Car Free Visions

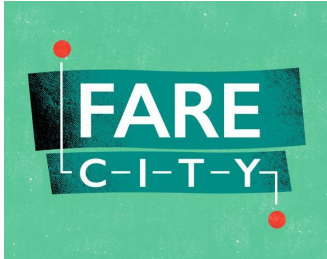**Exploring post-car-dependent futures in Birmingham, Bristol, Leeds and London**

January 2023

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Inspiring climate action

Possible is a UK based climate charity working towards a zero carbon society, built by and for the people of the UK.

www.wearepossible.org

Fare City is an award-winning London-based think tank and social enterprise. Our mission is to co-create fairer cities through the promotion of more accessible, equitable and sustainable city transport. Our team of built environment professionals uses an evidence-based approach which strives to empower city users to make reasoned mobility choices which are right for them and others.

www.farecity.org

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About the authors

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Executive Summary

Purpose of the report

Fare City is supporting Possible to help the charity deliver its Car Free Visions project. The project aims to engage with stakeholders across four UK cities, Birmingham, Bristol, Leeds, and London, to help stakeholders envision what a car free future may look like in their respective cities. Fare City has been asked to conduct preliminary research in the form of a rapid literature review, the findings of which have then been developed into a series of interview schedules and used by the Possible team to conduct interviews with experts in each city. Fare City then analysed each interviewee's response before collating findings and providing recommendations, as found in this project report. The report will assist the Possible team to develop city-specific stakeholder workshops.

Research question

Fare City and Possible have developed a research question to be considered at all stages of the project, from the literature review to the stakeholder workshops:

How can we ensure our cities look, feel and operate equitably in a post-car dependent age?

The research question contains several key characteristics that the project team has endeavoured to address throughout the course of the research. Three key identified research themes – city infrastructure, city governance, and city identity – were used to structure the expert interviews. Fare City have since developed these themes based on analysis of the key findings of the interview data. This has helped inform the project recommendations.

Report structure

The report is wide-ranging in scope owing to the breadth and depth of the experts interviewed. Not all content could be included in the report, nor could all suggestions in the report recommendations. The report is structured to reflect the three developed themes, each of which has been broken down into five subthemes. This has enabled the research team to drill down into the complexities and nuances of the different spatial, operational, and cultural factors at play. Aside from the overarching report findings, recommendations and workshop prompts, the report also includes a series of city-specific workshop prompts. These are designed to provide campaigners with more specific points for discussion in their respective workshop and can be better understood in the context of the main text. A section on further discussion has additionally been included at the end of the report.

A note on 'car free'

'Car free', 'car free cities', and 'car free futures and/or visions' are terms that are used regularly throughout the course of the report. As noted by the Possible team, several interviewees stated that they were not comfortable with the term 'car free' if taken to be literal. In the context of the report, and for the purposes of clarification, the use of any of the above terms is not used to denote a city that is completely free of cars but rather a substantial reduction in the use of private cars so that cities are free of the dangers, pollution and emissions caused by car dominance and dependence.

Overview

As the project research has made clear, transitioning to car free cities will not be an easy undertaking. It will require individuals and authorities alike to make difficult and often unpopular decisions, which will disrupt some of the ways in which people live their lives, and affect how cities function. However, doing so is not only essential from an environmental, equitable, and

economic standpoint, but may enable a city's inhabitants to enjoy more engaging, more inclusive, and culturally richer places.

A sense of place should be positioned at the heart of any strategy designed to reduce car use in cities. This is not only because place forms the tangibles: how a city looks, feels, and functions, but because it also informs the intangibles: a city's trajectory – how it perceives and projects itself – from the regional to the international. The report highlights that cities are complex ecosystems and that no one policy or programme can be delivered in isolation. Each city authority must choose the trajectory on which it wishes to position itself and develop a coherent aim, strategy, and set of tactics for how it may realise this ambition.

What the report recommendations do make clear is that any complementary car free measures must aim to normalise a car free city insofar as practicably possible. This will necessitate a level of trust between different city stakeholders, require a clarity of narrative, a willingness to build consensus, the perseverance to design and deliver, and the leadership to take responsibility and be held to account. Cities and their stakeholders are subject to both internal and external forces that will present ongoing challenges to implementing car free measures. It is up to city authorities and their stakeholders to make the case that with fewer cars, cities can be more united, more resilient, and more socially just places – better positioned to withstand the unprecedented times we live in.

Shared city findings

Theme One: City Infrastructures

Finding 01

The report highlights the extent to which car dependency is embedded within UK culture. City authorities are complicit in facilitating this dependency, for example through the disproportionate allocation and pricing of road space in favour of private cars over other modes. Cities should aspire to break this cycle of dependence and showcase alternative visions for how space could be used.

Recommendation 01

City authorities should reduce highway space for private vehicles and actively reclaim this space for alternative uses. Highway space should be reallocated for walking, wheeling and cycling, bus lanes and the public realm for people to enjoy – more space for an improved place. It should also accommodate parking for sustainable modes, for example private cycle storage, shared e-cycle, and e-scooter bays. Parklets and other reuses should also be prioritised.

Finding 02

The inconsistent physical and digital integration of sustainable transport results in poor value for money for current and potential users. As it stands, public transport and even cycling may not provide adequate travel options for those living in areas of poor connectivity, or with unusual or irregular work or social patterns.

Recommendation 02

Where possible, city and regional authorities should physically and digitally integrate and densify sustainable transport networks. This includes providing more mobility options for trips, such as public transport, e-bikes, e-scooters, and protected walking and cycling

infrastructure. Electric car clubs and park-and-ride schemes could be used to support these measures.

Theme Two: City Governance

Finding 03

Public awareness and support for car free measures is essential and would be aided by establishing a baseline of knowledge among all stakeholders. Currently, consultation processes are too fragmented, too exclusive, and do not provide enough opportunities or incentive for stakeholders to meaningfully engage with issues.

Recommendation 03

Consultation and engagement processes should aspire to build consensus for car free change among participants by actively informing and educating, through greater engagement, being more transparent, and more inclusive. People need to be offered multiple points of entry to the process and feel that their opinions and time are valued. Where possible, remuneration (as opposed to compensation) should be offered.

Finding 04

City authorities may typically resist setting shorter-term targets and agreed deliverables for policies and programmes. This reluctance may stem from variable resourcing (including time and funding), the fear of failure, or the risk of losing political support/consensus.

Recommendation 04

City authorities need to set shorter-term targets and agreed deliverables (e.g. the annual number of cycle hangars to be constructed, or the proportion of modal shift to be achieved). Doing so may lead to multiple benefits, including helping to accelerate progress, establishing credibility with stakeholders, raising greater awareness via delivery of infrastructure, and the increased likelihood of additional funding (owing to proof of concept). A failure to meet stated outcomes should not deter authorities who should be transparent

about difficulties faced and willing to adapt as necessary.

Theme Three: City Identity

Finding 05

Transitioning towards a car free future should serve to both recognise and enhance the existing identities of cities.

Recommendation 05

City stakeholders should consider how a car free future can help people reinterpret a sense of place. Visionary storytelling linked to programmes such as citizen panels and interactive engagement could help stakeholders to make explicit links between their city's past and its future. Placing an emphasis on the 'how' as much as the 'what' may enable cities to better draw upon their historic trajectories to consider how understanding past development patterns and power dynamics may help them achieve their respective ambitions and create the necessary conditions for future change.

Finding 06

City authorities must work harder to empower, include and motivate marginalised people to take an active part in their city's future. Ensuring people have a sense of having a stake in their cities should be a key feature in employment and engagement with city authorities.

Recommendation 06

City authorities should establish apprenticeship and employment programmes with a car free focus, aimed at marginalised groups. Explicit links should be made between the economic, environmental and equity benefits of going car free and the existing and new industries and jobs that it could help foster. This could include jobs in sectors such as sustainable transport, land use reallocation, and digital research and marketing.

