Future Mobility

BVRLA

Cars in the City

Realising the future of urban mobility

Produced in partnership with

Global Counsel

About this report

Global Counsel was commissioned to research and write this report by the British Vehicle Rental and Leasing Association (BVRLA). It addresses one of the most pressing challenges facing urban centres throughout the UK and aims to offer practical ideas and recommendations for local and national policymakers.

The report is the product of extensive consultation with private sector mobility providers, local and combined authority representatives, central government policymakers, academics, transport stakeholder groups and industry specialists. This involved workshops in London and Leeds, and wide-ranging bilateral engagement with those shaping the future of urban mobility.

Global Counsel is an advisory firm, working with clients to navigate the critical area between business, politics and policymaking. GC's UK team have spent decades making and advising on public policy at the highest levels within Whitehall and Westminster.

The BVRLA is the trade body for the vehicle rental, leasing and car club sector. BVRLA members are responsible for a combined fleet of over five million cars, vans and trucks on UK roads – 1-in-8 cars, 1-in-5 vans and 1-in-5 trucks.

As technology changes every aspect of our economy and society, policymakers across local and national government have set out visions of how they want urban transport to be revolutionised.

Shared visions of future mobility

The pictures they paint all look the same: citizens contentedly commuting by foot, by bike, by bus and by train across a clean, tidy city landscape; happy families go hand-in-hand on the pavements, shaded by leafy trees, while workers pedal on shared bikes to bright, steel and glass offices. There are no cars parked up on the kerbside, apart from a few plugged into discreet, attractive charging points. The small number of cars on the road each contain four or five people and seem to glide silently, unencumbered by congestion.

This vision of future urban mobility is exciting, attractive, and laudable. How and when this vision is delivered represents a major challenge, particularly as cities across the UK continue to experience rapid population growth.

Two challenges

There are two reasons for this. The first is that limited budgets, limited powers and limited policy levers are fragmented across local and national government, with little in the way of coordination. Change requires concerted action across Whitehall departments, transport executives in the private and public sector and policymakers across several tiers of local government involved in areas as disparate as planning, parking and public health.

The second reason is that these visions ignore the car, for the most part. There are over 30 million cars on the road in the UK today but the way we use them now - and how we transition to a 'car-lite' future - is barely addressed. There is little or no acknowledgement of the different types of car use or the growing range of alternatives to car ownership, many of which can drive this transition.

Cars are part of the solution

Car rental, car clubs and other forms of flexible, pay-as-you-go car use can deliver fewer vehicles languishing on the kerbside; cleaner fleets causing less pollution; and lower costs for families who might currently be spending thousands a year running two or three vehicles per household. In this context, we need to think much harder about the role of the car in implementing the transition from today's urban transport systems to the ones we want in the future.

So, this report takes up the challenge of how we make sure people use cars in a more efficient, cleaner, cheaper, smarter way, leading to greater levels of public transport and active travel.

Policy leadership is needed

The first section explores the growing range of ways to use a car, how these new modes offer answers to some of the biggest challenges faced by cities, and why it is important to think about the kind of urban centres we travel in and who is making those journeys.

Section two sets out what national politicians and policymakers should do today to make our urban centres better places to live, work and raise a family. This starts by creating an ambitious new mission under the Future of Mobility Grand Challenge of putting the UK at the forefront of car sharing and intelligent car usership.

The final section provides practical tools and actionable policy ideas for local policymakers seeking to change the way cars are used in their towns and cities, grounded in global best practice.

Above all, this report demonstrates why cars, used intelligently, are a necessary enabler of change in urban mobility, rather than a barrier to it. A way to make those visions of the future a reality.

Summary of recommendations

For national policymakers

1 Policy leadership

1.1. Create a new mission under the Future of Mobility Grand Challenge of putting the UK at the forefront of car sharing and intelligent car usership.

2 Clean Air Zones

2.1. Require local authorities to promote flexible car options to households well ahead of the introduction of a CAZ, as part of broader efforts to ensure CAZs are well-communicated.

2.2. Promote the roll-out of Mobility Credits in CAZ areas to encourage behaviour change and mitigate the financial impact on those most burdened by the financial cost.

3 Spending

3.1. Provide five year forward certainty over local authority transport budgets.

3.2. Introduce a new Flexible Car Connectivity Fund to give local authorities the capital budgets to create change in car usership.

3.3. Increase current budgets to allow local authorities to invest in the skills and resource necessary to plan effectively.

4 Taxation

4.1. Commission an independent and wide-ranging review into the modernisation of the motoring tax system, to incentivise the use of cleaner cars and flexible forms of car use.

4.2. Develop a national road-user charging polic framework that can support cities and regions if they choose to implement local motoring charging schemes.

5 Mobility data

5.1. Support local authorities to open up and manage their mobility data in a consistent way by providing clear guidelines and guidance.

5.2. Ensure local authorities have visibility over the impact of new mobility modes on public transport by setting minimum transparency requirements for mobility providers.

6 Parking

6.1. Set a target for a percentage of parking spaces to be dedicated to flexible forms of car use, in collaboration with local authorities.

6.2. Maintain the requirement for parking revenue to be retained by local authorities for spending on transport priorities.

6.3. Prioritise flexible car use in the national parking data standards pilot projects.

7 Knowledge sharing

7.1. Create a single source of insight about urban mobility that cities can contribute to and learn from.

Summary of recommendations

For local policymakers

8 Urban Mobility Taskforces

8.1. Create Urban Mobility Taskforces to bring together the owners of mobility-related powers within the authority.

9 Parking

9.1. Digitise kerbside data and develop smart parking systems

9.2. Prioritise flexible car parking around important local infrastructure such as hospitals and transport hubs.

10 Planning

10.1. Use planning policy to prioritise access to flexible cars in new developments

10.2. Ensure commitments made under section 106 are spent, and drive changes in urban mobility.

11 Electric vehicles

11.1 Increase rates of EV charging infrastructure installation, co-ordinated with shared EV providers' plans to roll out more EVs.

11.2 Increase the Plug in Car Grant for shared EV providers.


20
Weakbridge
on A10
at Dalston
7.5t
Alternative
route
follow
20
London
Bridge
A10
Ring road (S)
Docklands
Westminster
Whitechapel
iPhone X

Re-thinking car travel

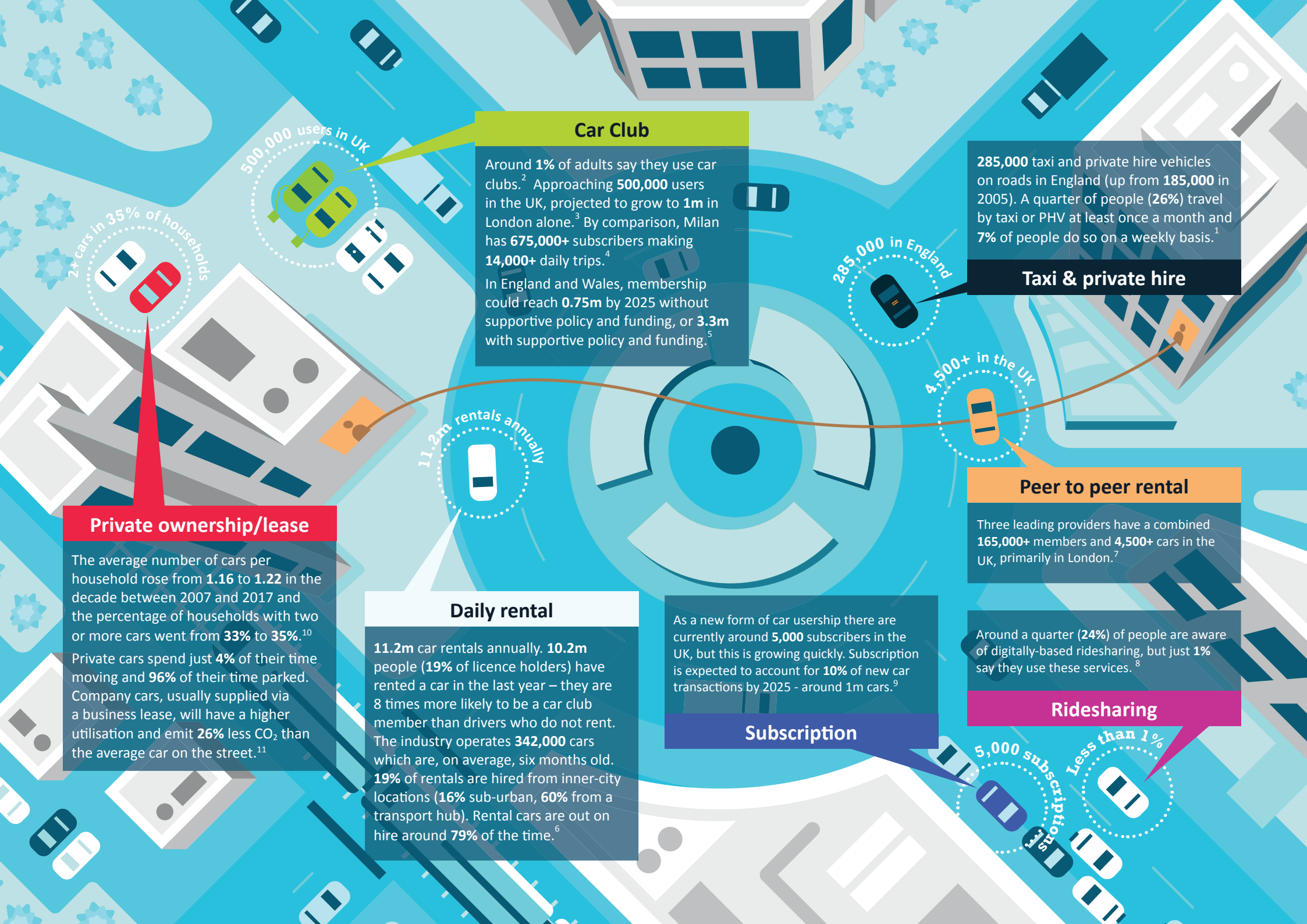
Most visions of the future for urban transport share at least one common theme: less reliance on cars and greater use of public transport and 'active travel', such as walking and cycling. This means households and employers making more considered choices about when to use cars, with greater awareness of the alternatives and access to them. So far so good.

