Gloucestershire COUNTY COUNCIL

# Gloucestershire's Journey to Net Zero

## Public Engagement Survey – Reducing Transport Carbon Emissions (January-February 2023)

# – Feedback Report –

# 1. Introduction

Gloucestershire County Council (GCC) and all other Gloucestershire authorities each declared a climate emergency in 2019. Following this declaration, the County Council adopted a Climate Change Strategy setting out key carbon reduction targets. GCC adopted a Climate Change Strategy setting out the following carbon reduction targets:

- The County Council's own operational emissions to be net zero by 2030;
- Emissions from all sources across the county to be net zero by 2050; and
- The county to work with partners to deliver an 80% reduction in emissions by 2030, relative to 2005.

These targets are also included in Gloucestershire's Local Transport Plan (LTP), which was adopted in March 2021 and commits GCC to setting out a strategy to decarbonise transport. GCC has started an analysis of transport related carbon emissions, and aims to publish a decarbonising transport strategy, our 'Journey to Net Zero' in the summer of 2023.

In July 2022, GCC held a Gloucestershire Decarbonising Transport Forum in partnership with UK100[1], bringing together key stakeholders and experts to share and discuss emerging work. More information on this Forum, including a summary and feedback report, can be found here: https://www.gloucestershire.gov.uk/planning-and-environment/greener-gloucestershire-climate-dashboard/transport/journey-to-net-zero/

To continue the engagement started at the forum, and to feed into our decarbonising transport strategy, GCC sought feedback through a survey to hear from all residents, businesses and organisations, community groups, transport interest groups, councils, and parishes on their views to prioritise transport measures to reduce transport carbon emissions and reach net zero by 2045. The 6-week engagement period was from Friday the 13th of January to Tuesday the 28th of February 2023.

[1] UK100 is a network of highly ambitious local government leaders, which seeks to devise and implement plans for the transition to clean energy that are ambitious, cost effective and take the public and business with them. GCC is an active member.

## 2. Who responded

In total, we had 2,600 visits to our Journey to Net Zero webpage and of those there were over 1,500 visitors engaged further, resulting in 1,060 submitted surveys (*1057 online), 1047 from individuals and 13 representing organisations as stated in Table 2.1.