Research Methodology

The two phases of the research both employ a qualitative methodology.

Phase one (literature review)

- Draws upon a mix of primary interviewee and secondary desk-based research. Fare City spoke to Possible campaigners in each of the four selected cities which helped inform topics to research as part of Fare City's rapid literature review.

Phase two (expert interviews)

- Draws upon primary research conducted via video call. Possible campaigners interviewed 28 experts across the four cities (seven per city) between 12/09/22 and 30/09/22.

- Possible sourced all interviewees who comprised a range of politicians, practitioners, campaigners, and academics.

- Possible arranged all necessary permissions directly with interviewees.

- Interview schedules were prepared by Fare City and were structured using three sections, each with one of the following themes identified from the literature review: city infrastructure, city governance, and city identity. Each section contained three questions with prompts to be used at the discretion of the interviewer. Each schedule was designed to facilitate a semi-structured qualitative interview.

- Interview questions were a blend of generalised and specific questions tailored to the profile of the interviewees in each of the four cities.

- Possible made an audio recording of each interview and outsourced the transcriptions before issuing them to Fare City.

- Fare City analysed each interview transcript, identifying commonalities and differences and writing up key findings and recommendations which can be found in this project report.

The use of qualitative interviews is designed to provide the research team with a greater level of understanding of the key themes identified via the literature review. The overall aim is to obtain a wide-ranging set of insights which will enable the research team to propose recommendations with a view to answering the project research question and informing the city-specific project workshops.

Theme One: City Infrastructures – public realm, connectivity, and accessibility

1. Space

Navigating space

An enhanced understanding of how urban public space is navigated, controlled, and appropriated is a key sub-theme identified by interviewees. London campaigner Isabelle Clement relayed that "...we need places where you can be rather than move through". Leeds academic Karen Horwood agreed and cited how the 'activation' of spaces where there are opportunities for experiences, interactions, connection and interest at the street level may help to ensure this. Birmingham politician Liz Clements considers that proximity is also important in improving usability: "...we want places that people are near and they want to go to rather than pass through."

Leeds practitioner Kit Allwinter considers that a car free public realm hierarchy may be 'flatter' and 'more intuitive'. However, he acknowledges that this may reduce accessibility, a point raised by Isabelle Clement, who favours retaining the physical hierarchy of the public realm and simply claiming more of the existing road space for those walking and wheeling. Many interviewees, including Bristol politician David Wilcox, consider that shared space for different modes is to be avoided: "...shared spaces should not be deployed in any city these days", while London practitioner Dinah Bornat considers shared space to be inequitable for the needs of children: "...children can't share surfaces with vehicles. Forget it. [Laughs] They can't. Vehicles don't share them with children."

Many interviewees, including London politician Sian Berry and Leeds campaigner Martin Hamilton, consider that the recent changes to the Highway Code to assert the use hierarchy of road space will be critical in enhancing and reinforcing street infrastructure changes to modify the behaviour of motorists. While Bristol academic Jonathan Flower suggests that doing so would additionally help businesses 'thrive', he states that the "...rhetoric is a long way from the reality." Dinah Bornat relayed that cities are designed for economic activity and growth and for moving people 'through the system', a system that children and other marginalised groups are largely excluded from.

Control of space

Several interviewees, including Karen Horwood, suggest that the public realm is aggressively commodified by private entities, such as delivery and waste management contractors, while Dinah Bornat cites the politicisation of space: "...also a kind of political background to this, which isn't just about car ownership; it's about how we share space, and not wanting to share space." Interviewees generally agree that both the commodification and the politicisation of space compound existing exclusionary practices; as identified by London academic Tim Gill, "[we]...actively expel teenagers from public space." This is a type of 'othering' that Sian Berry considers leads to teenagers not feeling welcomed in public spaces, resulting in "...very few spaces where young people can congregate."

Interviewees including Leeds academic Paul Chatterton advocate for a publicly owned public realm that "...doesn't creep into quasi-corporate ownership", while Bristol campaigner Emma Geen considers that greater levels of community ownership would lead to "...a lot more of a sense of community". Perhaps the most clear example of the privatisation of public space is on-street car parking. To address this, London practitioner Ralph Smyth considers that cities should be "...reducing the amount of parking and pricing it appropriately", while pavement parking enables the private to further encroach upon the public, an issue which Bristol

practitioner Zoe Banks-Gross considers to further "...deter a lot of people from walking and cycling".

Reclamation and activation of space

The need to proactively take space away from cars to facilitate the transition towards car free cities is considered essential by many respondents. Sian Berry proposes making "...sure that we've got the absolute minimum of space for them [cars]", while London practitioner Matthew Clarke considers that London boroughs need a 'long-term programme' to remove 'x proportion of spaces' over the next decade. This view is supported by Leeds campaigner Ruth Gelletlie and Paul Chatterton, the latter of whom proposes 'shrinking' the highways network "...five per cent a year".

Of equal significance to taking space away from cars is the reclaiming of this space, as suggested by Ralph Smyth as a means of "...lock[ing] in change". Smyth envisages that junctions could be turned into "...city rooms...places where you can perhaps sit out", while Leeds politician Neil Walshaw considers that junctions can become "...important connector links work[ing] for all modes". Supporting Walshaw's aim of "...changing the public realm to lots more bus highway space" is Birmingham politician Waseem Zaffar, who suggests "...reallocating more road space toward buses and introducing more bus lanes". Other interviewees, such as Kit Allwinter, propose repurposing space for other sustainable modes such as cycling: "...you need to create that space, and then you activate that space."

Inclusive space

Ralph Smyth considers that diversifying the use of public space is important in making it more inclusive by simultaneously creating a "...much more vibrant public realm", while catering to the needs of marginalised groups such as autistic city users who may need some "...quieter space". Dinah Bornat argues that a "...gaping lack of knowledge about how teenagers use a dense city" exists, while Tim Gill believes that playgrounds are "...failed models for making cities work better for children". This is a theme picked up on by Karen

Horwood, who advocates a mix of "...both formalised places for children to play, but also the interesting public realm that isn't formalised play".

Helping marginalised groups such as children to better adapt to informal city spaces would be aided by the creation of multigenerational spaces, as relayed by Sian Berry: "...we've got to make sure that every street has space for young people, people of all ages, older people to sit down". Bristol campaigner and practitioner Alice Ferguson observes that "...the use of space is probably a more important factor than the actual physical design of space", a point supported by Emma Geen concerning disabled city users: "...cafes putting their chairs and tables out onto the pavement, and then Vois using the pavement". Ultimately, an inclusive public realm, as relayed by Birmingham campaigner John Munro, is "...one in which structures of power, namely racism, class difference, patriarchy, [and] homophobia are dismantled".

2. Liveability

Safety and wellbeing

Aside from the design of a city's public realm, sufficient maintenance and considerate operation are important in improving its safety. In London, Isabelle Clement considers that paving stones, tree roots, bins and e-cycles all pose challenges to users of streets, while in Bristol Alice Ferguson regards physical safety as the number one priority. She suggests reducing traffic speed "...below 15 miles an hour, maybe even 10 miles an hour on a lot of residential streets" as the single best policy measure to improve this. In Leeds, the new Vision Zero policy is cited by Paul Chatterton as important but "...a bit toothless" in combating a "culture of speed...[that's]... normalised across the nation".

Most interviewees, including David Wilcox, reasoned that fewer cars in cities would make them quieter and less stressful: "...It wouldn't have revving motor vehicles everywhere", allowing users to "...hear birdsong", and, according to Martin Hamilton, "...notice and observe

nature". Fewer cars would also make cities less stressful for users, as relayed by Kit Allwinter: "...in cities and towns, and even villages now, [there] is actually really quite an ongoing mental load." Waseem Zaffar considers that "...a less car-dominated Birmingham is a healthier Birmingham, is a Birmingham which is free of diabetes, particularly type two diabetes".