The challenge is that very few of these visions give much thought to how to encourage people to make this transition, or to ensuring that the right car choices are available to people when they need them. Simply ignoring the car, or attempting to push it out of the picture altogether, is not a viable approach. Policymakers at national and local levels need conscious, considered car strategies in order to enable change in the way cars are used.

New car options

The starting point is to recognise that 'the car' is not one mode of transport, but many. A growing number of business models, from car clubs to subscription models, give households and employers the ability to make different choices depending on their specific needs.

While many households and employers see car ownership as the only option, this new spectrum of options will change our relationship not just with the car, but with mobility more broadly. It will unlock more flexible journeys which involve greater levels of walking, cycling and public transport, and where the car is used in a more thoughtful, considered way.



Car Club

Around **1%** of adults say they use car clubs.[2] Approaching **500,000** users in the UK, projected to grow to **1m** in London alone.[3] By comparison, Milan has **675,000+** subscribers making **14,000+** daily trips.[4]

In England and Wales, membership could reach **0.75m** by 2025 without supportive policy and funding, or **3.3m** with supportive policy and funding.[5]

Taxi & private hire

285,000 taxi and private hire vehicles on roads in England (up from **185,000** in 2005). A quarter of people (**26%**) travel by taxi or PHV at least once a month and **7%** of people do so on a weekly basis.[1]

Private ownership/lease

The average number of cars per household rose from **1.16** to **1.22** in the decade between 2007 and 2017 and the percentage of households with two or more cars went from **33%** to **35%**.[10]

Private cars spend just **4%** of their time moving and **96%** of their time parked. Company cars, usually supplied via a business lease, will have a higher utilisation and emit **26%** less CO_2 than the average car on the street.[11]

Daily rental

11.2m car rentals annually. **10.2m** people (**19%** of licence holders) have rented a car in the last year – they are 8 times more likely to be a car club member than drivers who do not rent. The industry operates **342,000** cars which are, on average, six months old. **19%** of rentals are hired from inner-city locations (**16%** sub-urban, **60%** from a transport hub). Rental cars are out on hire around **79%** of the time.[6]

Peer to peer rental

Three leading providers have a combined **165,000+** members and **4,500+** cars in the UK, primarily in London.[7]

Subscription

As a new form of car usership there are currently around **5,000** subscribers in the UK, but this is growing quickly. Subscription is expected to account for **10%** of new car transactions by 2025 - around 1m cars.[9]

Ridesharing

Around a quarter (**24%**) of people are aware of digitally-based ridesharing, but just **1%** say they use these services.[8]

The many modes of car use

Taxi & private hire

The hailing (taxi) or booking (private hire) of in-circulation vehicles for trips priced by a combination of miles travelled and time taken, usually with a form of dynamic pricing (related to time of day, level of demand, etc).

Car club

Typically charged by the hour or mile (or both), in addition to a subscription, some car clubs require cars to be returned to where they were picked up (round trip), others allow drop off at any qualifying station (point-to-point) and some allow cars to be be picked up and dropped off anywhere in the qualifying area (free-floating).

Daily rental

The traditional format of renting from a provider at their location, or having a rental car delivered to a specific location. Pricing is usually on a one-off, single-fee basis per day or part day, excluding fuel and insurance excesses.

Peer to peer rental

Where individuals rent their privately owned cars to others, via a match-making platform or club. As well as rentals from home, cars can be left at transport hubs (e.g. airports) for rental while the owner is away. Some providers allow small businesses to rent out their existing fleet and some providers combine platform-owned cars with those owned by individuals.

Ridesharing

Also called carpooling, this involves drivers giving up empty seats to individuals travelling to a similar destination. New platforms are allowing quicker and easier matching of cars to passengers.

Subscription

New models, which sit between rental and leasing. Most costs are bundled into a recurring monthly fee (e.g. tax and insurance), like rental, but on a longer-term (e.g. 12 month) basis.

Private ownership/lease

Typically purchased via a PCP agreement, usually with a three year duration after which a car can be swapped or purchased outright.

Car leasing is a form of long-term rental that provides access to a vehicle, usually for between two and four years, for a fixed monthly fee.

New car options mean fewer cars and less usage…

Critically, these new modes of car travel create the opportunity to reduce the number of cars on the road and reduce the number of journeys by car – while retaining the unparalleled flexibility offered by car travel. As the government itself recently noted "having access to a shared vehicle has been shown to lead to reductions in ... miles driven, as well as increased use of other modes of transport."[12] This a priority at a city level too – a recent survey of city leaders found that 'modal shift' is the second highest transport priority, after improving local roads,[13] and Greater Manchester has committed to limiting car use to less than half of all daily trips by 2040.[14]

Flexible car use can help drive this modal change because it leads to:

Fewer private cars on the road, through foregone private car purchases and disposals of private cars which are not replaced. Once people recognise that they have a greater range of car options, they only continue to own a private car where that is the best option for them – not simply the default.

- Le Vine and Polak found that 37% of users indicate that free-floating carsharing has impacted their ownership of private cars. Of this 37%, a large majority (83%) indicated that they decided not to buy a car that they otherwise would have purchased. 11% reported that they had disposed of a car in the past three months, and 6% stated that they will sell a private car within the next three months.[14]
- In 2016/17 in London, each car club car resulted in members selling or disposing of 10.5 private cars – accounting for more than 26,000 cars that year.[16]
- Milan sees car clubs as a major part of its strategy to reduce the number of cars in the city - from 507 per thousand inhabitants to 460 by 2024.[17]

Reduced mileage

- After joining, round trip car club members reported an annual decrease of 570 miles travelled by car, while flexible members reduced their mileage by 239 miles per year.[18]

Increased occupancy

- Rental cars have an average occupancy of 2.3 people compared to 1.6 for the average private car trip.[19]

Increased car utilisation

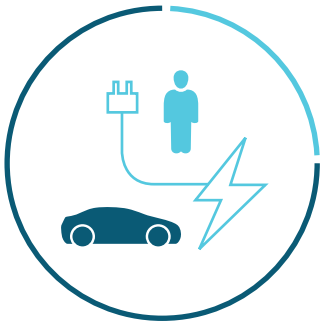
- The average private car sits on a drive or outside a house, unused, for 96% of the time.[20]
- The average rental car is out on hire 79% of the time.[20]

Fewer car trips and greater use of public transport

- Users of flexible car options are more likely to integrate other modes of travel into their journey, using the car only where it is genuinely the best choice.
- Round-trip car club members' travel by train is twice the average.[22]
- Cairns and Harmer found that car club users in central London make less than half the number of trips compared to private car owners, in particular because they make considerably fewer short trips (under 25 miles), which account for 95% of all car trips in London.[23]

...which in turn drives key public policy outcomes

The combination of the impacts above means that flexible car use can help address some of the most pressing urban transport challenges faced by towns and cities across the UK:



Only 21% of drivers in the UK have ever driven an electric car

Reduced congestion, by

- increasing the utilisation of the cars that are on the road.
- dramatically reducing the overall number of cars.
- better integrating car travel with other modes of transport such as local buses, and by reducing the number of parked up cars clogging up space on roads. The government recognised this potential benefit in its recent Future of Mobility: Urban Strategy document.
- Londoners spent 227 hours per driver in congestion in 2018 – almost ten days – with the UK average at 178, at a cost of £7.9bn or £1,317 per driver. Edinburgh (165 hours), Manchester (156 hours) and Leicester (155 hours) were the next most congested cities.[24]

Better air quality, because of fewer cars on the road, fewer journeys by car and because providers of flexible car modes provide newer, lower-emission cars and EVs than the average privately-owned car.