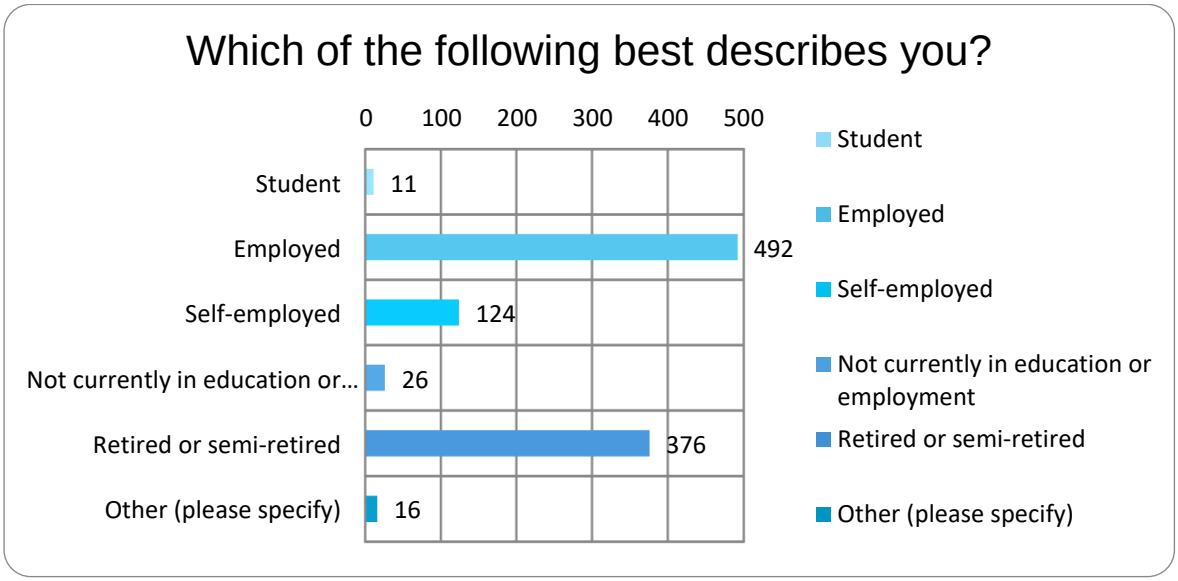
**Table 2.1 - Organisations**

| | |
|---|---|
| Environmental | Bedrock Geothermal Ltd |
| Community | CPRE |
| Political | Forest of Dean Green Party |
| Rail | Gloucestershire Community Rail Partnership |
| Community | Greening Tetbury |
| Environmental | Gloucestershire Wildlife Trust |
| Transport Operator | Henshaws Executive Travel |
| Parish | Standish Parish Council |
| Rail | Stratford Rail Transport Group |
| Parish | Weston sub-edge Village Hall Charity |
| Business | GFirst LEP (Construction and Infrastructure Business Group) |
| Business | Stantec |
| Youth | Gloucestershire Youth Climate Group* |

*GYCG submitted their survey after the deadline.

There was a wide geographical spread with responses covering the whole county. The breakdown of responses and quantifiable analysis is based on the 1057 online surveys. Most individual responses came from people who described themselves as employed/self-employed (59%) or 36% retired, only 1.1% of students responded as shown in Table 2.2.

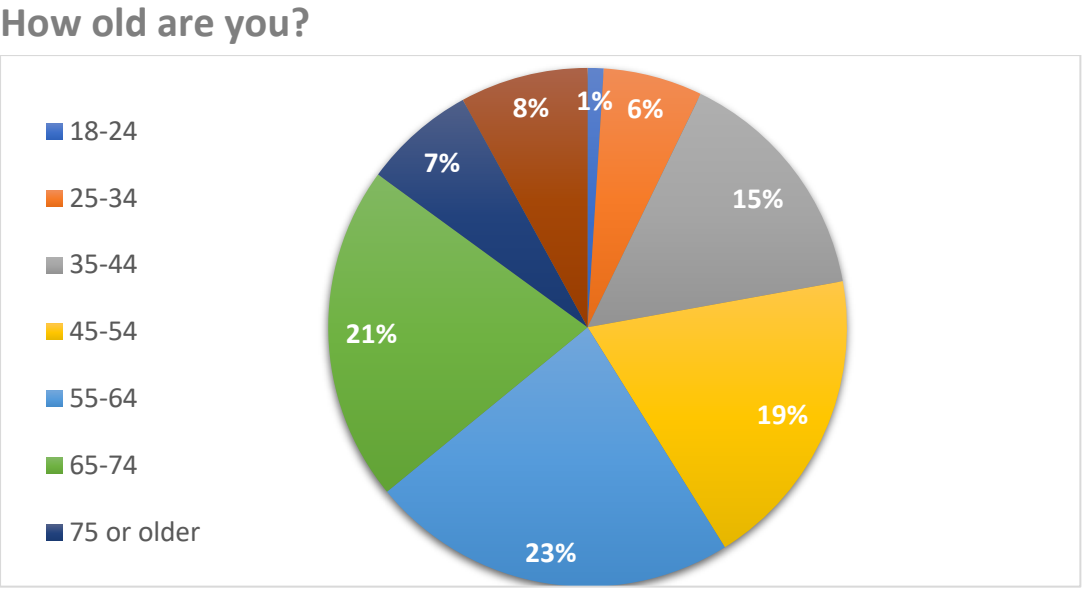
**Table 2.2 – Breakdown of Respondents**




Participants were highest from the working age population (18yrs – 64yrs), making up 64%, representing above average responses from this age bracket for Gloucestershire, which is close to 56%. Respondents aged 65yrs and older represented 28%, again this is also above the county average for this cohort[2], the remainder preferred not to state. The relatively small number of students reflected in the age profile of respondents, with a relatively low number of under 35yr olds, representing just 7% of participants. Shown in Figure 2.3.

[2] population-overview-infographic.pdf (gloucestershire.gov.uk)

**Figure 2.3 Survey respondents demographic breakdown**




To further understand the views of younger people, we attended the Gloucestershire Youth Climate Group (GYCG) in March 2023 to take feedback, they were particularly interested public transport, in projects such as Mass Rapid Transit and funding to support infrastructure investment. The results of GYCG's submitted survey sets out their highest priorities as better public transport and better walking and cycling infrastructure as these remain young people's principal mode of transport to education. This confirms their feedback at our Decarbonising Transport Forum. GYCG's lowest priority was electric vehicles, specifically setting out in feedback that GCC should "focus on public transport and not individual cars".