Birmingham campaigner Laura Creaven believes a car free city would reduce loneliness as, unlike buses, private vehicles are not social spaces. Sian Berry supports this idea, believing that the pace of urban life would slow: "...that is the difference that you see when you're going through some of these more traffic-calmed areas: people using the road as pedestrians, as people stop to chat". Bristol academic and practitioner Anna Collingridge suggests that greener cities would further facilitate social engagement and enhance "...places where people can sit and chat and feel comfortable as well".

3. Sustainable transport

Physical and digital integration

The need to transformatively improve the provision, reliability, and accessibility of sustainable transport infrastructure in cities was recognised by most interviewees. Better intracity integration was cited by Isabelle Clement as critical in connecting London's iconic space: "...there are lots of iconic places and it's lovely if they are iconic and accessible but how do you get to them and who gets to them", whereas for Paul Chatterton, it is the lack of intercity integration between infrastructures that is adversely impacting local people: "...it's the kind of connecting bits at both ends. That's what's stopping people. You can't jump off a heavy rail at Bradford and jump on a quick tram".

In Leeds, aside from rail improvements, e-bikes and cycling infrastructure were suggested by several respondents, including Ruth Gelletlie, for improving both intracity and intercity connectivity: "...e-bikes could change the distance that people might be willing to

travel on a bike…this is across Leeds district altogether." To this end, Kit Allwinter proffered that Leeds may "…end up hopefully with an e-bike share programme in the next couple of years, which I think will do like Santander Bikes have in London and like the Bee Network bikes seem to be doing in Manchester".

Digital ticketing is seen as a key next step for interviewees from all cities outside the capital. In Bristol, Amanda Edmondson's work with mobility hubs is designed to encourage multimodality, something she considers would be better supported via digital integration: "…in the longer term, through price integration people will just pay once because I think the price penalty is a big reason for why people don't like to make multimodal journeys". This view is supported by Claire Spencer in Birmingham, who makes the case for convenience and cost: "…we are moving towards a situation where both the Swift system and your own cards can be used for that more integrated experience…it's not only a financial barrier, but even for those who can afford it, it is just a barrier because it feels bitty and it feels irritating".

Densification of transport options

Several interviewees considered that improved integration is assisted by denser and more extensive transport networks, namely enabling users to complete the same trips via the use of multiple options. In Leeds, Paul Chatterton spoke about parity of sustainable choices: "…So it can be the bus, bike, walk…so you make equivalent choices that one's just as good as the other, and you can flick between them." Here, Kit Allwinter considers that cycling could play a key role in supporting public transport services, especially for key workers working unsociable hours: "…and that's going to be really hard to service by public transport because of shift times, because of all that kind of stuff. So having alternatives for outside public transport works".

More acutely, a lack of connectivity is commonly felt in less affluent areas. In Bristol, Anna Collingridge relays, "… public transport…needs to be accessible across all the

areas, so it needs to go into those poorer areas", whereas, in Birmingham, campaigner Naomi Fisher considers that people on "...some of the poorest estates in Birmingham...spend a disproportionate amount of their money on having a car" because they're "...not very well connected by public transport". However, Fisher does consider that other sustainable modes may provide good alternatives: "...scooters, or bikes for the first mile... from your front door forms of transport, and I think the other big thing for me...it's that integration thing".

Access and autonomy

Access to sustainable transport, whether physical, economic, or social, is fundamental to providing a level of autonomy more typically associated with private car use. Curtailed physical access to sustainable modes includes both cycle network connectivity and storage, as reported by Naomi Fisher: "...somewhere to park your bike because...where there's loads of terraced houses, it's a massive barrier." New modes such as e-scooters are recognised as being both convenient and cost-effective and are considered by Kit Allwinter as a "...useful way of bringing people into that alternative mobility space", while Sian Berry suggests that "...e-scooters might be filling a gap that means more people can give up the car".

Importantly, the autonomy that new modes such as e-scooters and e-bikes deliver appeals to different types of users, from older people who may consider them genuine alternatives to their cars, to younger people who may opt to choose them instead of learning to drive and buying a car. Cost is unquestionably a barrier to the uptake of sustainable modes, not only for newer modes typically considered more expensive at the point of purchase but also for more traditional modes, including public transport such as the bus.

In Birmingham, Waseem Zaffar, brands it a 'scandal' that "...young people are currently not able to access public transport in a way that's cheap enough for them to travel", whereas Liz Clements opines that "...in

Birmingham, I don't even think it's the cost of fares that is the main barrier; it's the slowness." This suggests that for some, the perceived lack of value of travel, as opposed to the cost, is most prohibitive, especially as walking can be "...quicker than getting on a bus." Poor value for money of public transport, tied to low reliability and high cost, was inferred in several interviews. Some interviewees considered that challenges upstream of the service itself were to blame, such as ineffective land use planning, a lack of capital investment, and the inability to franchise services.

Access to sustainable transport is closely aligned with cost; however, broader issues such as design, lack of information and lack of assistance can further adversely impact certain groups, including some disabled people and children. Dinah Bornat suggests that this ties back to the 'economic activity and growth' agenda of cities, which marginalises children, who do not make economic trips, as opposed to adults, who do. To address this, Bornat recommends "...a kids' day on the Tube and the buses...today's the day you get to explore your city, learn how to use the transport system". She believes that this would not only help young people to navigate the system, providing them with a level of autonomy, but it would also get adults to think about how to behave towards them.

Aspiration and opportunity

Autonomy is closely bound to aspiration and opportunity, a perception that encourages many city users to choose private cars over other modes of transport. In Birmingham, Deborah Broomfield states that cars are seen as status symbols, especially among marginalised communities: "...So in certain marginalised communities, if you've got a car...it's a symbol that you've made it, as opposed to using public transport." Liz Clements acknowledges this but suggests that "...if we can try and reverse that mindset with children in schools and younger people, I think that would be a real catalyst for mode shift".

Liz Clement observes that her childhood recollection that driving "…was seen as a form of freedom; the possibility of moving around and not being dependent on being given lifts or using the bus" may still resonate with many young people today, and the importance of working to reverse this mindset. Dinah Bornat considers that as well as young people today seeing the car and car ownership as aspirational, we should also understand the behavioural patterns and needs of children and teenagers that may link to aspirations for more sustainable forms of transport. For example, with children and teenagers preferring to socialise among peers when travelling: "…they want to chat, they want to walk to school, they probably want to catch the bus; those are all quite sociable activities".

While Bornat considers walking and catching public transport to be sociable, she does not consider cycling to be a sociable activity and goes further to suggest that "cycling is not aspirational", a view shared by several interviewees including Kit Allwinter: "…It's not aspirational, and so it's a hard sell." Although Allwinter does believe that cycling can be made more aspirational, he concedes that the chances of improving its image fare badly against the sustained levels of resources invested in advertising private cars: "…we really need national leadership rather than local or regional. I think we can put our own spin on it".

Many younger people associate aspiration with work and leisure opportunities. In London, Transport for London's (TfL's) recent long-term government settlement appears to have ensured those under 18 in the capital will continue to travel for free; however, this is not the case in other UK cities. In Bristol, Alice Ferguson has "…been involved in calling for…free bus travel for children across the city as a way to address that inequality." In Birmingham, one of Europe's youngest cities, the ability of young people to access labour markets is a concern for council cabinet member Liz Clements, while Laura Creaven asks: "…how do we

expect those young people to have the skills so that they can become employable?"

4. Modal shift

Shared car use

While transitioning to car free cities aims to reduce reliance on private cars, interviewees acknowledged that cars would still have a role to play in their respective cities. The preferred way of facilitating this would be via car club schemes, a service that London practitioner Silviya Barrett suggests would disincentivise people from owning a car: "...you're being pushed into buying a car just because a car club is not there." Kit Allwinter considers that car membership, as opposed to car ownership, would help people to stop seeing the car as "...being the default", while Neil Walshaw suggests that an electric car club would be a suitable option for those in Leeds.