- The average carbon emission of the 2016 London car club fleet was 29% lower than the 2015/16 UK average car.
- Petrol hybrids, plug-in hybrids and battery electric vehicles comprise 17% of the London car club fleet but less than 0.5% of all UK cars.[25]

Healthier and more active populations, by better integrating flexible car use with active travel modes such as cycling or walking, and making households think more carefully about their use of the car.

- Round trip car club travel by bike is more than twice the London average, while flexible members' travel by bike is three times the average for the boroughs in which flexible car clubs operate.[26]

Technological inclusion by providing access to the latest, cleanest cars to those for whom full ownership is prohibitively expensive, either in absolute terms or in terms of cashflow – particularly electric vehicles. According to a recent survey, only 21% of drivers in the UK have ever driven an electric car.[27]

More space, by freeing up land dedicated to roads and parking as a result of fewer cars on the road and more efficient car and parking space utilisation. Around 15-30% of land in large cities is currently designated to parking spaces, with traditional cars remaining parked 96% of the time.[28]

Recognising the importance of people and places

The public policy benefits of more flexible car use are clear, but achieving change is difficult. An individual's use of the car will depend on a wide range of factors – meaning different car modes will be right depending on the context. For some, ownership will remain the best choice, while others will take the opportunity to move to more flexible options.

In particular, three factors shape how likely people are to make a change in the way they think about car travel:

1. The place they are in – the size and density of the city or town, including other transport options available to them such as active travel, public transport and the provision of flexible car modes (e.g. nearby car club bays). A suburban area with poor bus or train links may see a longer, more entrenched reliance on private car ownership. In a recent survey, 30% of commuters said they use the car because there were simply no alternative means of transport available.[29]

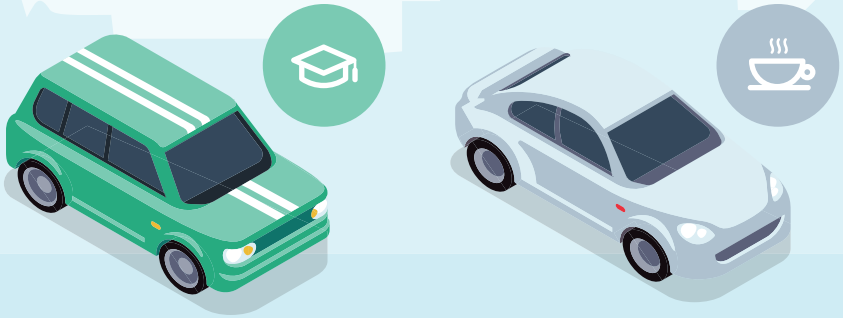
2. The purpose of their journey – ridesharing might be appropriate for a daily journey to work, but not for a trip to see relatives. A local car club might be the best choice for an occasional journey across town, but not for a long drive to another city. Daily rental might work well for a short holiday, but not for a family with day to day car needs.

3. Who they are – their age, income and propensity to adopt new technology are among the factors shaping likely uptake of new options.

A family with three children may be unable to drop a private car altogether, while a young person without children in central London could do so more easily.

The following illustration provides a framework for local policymakers to think through how these factors might inform their approach at a city level.

Matching cohorts to cars



Young person in education:

while there is evidence that young people are not learning to drive as early as they have done, non-ownership car use makes sense for this cohort due to the lower up-front costs of ownership, including insurance. While most car clubs have minimum ages in the early 20s, some have partnered with educational institutions to offer student access.

Young professional:

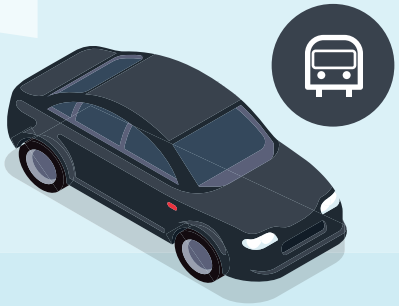
this has been the main target demographic for car clubs, accounting for around 50% of users in London.[30] Use is dominated by leisure, personal business and shopping – these professionals are not relying on flexible car modes for their commute.

Median income family:

likely to have higher car-ownership dependency given the complexities of car travel with children, including the need for car seats. However, a blend of a single privately owned car and flexible car access may be a better option than two privately owned cars – the number of households with two cars is at record levels (35%).[31]

Lower income family:

where private ownership is prohibitively expensive, flexible car options could offer these households regular car access for the first time, or substantially reduce the costs borne to own a car. Car ownership accounts for more than 20% of gross monthly earnings in the UK, and as much as 24% in East Anglia and the North West.[32] Widening access to flexible car use could make an impact on socio-economic inclusion – for example on job access - particularly where these households live in urban areas poorly served by public transport.



Long-distance commuter:

flexible car access could, as part of a multi-modal journey, replace the car as the default option for long-distance commuters. For example, flexible car solutions around major transport hubs – such as key commuter rail stations – could reduce the frictional costs of travelling by train, thereby boosting public transport usage and reducing congestion caused by inbound car commuters.

Retired:

likely to have owned a car for some time; may be looking for more flexible, lower-cost options if travelling less regularly (e.g. not for work) and to avoid the hassle of private car upkeep. But may have higher financial barriers to switching away from private car due to lower insurance costs and possibly having paid off / fully owning their own car. They may also be less likely to quickly adopt tech-based solutions (e.g. more than one in four people aged 55+ do not use a smartphone,[33] and only 9% of those over 65 said they were likely to use a Mobility as a Service app).[34]

Matching cars to places

The specific characteristics of urban centres around the country determine what kind of flexible car use may be appropriate. In particular, the quality of public transport options have a large impact on whether people can move to more flexible car usage – or stop travelling by car altogether.

For example, in inner London, 64% of people are within 15 minutes of the centre by public transport, but in the whole of Greater Manchester, including the outer areas, this falls to just 37%. And in a regional capital like Norwich, with a wide suburban and rural catchment, just 13% of the local population is within 15 minutes of the city centre.[35]

Large city core

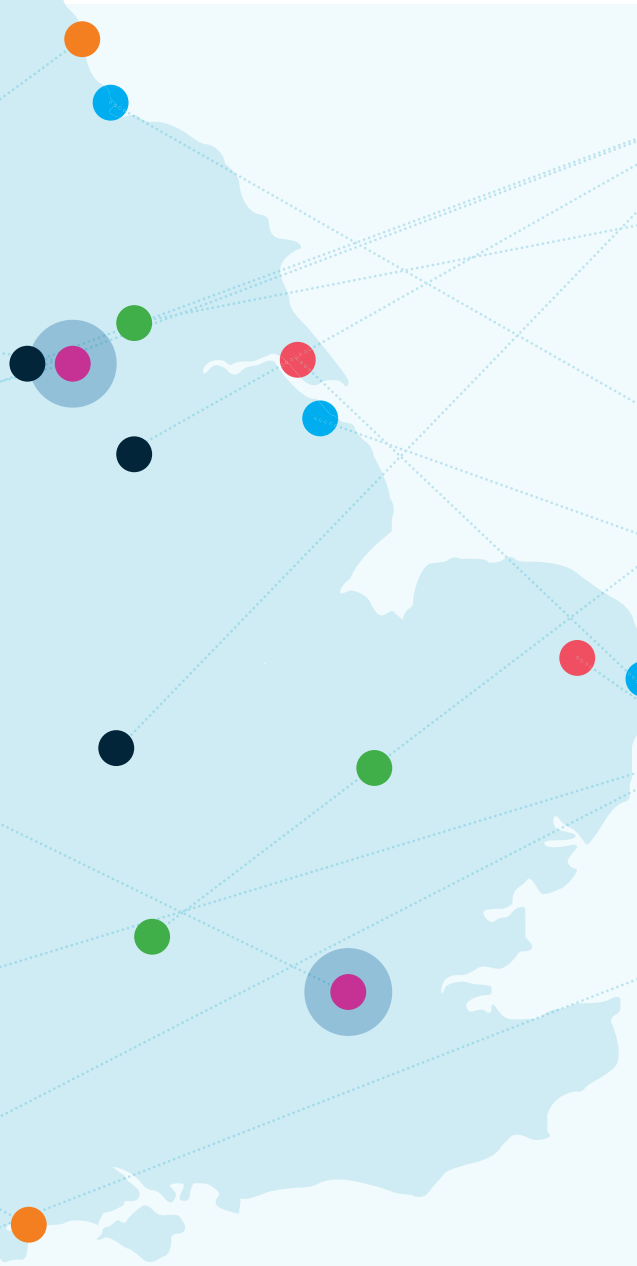
– such as central London, central Manchester, central Leeds. Flexible car penetration is highest, given dense urban cores with median to higher incomes, which are most likely to be profitable for new providers. Political and policy leadership tends to be strategic and proactive.

Metropolitan area

– such as North Tyneside, Bournemouth (Bournemouth, Christchurch, East Dorset, Poole). Geographically large areas of consistent urban and suburban footprint, but of lower density and without one single large focal point. The involvement of several local authorities and several urban centres may mean public transport links are not well integrated.