Jonathan Flower believes that the development of autonomous vehicles may lead to a rise in car dependency, especially if the private ownership market takes hold: "...more car journeys as we have these little vehicles running around empty, particularly if they were privately owned". However, Flower considers that "...autonomous shared vehicles could be another form of public transport, which might be part of the solution to the shared journeys." Despite this possibility, Flower states that he thinks the rush towards automation has "...dropped off a bit" despite being "perfectly possible...and here".

Regulation

A disruptive urban mobility movement has emerged in the last decade, especially in London. This has included new and developing technologies, typically backed by venture capitalists. Silviya Barrett is in favour of some forms: "...I think for passengers the journeys are more discretionary...so providing those alternatives, I think it's a good thing". Matthew Clarke agrees, stating that although disruptive mobility is viewed as a recent

phenomenon, London's transport network has been historically driven by private sector innovation and investment "...What we saw in all those cases is that fast development and change was led by the private sector, and it was messy, and there were lots of firms that were competing against each other".

However, both Barrett and Clarke agree that some regulation is required, with Clarke stating that the rapid development of technology is moving so quickly that "...we haven't caught up in terms of regulation." Others, such as Ralph Smyth, suggest that the current state of flux, aided by the differing regulations in different London boroughs, may work to benefit sustainable modes, especially for the delivery of freight: "...So by putting in access restrictions, you can instantly make freight cycles have a comparative advantage over using vans." Jonathan Flower muses that "...he wouldn't want the low tech... to be missed from the technology discussions... like developing the technology of a cycle of various forms of cargo bikes".

The operation and regulation of freight, including consumer goods, is a huge sector that will need to be addressed by any city aiming to transition to becoming car free. Silviya Barrett believes consumers must be incentivised to travel and collect by sustainable means, via the 'active last mile'. Or alternatively, delivery charges could be levied directly onto them: "...then people would realise there's no such thing as a free delivery, delivery does cost you money". Sian Berry agrees but thinks that the onus should be on delivery companies to set up more collection points: "...encourage them to be more organised, but there just aren't enough of these things that need a bit more infrastructure on the ground".

Adverse modal shift

While the proliferation of new, sustainable modes of transport is providing city users with more alternatives, in some instances, sustainable modes are simply being switched out for others, as opposed to working to reduce car use. Amanda Edmondson relays that: "...from all the

other countries and stuff who have introduced e-scooters, it's normally like one in six e-scooter trips replaces the car journey… and then the others are probably taking away from walking and cycling". Similarly, Laura Creaven suggests that free public transport may "…tend to just discourage people from walking", which, for shorter trips, may not only encourage more sedentary lifestyles but also effectively take that space away from others who need it more, especially on busier routes.

5. Traffic reduction

Work and leisure patterns

While modal shift is critical not only for individual cities but also for the UK to meet ambitious net-zero targets, it is not considered to be enough on its own. Several interviewees suggested that collectively people simply need to travel less, which crucially extends to their consumer habits. Matthew Clarke suggests that the advent of disruptive mobility in the form of internet shopping and same-day home delivery is creating huge numbers of additional journeys, while Silviya Barrett suggests that people should be more strategic and order things "…at the end of the week and order them in one go, as opposed to ordering one thing today, another thing in a couple of days".

Paradoxically, Ralph Smyth suggests that a rejection of the 'fast fashion model' of "…just-in-time one-hour freight" and a move towards a more socially conscious 'circular economy' model may present a different set of challenges: "…because a circular economy has a lot more complex freight movements than what we have at the moment because you need to send something off to a home or a factory and then bring back things to different places to collect and recycle into new raw materials".

A change in work patterns has been accelerated by the pandemic, with more hybrid work available to traditionally office-based workers. Neil Walshaw cites Leeds City Council's decision to bet big on digital as

paying dividends when the pandemic struck, allowing "...6,800 staff to work from home with barely a problem". However, he thinks that the future of office jobs may be in 'virtual meeting places', leading him to question the future of city centres. Sian Berry considers that cities will still need workers and believes that the traffic this generates should be reduced at source: "...let's reduce the number of lanes there are coming into London, like a valve." She believes that this would effectively mitigate induced demand, with commuters utilising park-and-ride instead: "...we don't have any park-and-rides in London, and we should."

In addition to travelling less, several interviewees, such as Ralph Smyth, advocate that people need to travel shorter distances: "...if you are going to get many more people cycling and walking, then you also need to get a trip length reduction, the idea of a 15- or 20-minute city". Ruth Gelletlie supports the 15-minute neighbourhood concept: "...I believe that we really need to be moving towards a lifestyle where people don't need to travel hugely, where people can access most of what they need locally." Regardless of how work and leisure ultimately prevail in the coming years, it is clear that sustainable, reliable and affordable transport options will need to be increased and maintained to provide equitable access for all.

Theme Two: City governance – decision making, local needs, and inclusivity

1. Awareness and education

Gaining public buy-in

Many interviewees consider establishing wide-ranging public support for transitioning towards car free cities to be essential. Isabelle Clement stresses the need to "...take the public with us and educate the public because otherwise, it's going to be good words and potentially some initiatives". Laura Creaven states that it is about messaging: "...that messaging being tailored to different groups in order to then get them to proactively engage with it or encourage it". Others, including Silviya Barrett, relayed it was as much about context and how the message is framed as it is about the content: "...one thing that can be used in terms of campaigning is cost of living, cost of fuel, and making sure that public transport is more attractive".

Ruth Gelletlie suggests that practitioners and campaigners can best assist politicians by "...support in terms of when policies are being put forward. We can support them in the media and social media." Kit Allwinter muses that despite long-term efforts, "...we have never really worked out how to make that message resound and work with things." Creaven, however, thinks that councils should be doing more: "...I think sometimes they [the council] engage in a way that makes life easier for them, and to me, that's not how you engage with people".

While messaging is important, others such as Paul Chatterton state that "...there's that foundational work to be done, it's getting everyone to a baseline of understanding." Anna Collingridge agrees, suggesting that given the 'different spectrums' of society, there

"…needs to be other education elements going on… whether that be educating about the benefits for an individual, you can have some sort of tool which meant people could calculate money savings". Dinah Bornat considers it essential that education starts earlier, with children, as "…articulate, soon-to-be voters".

Aside from educating the public, several interviewees consider the politicians themselves to be in need of education. Paul Chatterton considers that the "…level of – the knowledge base within the elected representatives is very low", which curtails a politician's ability to present policy decisions to the public. Rachael Unsworth agrees, stating that "…training the local councillors, I think, is a key thing…we need to be able to give them the tools and the confidence to be able to propose ideas coming down from higher levels". In addition to councillors, Anna Collingridge suggests that businesses as an "…overarching lever… can really have a big impact on educating their staff".

2. Diversity and disruption

Representation

Isabelle Clement considers that diverse voices need to play a more prominent role in helping to effect change and that on a more strategic level: "…it's the responsibility of employers in this field to ensure that they recruit a diverse workforce." Tim Gill agrees that more diverse voices would lead to "…a richer set of conversations, and just a visible diversity as well". He additionally suggests that a successful social change movement affords different points of entry for different individuals and groups.

Disruptive thinking

Paul Chatterton argues that Leeds City Council may benefit from major restructuring and the renaming of departments: "…I would just clear out the top team." He suggests renaming the Highways Department to the 'Department of Urban Mobility' to ensure clarity of purpose, with dedicated "bus and active travel tsars".

Rachael Unsworth similarly suggests a "regime change… both from within the system and for the people using the system" regarding implementing policy change. Others suggest that disruption could be beneficial, including Deborah Broomfield in Birmingham: "…it needs some disruption for the system to function, and new ways of thinking, often fresh blood, intergenerational contributions".

Birmingham politician Liz Clements states "…we don't need to spend any time inventing new governance structures; we need to use the ones we've got." She further suggests that debates about governance, no matter how small, just "…postpone the time you actually do something". In Leeds, politician Neil Walshaw comments that policy and personnel are where they need to be and that "…idealism is…gathering apace. That's coming from a generational change between elected members and of officers".

In contrast to the other interviewees, Ralph Smyth believes that it is civic organisations, not elected politicians, that need to be more disruptive: "…a lot of the NGOs can be quite regimented in their thinking and lack cognitive diversity…and aren't really thinking of new ideas but are doubling down on long established views." Smyth also identifies how siloed many organisations are, chiming with the views of both Laura Creaven and Kit Allwinter. Allwinter considers that it is not only organisations, but whole sectors, that are stuck in their approach: "…In this country…we have not been great at getting transport planning and spatial planning to talk to each other. They tend to exist in their own silos."

3. Partnerships and consensus building

Communication and collaboration

The interviewees accepted that to effect change, there needs to be a working dialogue between elected officials and civic organisations. Silviya Barrett considers a key strength of civic organisations towards the development and implementation of policy to be that "…NGOs like us can help convey the same message to

residents in a non-party political way." Barrett additionally believes that another strength of non-governmental organisations (NGOs) lies in their ability to liaise both ways, down from politicians to the public, and vice versa. Sian Berry recognises that this not only enables politicians to advocate and build support for their policies but, in turn, puts pressure on politicians to deliver on pledges, something that she feels has been crucial in realising safer cycling in London.

Paul Chatterton states that NGOs can act as 'transition partners' for councils, a view supported by David Wilcox: "...They need to be working with the council as both a critical friend, but also as a way of actually prompting them to go off and do stuff". Anna Collingridge believes that community-focused organisations are effective at "...getting different opinions, understanding the different issues" and relaying a clearer message of what the public wants from their politicians. Amanda Edmondson considers civic groups to be good at "...putting the new ideas forward and raising a profile of these alternative ways", but, on their own, they are not the right platform to effect change.

Consultation, co-design and co-production

Consultation, a formal mechanism for communicating ideas between all groups within the ecology of urban decision making, is viewed differently among interviewees. Some, such as Waseem Zaffar, consider early, extensive, and inclusive consultation to be the best means for achieving desired outcomes: "... engagement should start right at the beginning, and if you do your engagement properly, you're actually co-designing and co-producing with the people that you're trying to make a difference to."

Isabelle Clement advocates co-designing, an enhanced form of consultation which can empower participants to effect tangible change in the decision-making process: "...we have to include a lot more information sharing...and education to people about what they are being consulted about and, even more so if they are being asked to co-design." Neil Walshaw considers

consultation educative for all parties: "...a lot of listening on our part; a lot of education" and part of a council's 'soft power' repertoire.

Other interviewees, such as Paul Chatterton, advocate for less consultation: "...I'd rather just a bunch of really clued-up technocrats just get on with it, who know what they are doing". Chatterton claims that members of the public are rarely able to comprehend all that a scheme entails and would encourage decision makers to 'hold their nerve' as "...you're never going to make everyone happy". Claire Spencer opines that inclusion in consultation is expensive, not as expensive as not doing it, but "...you do have to slow down".

Sian Berry advances the idea of 'consensus building' as part of a longer-term model designed to consult and develop solutions: "...making sure that there's consensus building and vision work done at a local level ahead of time". Although engagement with a neighbourhood forum is clearly not a catch-all for every type of project, especially those with very specific processes and protocols, it does suggest that trying to galvanise local communities more holistically could, at least initially, be a good place from which to consult on local issues.

Resources and remuneration

Potential difficulties with consultation, especially longer-term models such as neighbourhood forums, may reside in an overconcentration of power from long-standing members, as well as NIMBYism, which can lead to a lack of innovation. Jonathan Flower relays that community leadership varies considerably as some more affluent areas may have "...some retired people that have time on their hands, have a lot of skills and again they get things done for their area. You get other places that get totally neglected because they don't have that."

Rachael Unsworth favours citizen panels as another type of consultation. These consist of a forum where a diverse group of city residents are assisted by several experts who "...help facilitate discussions about how the stories

of our past and present can be reimagined and reorientated to create different ongoing stories". Though she considers them to be effective, she concedes that it does require time, space, and dedication: "...It takes resources of various kinds – premises, of people, of catering, and people need to be able to take the time out of busy lives to be able to do it."

Kit Allwinter muses that consultations are often compromised owing to a lack of resources, including money, to facilitate an 'ongoing conversation'. He additionally considers that the comparatively small number of participants relevant to the scheme's stakeholder group can make advancing a position problematic. Alice Ferguson states that councils need to stop treating communities as a resource to "...somehow do the job...that the council should be doing", a view echoed by Laura Creaven: "...I think there's only so much time that volunteers have for that kind of thing."

Sian Berry believes that remunerating the public for their time and knowledge is crucial. This is to not only leverage the maximum amount of value from sessions but to acknowledge the commitment of participants who take time from typically busy lives: "...people don't realise the extent to which people work in the day and in the evening... giving people compensation to do stuff is really important." Although funding for such initiatives is likely to be less available outside of the capital, the principle is one that other councils could aspire to.

4. Responsibility and accountability

Vision and conviction

Although stakeholder engagement, via consultation or otherwise, is critical to envisioning how a car free city may look, it is essentially the responsibility of decision makers to push through the measures that will deliver it. Ruth Gelletlie states that politicians must have a long-term vision and must be willing to stand up to external forces: "...be bold and say, 'this is the city we're aiming for, and this is the city we're going to have.'"

Waseem Zaffar, the leading political figure in the delivery of Birmingham's Clean Air Zone (CAZ), relayed some of the personal and professional challenges that politicians may face in pushing through change: "...Building on what I said; you've got to engage, you've got to consult...but you've got to lead by example...you've also got to be prepared to make tough decisions that are, at times, unpopular". Liz Clements, who recently replaced Zaffar as cabinet member for transport, said that it was up to politicians to "...role model the behaviour they want others to adopt".

Tim Gill suggests that decisions taken to make London less car-dominated are "...actually ethical choices, they're moral choices, they're political choices", choices that undoubtedly apply to all cities that are attempting to introduce transformative change. The reality of conceiving, developing, and delivering a policy agenda is fraught with challenges, some within and some outside of a decision maker's control. Silviya Barrett cites political expediency: "...boroughs know what to do...but it's a vote loser", whereas Martin Hamilton identifies representation and "competing priorities" as stymying political progress.

Aside from contending with party politics, decision makers must also negotiate the political system, as relayed by Waseem Zaffar: "...we probably get a little bit confused in understanding who's leading on what and some of the grey areas." For those outside the political sphere, multiple layers of governance can also be disorientating, as confirmed by Zoe Banks Gross: "...I think that because we have multiple levels of elected governance, it hasn't always been clear who needs to be lobbied to make those changes."

Several interviewees suggested that aside from elected politicians, it is the responsibility of supporting parties to do all within their remit to try and help effect change. Tim Gill states that the practitioner can try to "...lift, move away from highly combative, personalised, and emotive debate, and actually pull back to building consensus".

Gill considers it the responsibility of practitioners and academics to provide the tools, arguments, and ideas for campaigners to make changes before concluding that "...I want us to never forget that actually we're not the ones who hold the big levers of power in all of this. Those levers of power are held by political leaders."

Leveraging existing powers

Several interviewees suggested that policy makers do not always make full use of their powers, for reasons which may be political or even practical, such as unfamiliarity with the ones they hold. In London, Ralph Smyth states that the mayor possesses powers that he could use to seemingly advance aspects of the city's sustainable policy agenda, but he either does not or will not: "...the mayor has had this power since 1999... it's already there. It's just that no one is campaigning for these powers in the GLA Act 1999 to be used." Sian Berry agrees that the mayor has certain powers but has resisted using them: "...we've asked the mayor to use the power that he does have, which is to take extra roads into [the] Transport for London route [TfL] network".