Large city outer

– such as greater London, greater Manchester, greater Leeds / WY. More challenging for flexible car providers given lower population and journey density, and typically lower household incomes. There may be potential for cross-subsidisation between the core and outer periphery of large cities, where local policymakers can take a pan-city view of provision.



‘Sibling’ town/city (smaller urban area next to a larger city)

– Warrington, Wolverhampton, Rotherham, Bradford, Bolton. The existence of a much larger nearby urban area shapes local transport patterns. For example, it may be possible to extend flexible car use from the larger neighbour city on a ‘spoke’ basis, to capitalise on inter-city transport flows.

University town

– such as York, Oxford, Cambridge. High population densities which fluctuate substantially around term times, often in small and historical urban centres. Suited to flexible car use given the scarcity of central parking and the desire to deter students from bringing privately owned cars to university, but younger student populations may encounter minimum age barriers for some types of car use.

Regional capital

– such as Norwich, Exeter, Cardiff, Hull. These cities tend to be more geographically isolated, i.e. with large suburban and rural ‘catchments’, making them the key urban focal point (unlike ‘sibling’ towns and cities). The urban core may be large and dense enough to allow flexible car use to flourish, but these cities typically have large daily inbound commuter flows from surrounding areas, meaning private car dependency may be more entrenched.

Coastal town

– Hartlepool, Grimsby, Lowestoft, Torquay. Relatively isolated and typically with more challenging socio-economic demographics and weaker local economies. While likely to be sub-scale for the majority of current flexible car models, these new options could open up car use to more households for the first time.

These factors shape how quickly, and in which ways, policymakers can encourage more considered, intelligent use of the car. ‘One size fits all’ will not work for different cohorts of people and employers, in different places, with different needs. The rest of this report explores how policymakers at both the national and local levels can take action to make change happen.

National policy: focus, consistency and awareness

Amid a spread of innovative, well-funded policy initiatives at a national level there is a risk that the role of new car modes is being overlooked – beyond the focus on connected, autonomous and electric cars.

The Future of Mobility Grand Challenge provides a good opportunity to put flexible car use back in the policy frame. The first mission of the Grand Challenge focuses on ensuring that all new cars and vans are effectively zero emission by 2040. The next mission of the Grand Challenge should be to put the UK at the forefront of car sharing and intelligent car usership, moving people away from having to rely on private car ownership.

Recommendation 1:

Policy leadership

1.1. **Create a new mission under the Future of Mobility Grand Challenge of putting the UK at the forefront of car sharing and intelligent car usership.**

The new mission would bring together policymakers from across the private sector and government into a taskforce dedicated to promoting intelligent, considered use of the car.

Rationale

The first Future of Mobility mission – putting the UK at the forefront of zero emission vehicles – has already shown the focus and drive that missions can bring to a particular policy goal. Applying this to car usership is the best way to promote more intelligent use of the car and secure the kind of behavioural change necessary to realise a lower-car, lower-emission future.

As an immediate priority, government should ensure that the Regulatory Review being carried out under the Future of Mobility: Urban Strategy lays the groundwork for this new mission.

This new taskforce will ensure that the car gets the policy focus it needs at a national level. At the core of the work is the need to ensure that people are aware of the wider costs of car ownership and the benefits of changing, and are able to change in practice.

Helping people understand their mobility options

Most people still equate cars with private car ownership: it sits on the drive or outside your house, and you use it as frequently or as occasionally as you want. Many people are unware of the range of flexible ways to use a car – for example, just 27% of people surveyed in December 2018 were aware of car clubs, compared with 45% for public bikeshare schemes and 73% for car rental. [36]

- People are anchored in the habit and tradition of owning a car. "It's what you do". Nearly 9 in 10 car users in England (87%) agree that their current lifestyle means they need to own a car, with a similar proportion (94%) saying they enjoy the freedom and independence their car gives them.[37]
- It is very difficult to compare the cost-per-mile of different car choices. A day of car club use might feel expensive to one group who compare it against a "free" day of using their own private car, without factoring in the large annual costs associated with ownership. iCarehireinsurance estimated that a London motorist doing no more than 2,000 miles a year could save £1,000 annually by using a car club rather than a privately owned vehicle.[38]
- People live in an area where alternative car modes – such as car clubs – are not available, and so they have not had the chance to see these modes in practice, or try them out.
- People fear a lack of availability when they need the car if it is not sitting outside their house. This is worse in areas with poor non-car transport links, e.g. bus and rail.
- Practical reasons affecting sub-groups like families with young children (car seats), people with disabilities (driving customisations) or older people (perhaps not digitally active).

As a prerequisite to encouraging people to make use of the right car mode for the right journey context, national policymakers need to lead the way in raising awareness.

Recommendation 2:

Clean Air Zones

2.1 **Require local authorities to promote flexible car options to households well ahead of the introduction of a CAZ, as part of broader efforts to ensure CAZs are well-communicated.**

2.2. **Promote the roll-out of Mobility Credits in CAZ areas to encourage behaviour change and mitigate the financial impact on those most burdened by the financial cost.**

Rationale

In a growing number of cities around the UK, Clean Air Zones (CAZ) are being introduced to deter driving, to encourage people to upgrade their vehicles and to tax the more polluting vehicles that continue to operate within the zone. In short, people are being asked to re-think their use of the car. But where awareness of other car options is low, people may feel unable to make a change – even though, for example, switching to a low or zero-emission car club may be the right option for them. In recognition of the role the car can play in longer term behavioural change, government should require local authorities to promote flexible car options to households well ahead of the introduction of CAZ.

To do this, government should draw on insight about what works from other campaigns such as 'Go Ultra Low' electric vehicle campaign or the 'Five a Day' nutrition campaign. This could draw on input on ways to "nudge" car owners – for example via DVLA/DVSA prompts when cars are taxed, or MOTed; or at a local level when people renew parking permits or sign up to auto-pay for CAZs.

Alongside awareness-raising, efforts to meet national air quality targets should support and enable changing car use through Mobility Credits. Mitigation funding from central government should focus on targeting households most burdened by the financial cost of Clean Air Zones. As part of this, the Department for Transport should issue councils with clear guidance on how to make mobility credits for mitigation work, and apply any learnings from this process into wider mobility credit trials that are being undertaken as part of the Future Mobility Zones announced in 2018.

Case study

Trialling Mobility Credits in Coventry

The West Midlands Combined Authority has approved a Mobility Credits pilot, in which a closely targeted group of drivers could benefit by up to £3,000 to cover the costs of foregoing their privately owned car. Credits will be added to a smartphone or travel card which can then be spent on public transport, car sharing and other schemes including electric vehicle hire. An app will help people to plan journeys and show how to earn credits. Around 100 individuals are due to take part in the trial, which will take place over the next two to three years.

Meanwhile Birmingham will introduce a Clean Air Zone (CAZ) during 2020, with cars to be charged £8 a day for travel inside the A4540 Middleway ring road. Birmingham has applied for a mobility credit scheme to mitigate the impact of the new charge, which is contingent on the award of central government funding. The credits would be focused on key workers within the zone, and remaining availability will be focused on those on lower incomes.

Creating the right incentives to choose different modes – including other ways of using the car

Once people are aware of the range of car options available to them, and understand those options, they are in a position to change the way they use the car. But they will only do so if the incentives (and disincentives) are right – awareness alone is not sufficient.

This will mean different things to different groups – e.g. a single, inner-city dweller aged 30 may require few incentives to adopt car club use, whereas a family on the outskirts of a market town will face a different set of requirements if they are to look beyond private car ownership.

Recognising the different incentives facing each driver cohort should be a core principle of national policy around motoring and urban transport – there is no such thing as a "typical" motorist for which a one-size-fits all policy can apply.

This means public policy must be consistent in how it treats cars and should avoid trying to 'force' people to change mode, without having the right incentives to make a switch. While disincentives to own and use cars will always be a part of the policy toolkit, this could have an adverse impact on households that do not have viable alternatives.

- **Putting strain on household and employer finances**
  - e.g. for individuals where charges and taxes make their current car unaffordable, but they have little ability to change travel options.
  - e.g. for employers where the costs of providing cars for employees, or allowing employees to commute by car, are driven up, without viable alternatives.
- **Reducing buy-in / goodwill towards change** – by making households and employers feel unduly penalised for using a car, thereby creating resistance to changing behaviour and hardening attitudes towards other modes of travel.
- **Reducing economic activity,** by preventing people from making the trips they need to make or making it more costly and time-consuming – whether to work, the shops or for leisure.

Critically, the incentives and disincentives to own and use cars are shaped by a wide range of government policies, not simply 'transport policy'. Four of these stand out: public spending, car taxation, the role of data, and parking.

This basket of policy levers needs to be considered in the round so that they are mutually reinforcing, not undermining, and with the forthcoming Spending Review, there is a golden opportunity to carry out this work.