Many elected officials who possess such powers are hesitant to do so. The fine balance of power that exists, or politicians perceive to exist, is carefully marshalled for fear of expending too much 'political capital' on issues that may adversely impact the delivery of their more ambitious programmes. Sian Berry recognises that this may be a reason preventing the mayor from bringing a key road within TfL's remit: "...the mayor's reluctant to use the powers because they are quite drastic and they would be a declaration of war a little bit."

Silviya Barrett considers that it is the London boroughs that possess a great deal of untapped power, as they are collectively responsible for 95% of the city's roads and can determine how road space is both used and charged for, being independent of either the mayor or central government. Barrett relays that: "...parking and road space allocation, car club availability, e-scooter availability, all these are borough decisions". She cites that the "...fear of electoral backlash" from being seen to

be 'anti-car' is a key reason for some boroughs' unambitious or non-existent car reduction policies.

5. Targets and funding

Consolidating policies and targets

The complex, interdependent governance structures of cities are subject to a range of pressures. These are not always conducive to cities setting a clear narrative or implementing complementary policies by which to achieve it. An example is London, where several interviewees noted a distinct 'disconnect' between the policies of the boroughs and the mayor, and, more pertinently, between the policies of neighbouring boroughs, many of which are controlled by the same political party. Interviewees additionally felt that given overarching environmental targets set by the mayor and matched by many individual boroughs, namely the 2030 net zero target, all parties should be working more collaboratively.

Regulation is a policy area in which differing standards apply across different London boroughs. Isabelle Clement questioned why a more standardised approach could not be adopted: "...Every borough has got a different set of rules...and what sense is there in that?...I think it's really tricky to have a transport policy and transport rules which are so different in different boroughs and it's all nonsense to my thinking." Sian Berry agrees that there needs to be a consistent approach to regulation from London boroughs: "...we had in people from the different companies talking about the difficulty they've had in getting a consistent approach from the boroughs... I think we need more of a planned approach at a London level."

The introduction of shorter-term targets with agreed deliverables, is considered by interviewees, including Ralph Smyth, to be critical in keeping different levels of governance on track for hitting their overarching targets: "...at the moment, there is simply a target for 85% of trips to be by sustainable means by 2041. We need the MTS [Mayors Transport Strategy] amended to

include new targets for 2030." Smyth additionally considers that setting and realising targets not only makes progress more likely to be realised but, importantly, enables boroughs and the mayor to unlock more funding to justify initiatives "…because the funding picture now is so different to where we were in 2018".

The need to bind policies to tangible targets was also highlighted by other interviewees. In Leeds, Martin Hamilton cites the differing bus targets of the regional and local authorities: "…it would be great if politicians from across the region could have one target around bus patronage that they could all sign up to." Similarly, Anna Collingridge queries why policies do not have timelines for implementation and review, suggesting an annual review to check the progress of the biggest policies: "…we do these big reports… and then there's no timeline of when it's going to happen, it becomes quite a vague discussion of what could be changed."

Data

Several interviewees linked policy, targets, data, and funding. The ability to collate and analyse data to show whether policies, and, by extension, authorities are performing was suggested by Sian Berry: "…I think, to show that there is, in the end, a bottom line if we're not collaborating well to achieve what are really important targets; we do need some backbone to the policy." Ruth Gelletlie advocates investing "…money in collecting robust data as a baseline, and then putting your interventions in place and measuring your outcomes robustly… to demonstrate whether what we've done has had an impact or not".

Paul Chatterton suggests a carbon audit to understand the 'carbon budget' of a piece of road infrastructure, but speculates that this would be unlikely to happen owing to "…an absence of even understanding these issues amongst the senior leadership team, unless they do know it and they're totally hiding from it". Kit Allwinter spoke of a comprehensive highways and accessibility audit to "…understand the nature of our networks", while Karen Horwood suggested the equivalent of undertaking

an equity audit: "...it takes that lens of thinking about things and how they will impact different groups differently in order for that thing to feel equitable."

Raising and redistributing funds

In the UK, there are huge funding disparities between different parts of the country, often stifling the ability of neighbouring regions and cities to develop and deliver transformational initiatives, such as sustainable transport infrastructure projects. On a more granular level, cities experience funding disparities, which can be tied to how competitive different regions are at bidding and winning funding. Matthew Clarke considers the model that invites London boroughs to bid against one another to be inequitable, serving to reward those boroughs "...who are good at bidding for these things, and the people who have understood what's required tend to get the money". He believes moving away from this system would "...support the car-free city concept to be more widely understood and accepted".

All city authorities will regularly need to raise funding independently of the regional or national government. Most authorities can do so via a combination of means, such as levies raised on developers, via either Section 106 agreements or community infrastructure levies (CILs), while authorities may also be able to raise revenue from members of the public via measures such as parking penalty charge notices (PCNs). Several interviewees, including Ralph Smyth, encourage city authorities to be bolder in unlocking additional revenue streams: "...road user charging... quickly expand the ULEZ next year... roll out a lot more low-traffic neighbourhoods, bus lanes and cycle lanes... enforcement income from drivers violating those rules...workplace parking levies, and of course by charging drivers to park their cars more fairly".

Neil Walshaw considers that a local authority's ability to retain a greater share of local business rates would work to increase its financial sovereignty. He surmises that this is directly linked to greater autonomy: "...Why is turnout in local elections 35%? Well, it's 35% because we

only have 35% of the powers we need to have." He believes that this would lead to "...more local decisions made locally, and more spending decisions made locally".

Others, such as Paul Chatterton, think that funds simply need to be redistributed more equitably by city authorities: "...That £60 million [for the Regent Street flyover] – it should have been decommissioned, that £60 million put into rerouting – and reducing – and creating alternatives." Rachael Unsworth feels that redistribution needs to happen in a more person-centric way, by subsidising younger people, as opposed to older people, to travel for free on public transport: "...I think that older people don't need a bus pass, for instance. Should be encouraged to ditch that and to be acknowledged to be putting it back in the pot, as it were, for a student to have a free bus pass, for instance."

Theme Three: City identity – place, equity, and aspiration

1. Place shaping

Enhancing the existing

Interviewees were keen to discuss their respective cities as distinct places, each with an authentic look, feel, and culture. In thinking about how London could transition into a car free city, Dinah Bornat was quick to caution against losing what makes city neighbourhoods special: "...what we don't do is value enough what it is that we've got. So we have to be really careful that we're not throwing out things that are working really well." For Leeds, Martin Hamilton believes that the real value in transitioning to car free is that "...it enhances what is already there", in effect allowing the individual to reinterpret their sense of that place, especially in relation to both the built and natural environments.

Kit Allwinter considers that "...actually, it's really not going to be about transport at all, it's going to be much more about creating really nice places in the space." Allwinter does not believe that transport will be an 'identifier' in Leeds in perhaps the way it is in other cities and proffers the view that: "...what we need to do is inject car-free living into the existing identities and use that to grow car-free living outside it." Martin Hamilton suggests that cities could be more creative in leveraging their built heritage, to not only reassert the historic validity of place but "...to enable future developments, to be [built] in the context of that particular location".

In Birmingham, Waseem Zaffar is unambiguous about the symbiosis between how a place's history can inform its future: "...so I think any place, however small or big, cannot succeed if they don't understand, appreciate and celebrate their past." Zaffar cites the city's canal network as an example of how historically functional elements of the city can be re-appropriated for the

present day to continue serving Birmingham's residents: "...The canals once were used to transport goods in and out of Birmingham, today they're not; today they're more of a leisure activity." Though Ralph Smyth also supports a city's ability to draw upon its past, he is keen to envisage the future: "...what can we do differently? How can we create the possibilities?" A key role of this future is to "...provide social infrastructure for experimentation".