Recommendation 3:

Spending

3.1. **Provide five year forward certainty over local authority transport budgets.**

3.2. **Introduce a new Flexible Car Connectivity Fund to give local authorities the capital budgets to create change in car usership.**

3.3. **Increase current budgets to allow local authorities to invest in the skills and resource necessary to effectively plan.**

Rationale

Core local authority transport funding should have the same longer term certainty as that for Highways England and Network Rail – a minimum of five years of forward visibility, as currently is the case in Greater Manchester. Without this it is difficult for authorities to plan for, and fund, investment that is required to drive change over a multi-year time horizon. [Government should also consider moving funding away from the competitive basis on which it currently operates, which requires large upfront investment from local authorities with no guarantee of results, and therefore little ability to forward plan.]

Five year budgeting should be combined with an uplift in local authority capital budgets for transport schemes which improve the integration between flexible car use, public transport and active travel – a Flexible Car Connectivity Fund. One of the biggest disincentives to giving up a private car is a fear that deficient public transport systems will not be able to fill the gap, or provide connectivity with an onward journey by shared car. For example, investment in urban metro, rail and tram links should ensure flexible car options are integrated into station upgrades.

An increase in local government current spending should also be made a priority using the headroom that now exists in the Government's spending plans. This will give local authorities more freedom to invest in the leadership and human capital required to transform urban mobility and help them to rely less on parking revenue for reliable funding.

Recommendation 4:

Taxation

4.1. **Commission an independent and wide-ranging review into the modernisation of the motoring tax system, to incentivise the use of cleaner cars and flexible forms of car use.**

4.2. **Develop a national road-user charging policy framework that can support cities and regions if they choose to implement local motoring charging schemes.**

This review would cover the range of car-related taxation including fuel duty, VED, company car allowances, benefits in kind & subsidies (e.g. for PHEVs / EVs). The objective would be to create a taxation regime that incentivises households to switch to cleaner cars and to make more considered choices about car usage, alongside public transport and active travel.

Alongside this review, government should develop a national road-user charging policy framework that can support cities and regions if they choose to implement local motoring charging schemes. Local authorities are already introducing forms of user charging via Clean Air Zones and it is likely that local charging schemes will become more widespread. The framework should consider devolution of revenue to local authorities to more directly fund local transport investment, rather than local spending being centrally allocated (for areas other than those with devolution deals). This should go alongside ensuring that the spread of local charging does not lead to double taxation for motorists, by establishing where and how national-level taxation and charging may need to be adjusted. Overall, consideration of user charging will need to address concerns around the overall cost burden on car use, balancing the aim of encouraging behaviour change with the need to ensure driving remains accessible and affordable for those who depend on it.

Rationale

The tax system has a major impact on the economic incentives for people to own and use cars. Over time, these incentives have been added to, changed and used for different purposes – such as the use of VED to push people into lower emission vehicles. Without the tax system creating consistent economic incentives for individuals to use cars more intelligently, and to use cleaner cars, creating behaviour change will be very difficult.

Recommendation 5:

Mobility data

5.1. **Support local authorities to open up and manage their mobility data in a consistent way by providing clear guidelines and guidance.**

5.2. **Ensure local authorities have visibility over the impact of new mobility modes on public transport by setting minimum transparency requirements for mobility providers.**

Rationale

Data sits at the heart of new mobility models, including flexible car options, and can be a powerful tool to drive change. But 'rules of engagement' are needed to ensure that local authorities have the confidence and ability to interact with providers to ensure that the data underpinning urban transport ecosystems is appropriately opened up and managed. This is particularly important where local authority owned data is being shared with external providers. The Future of Mobility Strategy Regulatory Review (underway at the time of publication) is one vehicle for developing these guidelines.

While some have suggested that local authorities (and transport authorities like TfL) build unified data/API platforms for providers to plug, this is unlikely to be an effective use of time and resource. Instead, the focus should be on equipping local authorities to make the data they do have accessible, with the right safeguards and on appropriate terms. For example, councils may want rights of access to some of the insights gained through the use of their data, or reciprocal requirements whereby mobility providers share some of their own data back to the local authority – again, with appropriate protections in place for the provider.

These insights are particularly important where they allow local authorities to understand and manage the impact of new mobility modes on existing public transport, particularly where services are at risk of becoming financially unsustainable (e.g. subsidised bus routes). Minimum transparency requirements for mobility providers – e.g. over pricing and usage – should be set to ensure local authorities can access the necessary data.

Recommendation 6:

Parking

6.1. **Set a target for a percentage of parking spaces to be dedicated to flexible forms of car use, in collaboration with local authorities.**

6.2. **Maintain the requirement for parking revenue to be retained by local authorities for spending on transport priorities.**

6.3. **Prioritise flexible car use in the national parking data standards pilot projects.**

Rationale

Parking can be a key enabler of more flexible forms of car use, or a barrier to change. Limited access to parking is one of the main constraints on car club expansion – targets for allocation of spaces to flexible car use can unlock a step change in the availability of new car modes, which is still very limited outside of London.

National policymakers need to help local authorities, which control parking, to use it as a strategic transport policy tool. Removing the requirement to re-invest parking revenue into local transport priorities would risk undermining transport funding and increase the temptation to use parking as a revenue-raising tool.

The recently-announced national parking data standards project is an important step in creating a nationally-consistent language for local authorities and technology providers looking to open up their data and improve the parking experience. The four R&D pilots and seven projects yet to be commissioned should prioritise ways to use newly-opened parking data to promote flexible car use, including car clubs.

Case study

City approaches to cars in Europe

A number of European cities are taking the lead in attempts to encourage more intelligent car use in city centres, using a blend of carrots and sticks.

In Spain, Barcelona and Madrid are phasing in measures that will limit city centre access to low-emission vehicles.[39] Given that flexible car use is the main way for most households to access electric vehicles, it will become the de facto way of travelling by car in these city centres. Barcelona is also piloting 'superblocks' which prioritise pedestrians, limit car access and restrict speeds.

Oslo has used parking as its primary tool, removing 700 on-street parking spaces to discourage car use, while increasing the number of electric vehicle charging points to almost 2,000 by the end of 2019, up from 1,300 at the start of the year. This is enabled in part by the high prevalence of electric vehicles in Norway – at 31.2% of registrations in 2018 compared to just 2.2% in the UK.[40] [41]

Meanwhile Hamburg is taking a spatial approach, investing in a "green network" – a series of connected spaces including parks, playgrounds, sports fields and cemeteries that aims to make it easier to move through the city by cycling and walking.

Recommendation 7:

Knowledge sharing

7.1. **Create a single source of insight about urban mobility that cities can contribute to and learn from.**

Rationale

Each urban centre has a specific set of characteristics and challenges, meaning that a 'one size fit all' policy approach at the local level will not work. However, as cities seek to drive similar changes to urban mobility, there is value in ensuring that lessons can be shared between local authorities about what is effective, in which circumstances, and why. Housing this insight in a single, one-stop-shop will allow it to be added to and shared more effectively than relying on informal networks and ad-hoc exchanges of best practice.

To host this knowledge centre, government should seek a well established, not-for-profit organisation which has good relationships with both urban local authorities, stakeholder groups and the private sector.

Cars at a local level

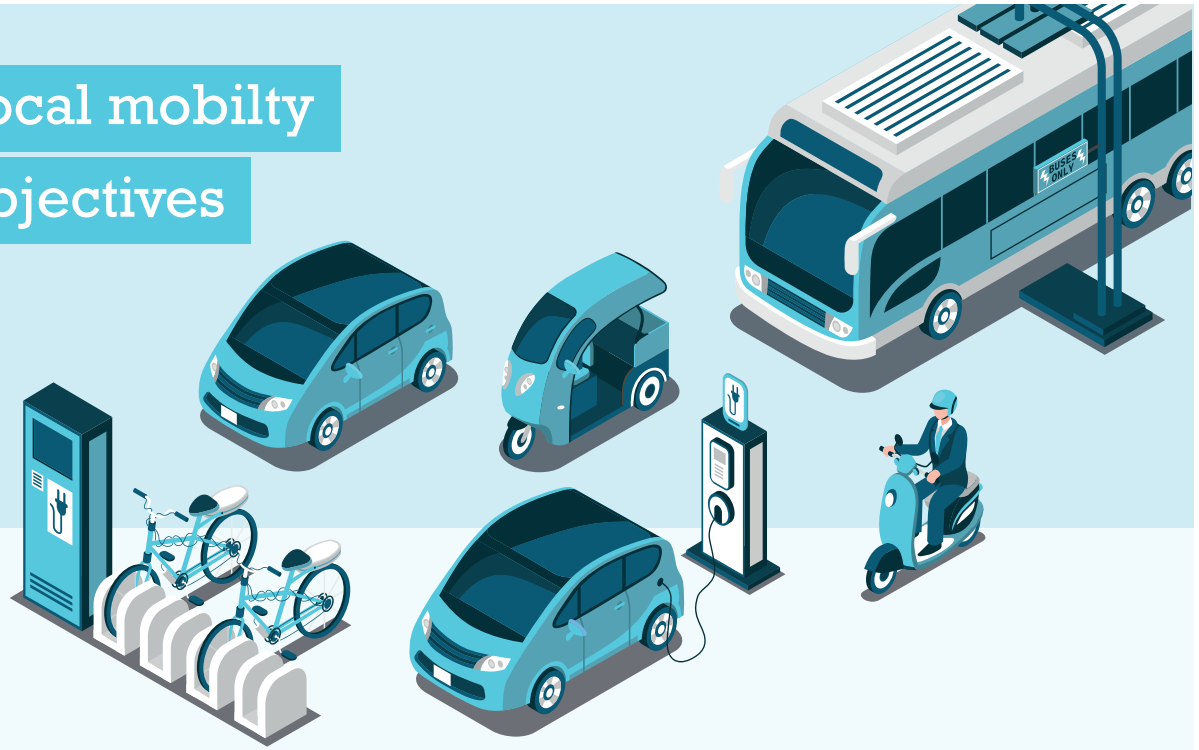
Similar priorities and challenges...