2. Messaging and branding

Storytelling and narrative

Dinah Bornat says she "...love[s] stories, more than anything" and relays how they help her "...to get the feel of a place". Narrative has always played an important role in relaying the history and understanding of cities; however, for Rachael Unsworth, 'visionary storytelling' enables her to "...leapfrog over the partisan, personal stuff of the here and now" to imagine how cities may look a century from now. She considers this to be critical in helping people "...coalesce around something that's far enough out" with the aim of 'backcasting' how reaching that vision may be achieved.

Unsworth also thinks that the benefits of storytelling and narrative can be realised much more immediately, through assembling diverse groups of people via citizen panels and: "...helping other people to tell stories that then get picked up and woven into the policy process, and then into practice". Kit Allwinter considers how relatability is key to any narrative that aims to challenge people's perceptions: "...It's that thing of you have to get down to somewhere similar to them."

Birmingham's affinity with the private car is a narrative that several interviewees suggest needs to evolve. Naomi Fisher states that while "...that's the narrative...the car industry...I think we've got to see it as a bit of a historic relic". Laura Creaven adds that: "...we keep the identity as a proud, industrious, multicultural city by not ignoring what has happened... but actually saying it had its place, and now we're looking to the future." Liz Clements also acknowledges that "...the car industry has

been part of the history and is woven into the culture" but feels that "embrac[ing] the idea that you can move round the city on foot or by bike or by public transport" is where focus should be concentrated.

Innovation and intention

Innovation is commonly allied with being intentional and is something that Tim Gill considers cities can observe, learn, and adapt from others. Paul Chatterton feels that to be intentional, cities must "...set the tone", a view echoed by Rachael Unsworth, who thinks Leeds should be bolder in its messaging: "...what about 'Leeds – brilliantly green' or 'Leeds loves the planet". However, she also recognises that any type of branding, or rebranding, needs to be done responsibly in a way that is good for both "...its own people, and visitors".

Ruth Gelletlie similarly believes that Leeds needs to place its current, stated ambition of being a 'city where you don't need a car' front and centre of its offer to younger people: "Making this a key feature of life in Leeds. We're forward-looking, we realise that motor – individual motorised transport is a thing of the past. We're not going to invest in that anymore." Though Kit Allwinter does not think that 'car free living' will be enough of a narrative on its own for Leeds, he does recognise what the power of branding has done for the London Tube and Manchester Metrolink and speculates that if Leeds were to gain a mass transit system, "...you might see something similar".

In Bristol, Amanda Edmondson thinks that promoting the city as car free could be good for tourism, while David Wilcox believes that a car free future would enhance existing car free areas as opposed to becoming something by which to identify the city. Alice Ferguson is wary of branding, citing Bristol's current reputation of "...being green and forward thinking and progressive...as describing quite a narrow group". Though she considers that a section of the city does live up to this reputation, she thinks the city, and the city authorities would "...deserve the reputation that we already have a lot

more if something really transformative was done around cars".

Naomi Fisher cites Birmingham's history of innovation as evidence that the city can once again lead the way in developing new sustainable technologies: "...Now the massive innovation is in a new direction... we're at the forefront of hydrocarbons...I think it can be a new pride, a new identity." John Munro also thinks that the city should be "...bold and get way ahead of that curve...to seeing this as an opportunity". Munro makes the point that as well as fostering car culture, this "...is the place and the city that gave us bicycles".

However, there is a sense of resisting the potential pitfalls of trying a hard reset or rebrand of the city, given the very prominent role that cars continue to play in Birmingham. Whereas other cities embraced car culture, it was Birmingham that helped to create it, something that Deborah Broomfield succinctly captures: "...It is a city of the car. It has a history of car manufacture. So how does that get rebranded?"

3. Culture

Perception and labelling

Historian John Munro considers the British Empire to be a key factor in beginning to explain not just why, but the extent to which, car dependency is so far embedded within British popular culture. Munro cites 'liberal individualism' and the notion of "...the white man with property who is able to have maximum agency in the society". For Munro, the car did, and still does, represent one of the most effective, and commonly available, tools by which people can assert their authority. Waves of neoliberalism in the 1930s and 1970s first coincided with the ubiquity and then the resurgence of the car, a movement that Munro associates with an 'ultra-individualism' that many owners, especially in the UK, hold dear.

The car's original status as the preserve of affluent and progressive societies still resonates today, something

that Matthew Clarke identifies: "...I think that different communities and different people have different views on the role of the car in practical terms, and also where it sits in terms of aspiration." He, therefore, considers that one of the biggest challenges facing a transition to a car free city is "...a danger that some people just don't understand why you would want some of these ideas to be implemented".

More specifically, the car means different things to different communities and within the context of different cities. In Birmingham, Deborah Broomfield considers the role of the car to be especially pronounced: "...it stems around the car being king, and the symbolism of the car, what it represents in certain areas." For many in the city, the use of different types of transport is also "...a class thing. There's a symbolism and a class."

The labelling and stereotyping of different city users, depending on the type of transport they use, are not, however, unique to Birmingham. In London, Sian Berry "...complained in [her mayoral manifesto] about this tendency to split people up into pedestrians and cyclists and public transport users and drivers, because we're all of those things in the end".

John Munro identifies that there are those "...in our media landscape, who benefit by pushing these identities in a very strong way". Munro considers that the softening, or dropping, of personal labels could work to temper stereotypes associated with these constructed identities: "...I think that thinking about people who drive or cycle or walk or wheel, or whatever, is a useful way of rethinking these hard identities." However, Munro still advocates tackling the root cause of the problem, namely, "...the constituencies here who do exist in this public space of the roads and pavements of Birmingham and of the UK more broadly".

Normalisation

Several interviewees spoke about the need to culturally normalise how we navigate and access city spaces, which, in turn, may shift broader behaviour patterns.

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Isabelle Clement advocates everyday mobility for Londoners: "...so I think we'll have succeeded in having a car free...and equitable city, if and when we see not just tourists but Londoners at all of our iconic places." Kit Allwinter relays that: "...if we try to think that active travel is something special or it's something that is more worthy... then we're never going to get large-scale uptake". He considers that it must become intuitive and second nature for people as a way of "...enabling you to do what you want to do in your day-to-day life. It's about enabling people to drop their kids off at nursery, go to the shops, have a coffee."

Dinah Bornat considers that more high-quality public space should be available more of the time. She states that this should not only be woven into the way we currently live our lives, but in the way we aspire to live our lives: "...why do I have to have this experience occasionally? It's not special. It shouldn't be. It's just – it should be easy, though." Bornat advocates for greater proximity to high-quality space in keeping with the one-minute-city idea which looks at the space directly outside front doors, the street: "...parents and carers don't have time, don't have the one or two hours that children need to be playing in those spaces available to them to support their children to do that. So that space has to be on their doorstep."

Tim Gill also associates normalisation with how people access space, though more pertinently, how marginalised groups do so: "I think that a city or a neighbourhood where you see children of different ages with or without their parents being active and visible in the public realm is a sign of the health of that human habitat". Sian Berry cites the need to normalise the operations of gig economy workers, another marginalised group, yet key stakeholders in the move to facilitate car free cities: "...To my mind, it's really important that the unions are supported and that there is good worker legislation for people who need to work more casually...you could do more to drive up

professional standards and incentives and things, as well."

4. Unprecedented events

Unknown events

The global pandemic can be considered an ultimate example of an unknown event that fundamentally altered the rhythms of city life and effectively recalibrated critical city infrastructures. An event with the potential to transformatively change the way we understand and use city transport, the pandemic's initial impact and emerging legacy are interpreted differently by interviewees. In London, Silviya Barrett is less optimistic about a mainstream switch to sustainable transport: "...pre-pandemic I would have been more optimistic, but given how the pandemic has impacted people's perception of using public transport and shared mobility". By contrast, Matthew Clarke admits that "...I'm probably more ambitious post-pandemic, given the changes in travel and more working from home."