Although every town, city and city region is different, all local policymakers share a set of common priorities in thinking about how to improve urban mobility.

The vast majority of local actors have a similar set of overlapping challenges:

- Integrating modes, as patterns of usage change and the physical footprint of urban areas expands and evolves.
- Understanding and regulating new forms of technology / disruption such as ride hailing, micromobility (bikes/scooters), mobility platforms (MaaS – see case study) etc.
- Getting procurement and franchising right where the public sector is funding, buying or licencing new modes.
- Budgetary constraints as local government finance evolves (e.g. reduction of the block grant. devolution of business rates, and funding cuts more generally).
- Keeping constituents engaged - delivering against their needs but not moving 'too far too fast', and avoiding political pitfalls (e.g. CPZ controversy).

Local mobilty objectives



Tackle the negatives:

- **Air quality:** by tackling emissions
- **Congestion:** by reducing road use and making it more efficient
- **Noise:** by reducing vehicle use
- **Climate change:** move to non-carbon fuels
- **Accidents:** by promoting safe, reliable forms of transport

Promote the positives:

- **Health/activity:** by promoting active travel and use of public transport
- **Social inclusion:** by giving more people access to a range of affordable mobility options
- **Journey speed/convenience:** by creating efficient, direct journeys
- **Economy (productivity, investment, jobs, growth):** by cutting down on wasted time and better connecting places

Case study

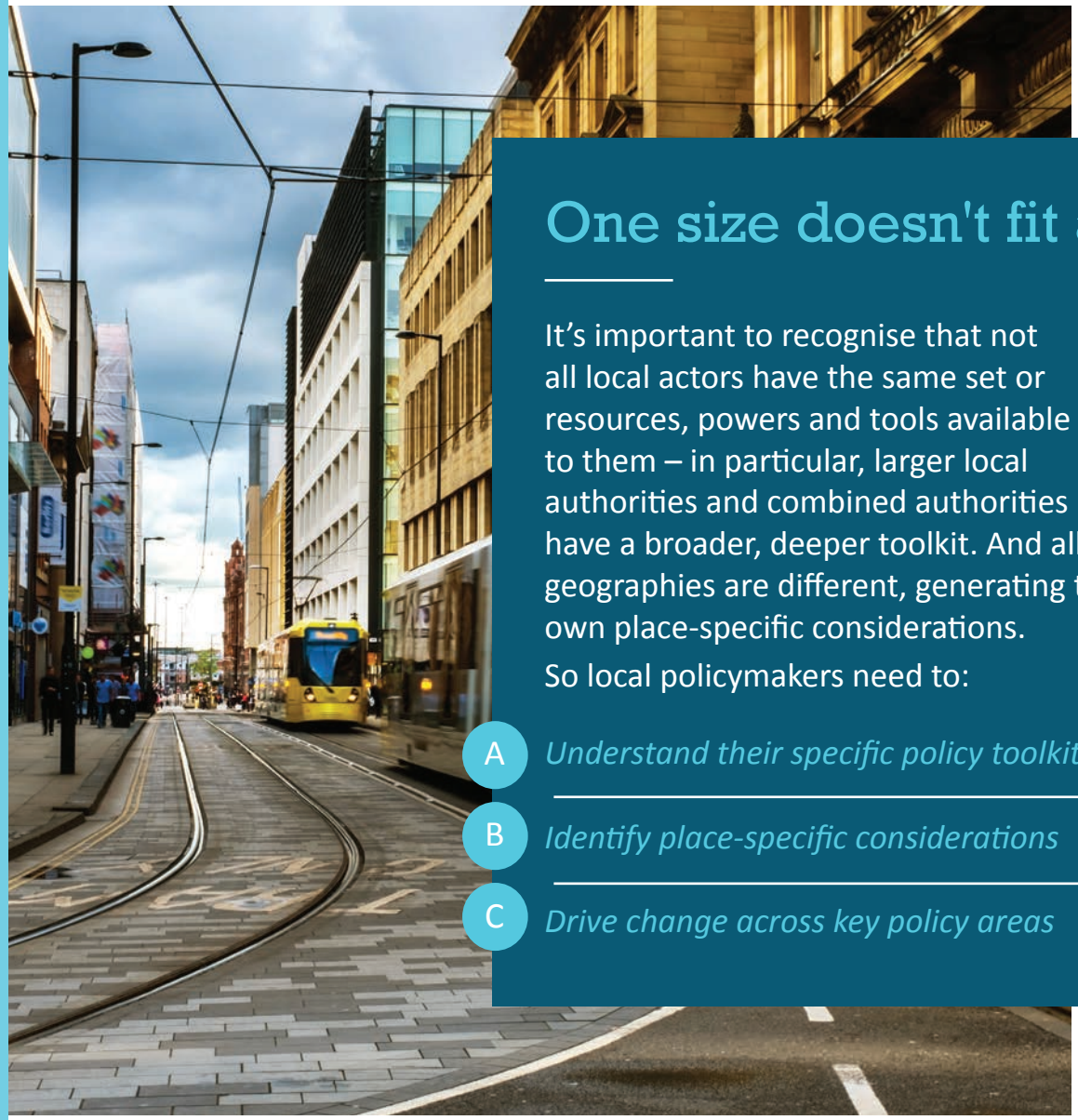
Maas4EU trial, Manchester[42]

Mobility as a Service is the integration of access to various forms of travel into a single service accessible on demand, usually via a smartphone or smartcard, and potentially enhanced with features such as journey planning and/or live updates. Almost one in four (23%) of people said they would reduce their use of a car if a MaaS app was available to them.[43]

The Maas4EU Trial in Manchester brings together seventeen partners from all sectors (academia, industry, users, transport authorities and ministries) to develop a viable Mobility as a Service (MaaS) solution.

The main goal of MaaS4EU is to provide quantifiable evidence, frameworks and tools to help the development of MaaS – in short, to find out what works best. To undertake the project a 'living lab' has been established in Greater Manchester and individuals have be recruited to use the services in real life conditions, while their travel patterns are evaluated during their use of the services.

The result will be the definition of user models which can inform personalised mobility packages for MaaS service planners. Around 400 individuals are being recruited in Greater Manchester, to use the services for four months to enable an in-depth data gathering exercise, allowing partners to thoroughly evaluate and understand travel behaviour and customer experience.



One size doesn't fit all

It's important to recognise that not all local actors have the same set or resources, powers and tools available to them – in particular, larger local authorities and combined authorities have a broader, deeper toolkit. And all geographies are different, generating their own place-specific considerations.

So local policymakers need to:

A *Understand their specific policy toolkit*

B *Identify place-specific considerations*

C *Drive change across key policy areas*

A Understand the policy toolkit

Policymakers need to identify the powers at their disposal to enable and drive change. This is a patchwork across the UK depending on the level of devolution and the political context.

Mapping the local policy toolkit

'Car policy' at a local level is really a combination of a wide range of policies, powers and people. Effectively harnessed, this suite of tools can drive real change in the way car owners and users decide to travel in urban areas.

Local authorities

Local transport policy – such as road usage (bus and cycle lanes), mode franchises (bus, tram, etc). Limited oversight of bus routes and fares is a challenge here.

Spending (current and capital) – in flux, due to the (delayed) devolution of business rates revenue and commensurate reduction in central government block grant funding.

Parking – the 'Cinderella' of urban mobility policy at a local level. Can be a huge driver of change – e.g. enabling car clubs and flexible car use – or a barrier to it.

Planning policy - including use and enforcement of Section 106 commitments.

Clean Air Zones - ability to levy clean air charges[44] over a specified geographical area.

Road closures or access limitations – such a restrictions to cyclists, pedestrians or EVs only.

Variable speed limits – e.g. at 15 or 20 miles per hour on a street-by-street basis (with Department for Transport approval).[46]

Leadership / convening power – setting out a vision and uniting key actors behind it, from across the public, private and third sector.

Buying power / licencing power – a major source of influence over the way urban mobility develops, as new tech-led models are introduced.

Public health – an important driver of aspects of urban mobility policy where related both to air quality and activity / active travel.

Combined authorities

Strategic transport policy – wider powers over a larger area. Usually more integrated. Potentially more direct oversight of the bus network, e.g. in London.

Spending – budgets are typically larger and more flexible, and potentially devolved. Access to earlier and larger shares of the Transforming Cities Fund.

Parking – powers are typically the same, retained at the level of boroughs/ councils within a combined authority.

Planning policy - usually more significant - e.g. over major local infrastructure decisions and via authority-wide strategic plans.

Clean Air Zones - cover a larger single chargeable area. Zones may also 'stack' – for example, Wesminster Council in London is introducing wider additional parking charges for older diesel cars, on top of London's Ultra Low Emissions Zone (ULEZ).[45]

Road closures - powers are typically the same; different roads in close proximity may be controlled at more than one level (e.g. some by local council, some by combined authority).

Variable speed limits - typically the same; as above different roads in close proximity may be controlled at more than one level (local/combined authority).

Leadership and convening power - substantially larger / wider, but therefore more consensus-driven (where several local authority areas need to agree).

Buying / licencing power - usually much greater, over a wider economic geography. Reaching minimum levels of scale to make new car modes viable is likely to be easier for combined authorities.

Public health - powers are usually the same, but combined authority / mayoral oversight can provide more visible leadership on health issues.

Once the policy toolkit is identified, it is also important for local policymakers to map out which individuals and committees are responsible for each car-related power within the authority's control, given that the ability to affect car usage will be distributed across a wide range of people.

This mapping exercise will underpin the establishment of Urban Mobility Taskforces to better focus on how to drive changes in urban mobility (see Recommendation 8, opposite). Alongside this, local leaders need to establish where they have emerging skills gaps, particularly in managing the complexity of new mobility platforms.

Recommendation 8:

Local policy co-ordination

8.1. Create Urban Mobility Taskforces (UMT) to bring together the owners of mobility-related powers within the authority

This would include, for example, those responsible for parking, public health, sustainable transport, economic development and planning. This is a particular priority for areas without overarching transport authorities such as Transport for the West Midlands.

UMTs would be charged with taking a holistic, strategic view of the authority's activity as it relates to urban mobility, ensuring that otherwise disparate decisions all drive towards the same set of objectives. One of these objectives should include ensuring that drivers have the awareness and ability to use cars flexibly and in an intelligent way, rather than simply relying on privately owned cars. Others would include exploring how to digitise kerbside data (see recommendation 9, page 28) and how to ensure planning policy contributes to changes in urban mobility (recommendation 10, page 29).

Taskforces should prioritise collaborative engagement with private sector providers who can advise on the commercial realities of introducing new and different forms of urban mobility, including flexible car providers, new Mobility as a Service (MaaS) solutions, bike and scooter schemes, and public transport operators involving bus and rail.

Case study

Urban mobility governance in Hamburg

Hamburg is a world leader in new urban mobility and currently has 12 active projects across the city, under an overarching Intelligent Transport Systems (ITS) strategy. Projects range from the piloting of on-demand shuttles to the smart co-ordination of construction sites and dynamic parking management.

To provide effective governance for the ITS, Hamburg has created a Project Management Office (PMO), which:[47]

- Plans and organises overarching projects
- Initiates new ideas
- Manages communication between various public and private bodies
- Manages ITS-related procurement, funding and subsidies
- Is the point of contact for third parties (businesses and scientific institutions). It leads, supervises and evaluates the dialogue with business representatives, information centres and research facilities concerning ITS topics and projects.
- Represents the city of Hamburg on a number of national and international boards and stakeholder groups.

The PMO provides the kind of direction-setting, focus and governance role envisaged for Urban Mobility Taskforces.

B Identify place-specific considerations

Along with different powers, local actors are starting from very different places given their unique local circumstances. This affects the speed at which they can bring in different car and broader mobility options, and the viability of those options for different parts of the local population.

An early task for UMTs would be to ensure that the specifics of the local area are fully understood and integrated into urban mobility planning (see Visual: the importance of place).

The importance of place

Economic geography

- Geographic size of urban centre
- Proximity to other urban centres
- The Travel to Work Area & key travel corridors
- Dominant industries (e.g. manufacturing, services, tourism, etc)

Regional transport links

- Regional road & motorway connections
- Rail links
- Port & river connections

Local transport

- Quality and blend of bus, tram, local rail & metro, car clubs, private hire, bike sharing, etc
- Average travel time to key services (such as schools, hospitals and urban centres) is a useful indicator of the quality of existing provision. Granular data produced by DfT can be accessed and analysed, for example to produce rankings of urban areas by quality of transport links[48] [49]

Budgeted pipeline of transport infrastructure development

- Macro – regional and national linkages (e.g. HS2, Cross-rail)
- Micro (cycling infrastructure, bus lanes, new trams / metros, charging infrastructure)

Household demographics

- Age, incomes, dependent children, existing levels of car ownership and usage, attitudes to travel
- See the visual “matching cohorts to cars”

Governance

- The number and diversity of local authority areas which constitute the urban area. This is often just one – a city council – but in 30 of the UK’s 63 ‘Primary Urban Areas’ there is more than one local authority,[50] making decision-making more complex
- Parking powers are usually split between a borough or district council (on street) and a county council (on street), as in Harrogate (see case study)

Stakeholders

- Key private sector providers, public transport owners/operators, new technology-based providers, local transport/campaign groups, local charities (e.g. representing elderly people or those with disabilities)
- Urban Mobility Taskforces are a way to ensure these disparate perspectives are drawn together (see recommendation 8)

C Drive change across key policy areas

Once local authorities have mapped our their policy toolkit, established a Taskforce to provide focus and governance around urban mobility, and identified their place-specific considerations, they are in a position to begin driving real change.

Across parking policy, planning, and support for EVs, a series of actions can help ensure that drivers can make more intelligent and considered use of cars, and greater use of public transport and active travel.

Recommendation 9:

Parking

9.1. **Digitise kerbside data and develop smart parking systems.**

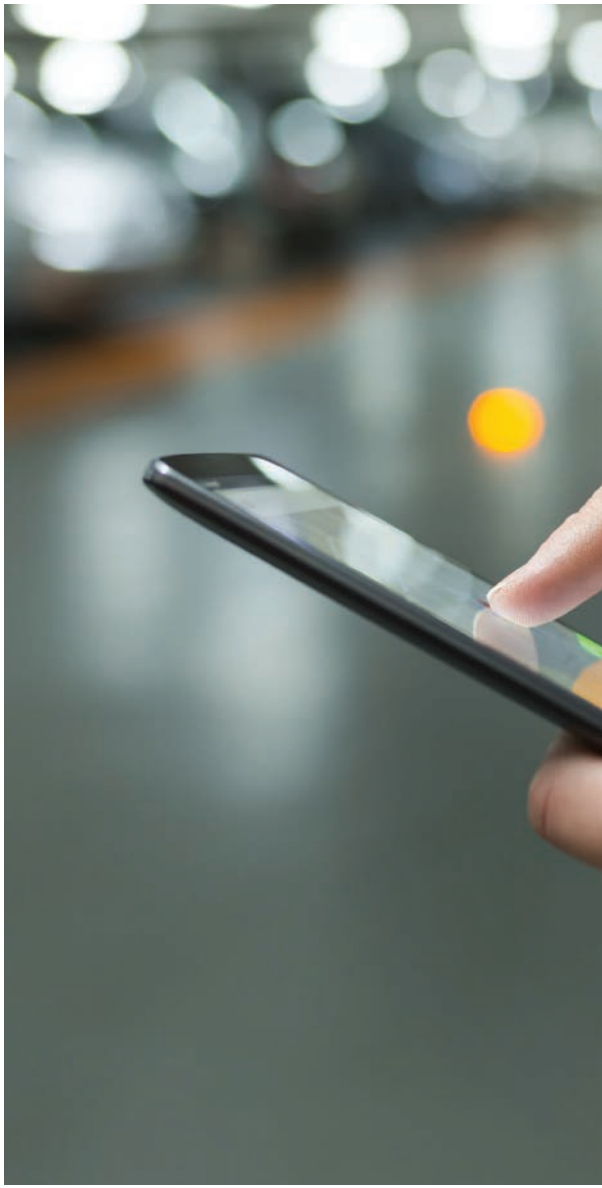
9.2. **Prioritise flexible car parking around important local infrastructure such as hospitals and transport hubs.**