Other types of unknown events may include conflict, adverse weather, and recessions (even though contributory factors may be known, e.g., adverse weather and climate change). Silviya Barrett considers the predicted UK recession and current UK cost-of-living crisis to be an opportunity to make the case for people switching to sustainable transport: "...I'm hoping that the cost of living will also push people away from car ownership and car use, but how long that will last I don't know." Similarly, in Birmingham, Liz Clements suggests that the authorities are looking to offer free public transport: "...as a cost-of-living response is extending that to all young people in that 16 to 18 bracket".

Known events

Other types of unprecedented events are known events, typically events that happen once in a generation or, in the case of political election cycles, occur on a periodic basis. Known unprecedented events may include

Bradford, Leeds' neighbouring city, becoming the UK's designated City of Culture 2025. Similarly, Birmingham has recently hosted the Commonwealth Games, another once-in-a-generation event. These types of city-wide staged events are typically considered to be beneficial for host cities, as they guarantee significant investment, a level of urban and transport development, and an increased international profile.

However, though these events, once delivered, are generally considered to be successful, they do present challenges to city populations. In Birmingham, Laura Creaven questions the games' legacy: "...I haven't seen any positive improvement from that ... so I'm hesitant when we talk about the success of the Commonwealth Games and the reduction in car use." Elsewhere, Waseem Zaffar cites how marginalised groups were engaged: "...I often express concerns with the way some communities were not engaged appropriately during the Commonwealth Games." John Munro considers that the games and their long-standing association with the British Empire effectively served to reinforce the city's 'white power structure'.

Election cycles, and by extension, elections themselves, can significantly alter the characteristics of a city in a relatively short space of time. Amanda Edmondson describes how election cycles can compromise the programme of elected politicians: "...[you have] got to do it quick enough so that people can see the benefits before the elections...the trouble with infrastructure [is that] it takes too long to build". For Claire Spencer, the issue lies with election cycles taking place at different times and across different government tiers: "...so what you have is that things work to different political rhythms... who should own the political seat for when you do something that is disruptive to people's lives?"

5. City trajectories

The pace of change

Elections, and the manifestos they are contested on, can often work to unrealistically elevate the level of

expectation for an incoming administration. Achieving power is one matter, but being able to deliver programmes based on pledges is another. Ralph Smyth suggests that "...councils, but also campaigners, have very limited delivery literacy". This may extend from objectives being too broad and a limited focus on what to deliver, to an inability or inexperience on how to deliver them. However, he also considers this to be an issue for more established administrations: "...if you've got a council that's been battered by austerity for the last twelve years, how can it make a meaningful difference in the next eight years?"

The pace of change necessitated to deliver programmes can also work to short-circuit stakeholder consultation and lead to disenfranchisement among traditionally marginalised groups. Birmingham's record-breaking Commonwealth Games, delivered in four and a half years as opposed to seven, is arguably an example of this. There is also pressure on city administrations to deliver 'flagship' programmes, something Sian Berry terms "...big, iconic examples", to demonstrate the efficacy of a programme or politician. This is something that Paul Chatterton claims that Leeds has consistently failed to do: "...because it doesn't have all those other flagship bits like the mass transit or the Clean Air Zone or HS2".

Other interviewees make the case for incremental action over large-scale initiatives. In Leeds, Rachael Unsworth advocates for "...little things that help to move the system in the right direction", though she acknowledges that the lack of a mass transit system is "...the famous thing that we're not proud of". However, she considers the council to now be well placed: "...we've now got some changes ongoing, and more importantly, the will. And some of the tools are in place."

Similarly, Ruth Gelletlie considers that Leeds needs to develop incremental steps to first demonstrate proof of concept, before rolling out city-wide initiatives: "...A car-free region; that's a different matter entirely. I think you start off with your car-free neighbourhoods. If you

can get your car-free neighbourhoods and build up from them."

The role of cities

A city's ability to implement change, along with the nature of that change, is closely aligned with both a city's profile, and its unique trajectory. Some cities, such as London, are clearly global leaders with a corresponding profile, resources, and expectations. Dinah Bornat sees London as an exemplar: "...the rest of the country looks towards us", whereas Sian Berry is concerned: "...I think we're at the stage of falling behind other world cities." Others, including Matthew Clarke, feels that one of London's greatest strengths, its hyper-diversity, may make it more difficult to go car free: "I think smaller cities that may be less diverse could be easier to go car-free, because I think the population is more cohesive."

Rachael Unsworth believes that Leeds should aspire to a leadership role: "...If you're not in the lead, you're going to be left behind." Martin Hamilton also considers that Leeds should assume a leadership role in going car free, both regionally and further afield: "...it has a national profile in a way that perhaps the other cities within the region don't have... it should be taking a leadership role." Paul Chatterton contends that different cities may transition to car free for different reasons: "...Leeds will do it for particular reasons, from a point of high growth, high demand, high activity. "

Current and future opportunities

The interviewees are generally optimistic about how transitioning to a car free future could provide opportunities for their respective cities. A main driver is the development of the sustainability sector and the anticipated job creation that this may bring. In London, Sian Berry cites the pursuit of net zero: "...let's not forget that doing all this work will create lots of jobs in London, as well." In Birmingham, Waseem Zaffar considers that the new industries where Birmingham is leading, such as hydrocarbons, could enable the city to be the leader of a green revolution: "...Come and manufacture here but

give me some training centres too. Let's create some jobs, let's create some training opportunities, let's create some apprenticeships."

Deborah Broomfield is cautiously optimistic that any new jobs in Birmingham can be paired with more equitable opportunities to enable marginalised groups to participate: "...Marginalisation just doesn't mean colour; to me it means class as well. How could we entice young people to look at different careers?" In Leeds, Kit Allwinter considers that digital could have a big role to play in helping the city transition to car free, something which he feels could be led by young people who are involved in tech start-ups and "...tend to drive less". He suggests that the mayor of West Yorkshire is really keen to grow that part of Leeds' economy: "...if it turns out that being car free is an important part of that, then that's something we can feed into the support for this as a mayoral priority."

Conclusion

In beginning to answer the research question 'How can we ensure our cities look, feel and operate equitably in a post-car-dependent age?' it is useful to break the question down into its constituent parts. The first part '**How can we ensure...**' is covered at length in the report and specifically detailed in the report recommendations. As these recommendations make clear, a strategic approach which works to align a defined series of measures behind a clear objective is strongly advised. However, for some cities this approach may not be possible, or even preferable. Cities must therefore adopt whichever approach works best for their unique set of circumstances.

There is consensus among interviewees as to **how cities may look** in a post car-dependent age. Along with fewer cars and an increase in other types of transport, there would be significantly more space and more people occupying it. The space would be both greener and cleaner, while people would be more visible, especially traditionally marginalised groups including children and disabled people. Interviewees stated that these spaces would also **feel** greener, more natural and, in turn, quieter, healthier, safer, and less stressful. There would be a stronger sense of community, place, and potentially identity. There was an overriding sense that cities would feel more vibrant, more inclusive, more just, and more alive with possibility and opportunity.

Interviewees consider that post-car-dependent cities would **operate** more collaboratively and more efficiently than cities do at present. This may range from less privatisation and commodification of city space to more inclusive engagement processes and increased physical and digital integration. Such measures would also promote equitable operation, though additional measures may include greater enforcement of documents such as the Highway Code (including making the whole code legally enforceable), and

greater regulation of different types of transport and their use. Arguably, the cultural acceptance of continued car dependence can be seen as the biggest obstacle for cities realising a car free future; therefore, a key aim must be to normalise these changes as a way of facilitating greater cultural acceptance for car free cities.

Further Discussion

Potential area for further research may include:

1. What do people in cities make of car free visions and how do their views align to the research findings thus far?

2. How can UK cities learn from each other's unique journeys for reducing car dependency and, in turn, share best practice?

3. What is the potential for cities to influence national government's policies on car use?

4. How does this research and the findings from UK cities compare with the car free visions and progress of cities in other countries?

5. What is the timeline for realising car free cities, and what is determining this?