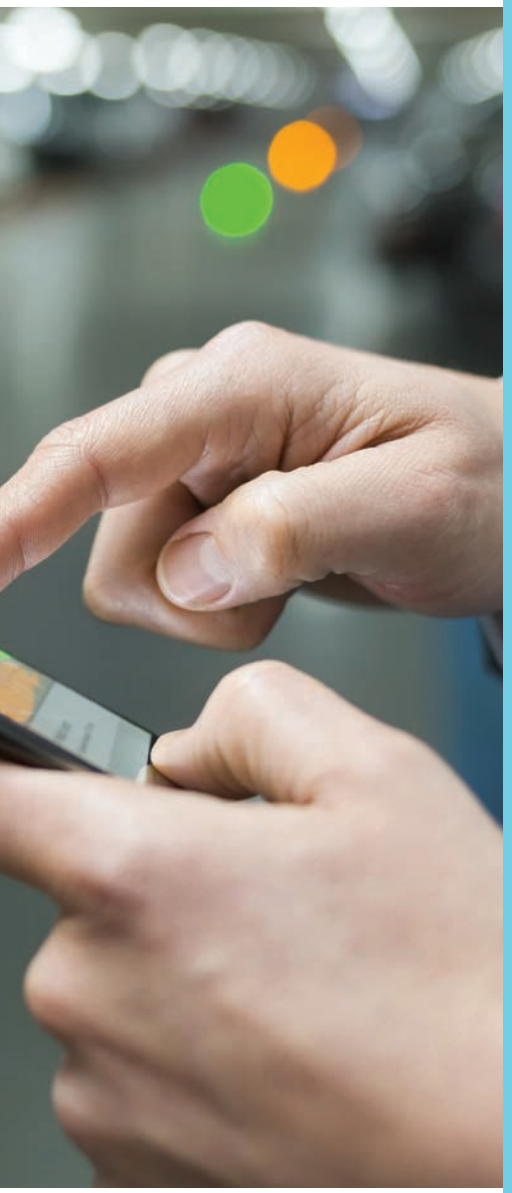
Rationale

Parking is one of the prime levers local authorities have to drive behaviour with relation to car use. Because parking data is often stored in outdated, analogue formats, it is difficult for local authorities to properly use this lever to drive positive change in their areas. These authorities should therefore use their Urban Mobility Taskforces to investigate how they can digitise kerbside data.

This will then allow smart parking systems to be developed for their local area through Mobility-as-a-Service apps, and councils to vary the price of parking spaces to manage demand and optimise revenue, make parking permit and ticket purchases easier, and reduce congestion from cars circling for parking spaces. It also potentially monetises kerbside use by ride hailing and other vehicles, such as those used for deliveries. (See Harrogate & Cornwall case studies).

By unlocking the ability to manage parking revenue more effectively, it opens the prospect of allowing more parking space in a local authority area to be allocated to flexible car providers. This is because local authorities need not fear loss of revenue from prime kerbside space being taken up by flexible providers. Flexible car parking should be prioritised around important local infrastructure such as hospitals, large local employers and transport hubs.





Case study

Digitising parking in Harrogate and Cornwall

AppyParking in Harrogate

In Harrogate, AppyParking installed 2,156 smart sensors and consolidated digital parking data, parking payments, ANPR barriers and linear (pay per minute) pricing into a single tool with accompanying mobile app. The app includes real-time parking space availability and parking sessions that end automatically when the car drives away.[51] The two local authorities involved believe that users travel shorter distances to find parking, reducing traffic flow and congestion.

JustPark in Cornwall

In December 2017, JustPark became the mobile parking payments provider for Cornwall Council across 150 sites covering 250,000 customers. The JustPark app allows users to find a vacant space, pay for parking and top up without having to return to the car park.

Cornwall Council estimates that the service will generate savings of around £140,000 each year by reducing the cost of operating its car parks, including in cash collection and machine maintenance.

Recommendation 10:

Planning

10.1. **Use planning policy to prioritise access to flexible cars in new developments.**

10.2. **Ensure commitments made under section 106 are spent appropriately.**

Rationale

Planning is one of the most important tools local authorities have to create change in the physical environment, which in turn plays a big role in shaping urban mobility. Planning can be used to unlock long-term change in the way cars are used.

Sustainable travel, including car clubs, is listed as something planning officials should give regard to in the Government's National Planning Policy Framework, albeit with greater reference to prioritising pedestrians and cyclists. Local authorities should be bolder in asserting the importance of developments supporting flexible car modes. For instance, local authorities could require a certain number of flexible car bays to be provided for each new development – perhaps as a proportion of the number of dwellings. Vancouver does a version of this by allocating planning 'points' for desirable features – including car club bays.[52] This will give residents in those sites greater confidence that they will not need to rely on private car ownership in order to travel.

Funding provided to councils under Section 106 of the Town and Country Planning Act 1990 often goes unspent or is not strategically focused on changes to urban mobility. These contributions, paid from developers to local authorities often to provide mitigating funds for necessary infrastructure for developments, should be fast tracked for quick assignment to projects, including paying for new flexible car bays and EV charging points. New provision should be appropriate to the development – for example, new car club bays will be most effective in denser urban areas where off-street residential parking is limited.

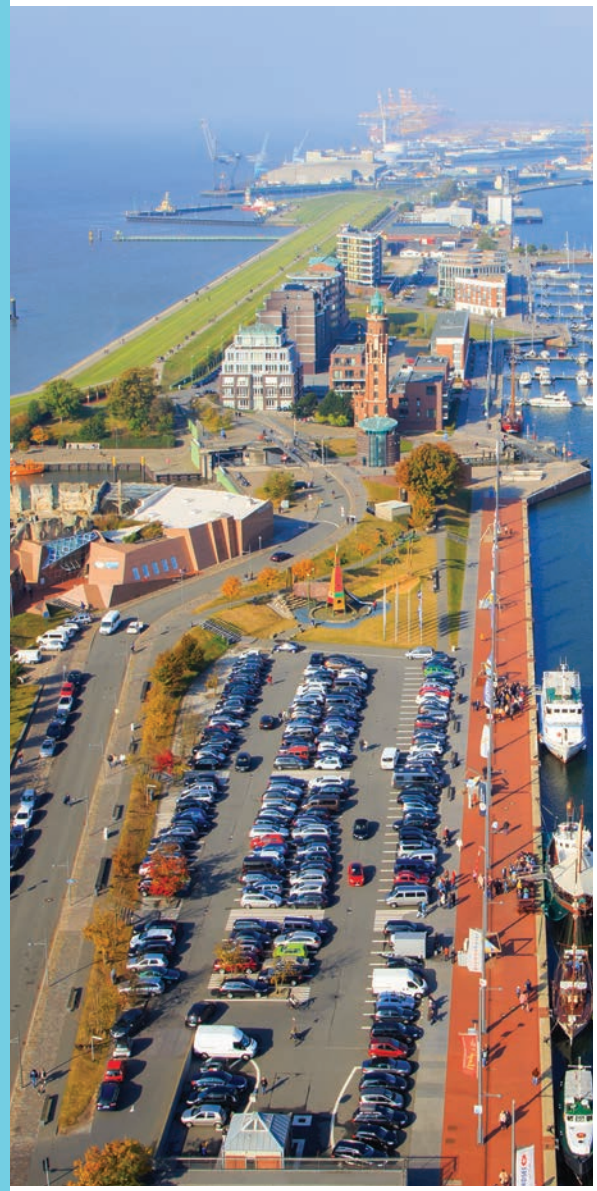
Case study

Learning from Bremen

Bremen has demonstrated the potential of car clubs as a way to improve urban mobility. Key to its success was in pioneering the model of making public land available to station-based car sharing as a 'special land use', requiring a change to local law in 2003. The special parking stations integrate car clubs with bike racks and transit stops, known as mobil.punkte and mobil.punktchen intermodal mobility hubs.

When combined with a travel card which allows for payment for both the car club and public transport, this means that shared cars are fully integrated into the city's transport network. Bremen has also systematically integrated car clubs into new housing developments and restricted the construction of new private parking spaces.

An analysis found that, by 2017, just 317 available car club vehicles had led to c5,000 fewer privately owned vehicles in the city.[53] Car sharing users travelled more than 50% fewer kilometres by car than non users, replacing this with use of public transport and active travel. Parking demand in the city centre has also fallen, reducing congestion and improving air quality.



Recommendation 11:

Electric vehicles

11.1. **Increase rates of EV charging infrastructure installation, co-ordinated with shared EV providers' plans to roll out more EVs.**

11.2. **Increase the Plug in Car Grant for shared EV providers.**

Rationale

As flexible car providers have a commercial imperative to keep their fleets up-to-date, car club vehicles typically adhere to the latest, most rigorous emissions standards on the market. This also means that flexible car providers will be at the forefront of putting the latest electric vehicles onto the streets, increasing drivers' exposure to EVs and driving up adoption rates.

However, flexible car providers are hampered by a lack of fast charging capability required to deliver widespread take up of EVs. To counter this, local authorities should ensure they bid for subsidies related to installing charging infrastructure, co-ordinating it with specific plans from flexible car providers to roll out more EVs in their area.

Government should also ensure that it continues to be financially viable for flexible EV providers to put EVs into circulation, by increasing the Plug In Car Grant for shared EV operators.

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