There is a recognition of the need for demand management and the barrier to electric vehicle take up as partially being the charging network. They reflected the incentives to travel less for them are local services and safer access to those services on foot and by bike. The young people see the benefits of behaviour change to sustainable modes of travel driven firstly by costs, followed by the environmental benefits of CO2 reduction and lastly the health benefits to themselves. GYGC see local government, transport operators and national government as best placed to shift to a less carbon intensive transport system. Finally, they see these as their top 3 challenges and opportunities to decarbonise transport in Gloucestershire. We will continue to engage with this group going forward.

| Gloucestershire Youth Climate Group | |
|---|---|
| **Challenges** | **Opportunities** |
| Behaviour | Willingness |
| Rural | Awareness |
| Cost | Youth |

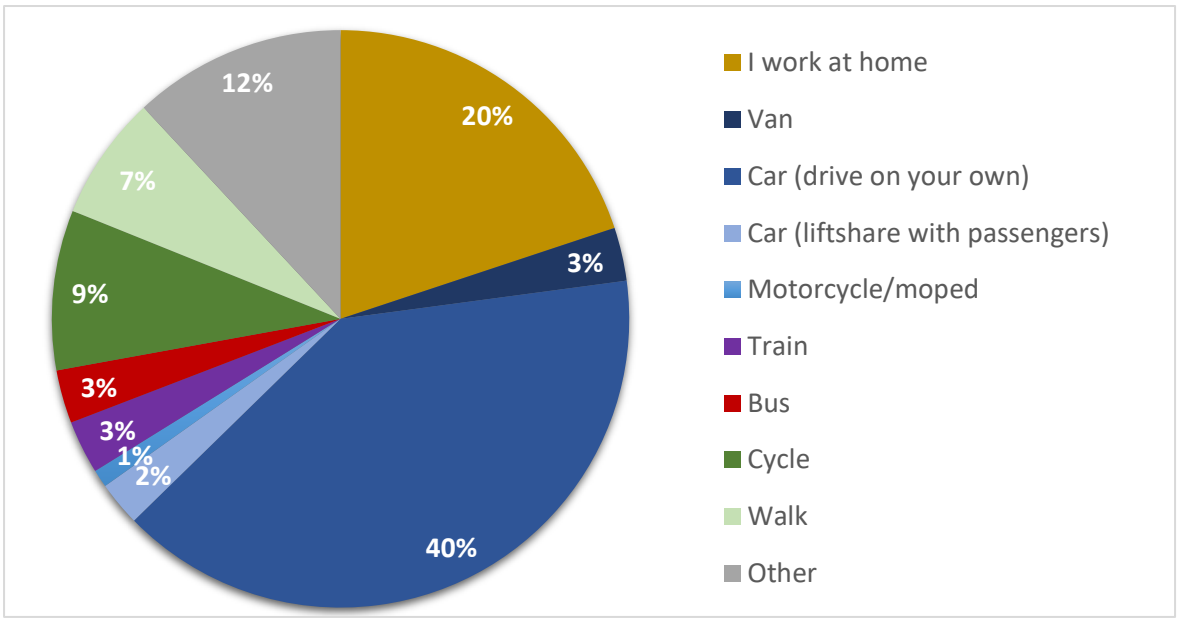
*"…focus on public transport and not individual cars".*

Of the participants 15.7% use a mobility aid, this supports the equality question on disability, long-term illness, or health condition, where 19% of participants registered as disabled, compared to 16.7% disabled in Gloucestershire[3], the remaining participants, 70.7% do not have a disability and 10.2% preferred not to state. Further breakdown shows; 48.8% of participants male and 42.4% female, 72.3% of respondents said they were heterosexual or straight and 45% stated they did not feel they belonged to a particular faith and 34% said they were Christian. Engagement was overwhelmingly from people who described their background as white British, with the 4.6% from the BAME community which is in line with the proportion of Gloucestershire's population with Black and Minority Ethnic backgrounds[4], this was achieved by directly targeting all protected characteristic groups.

## 3. Current travel behaviour and willingness to change

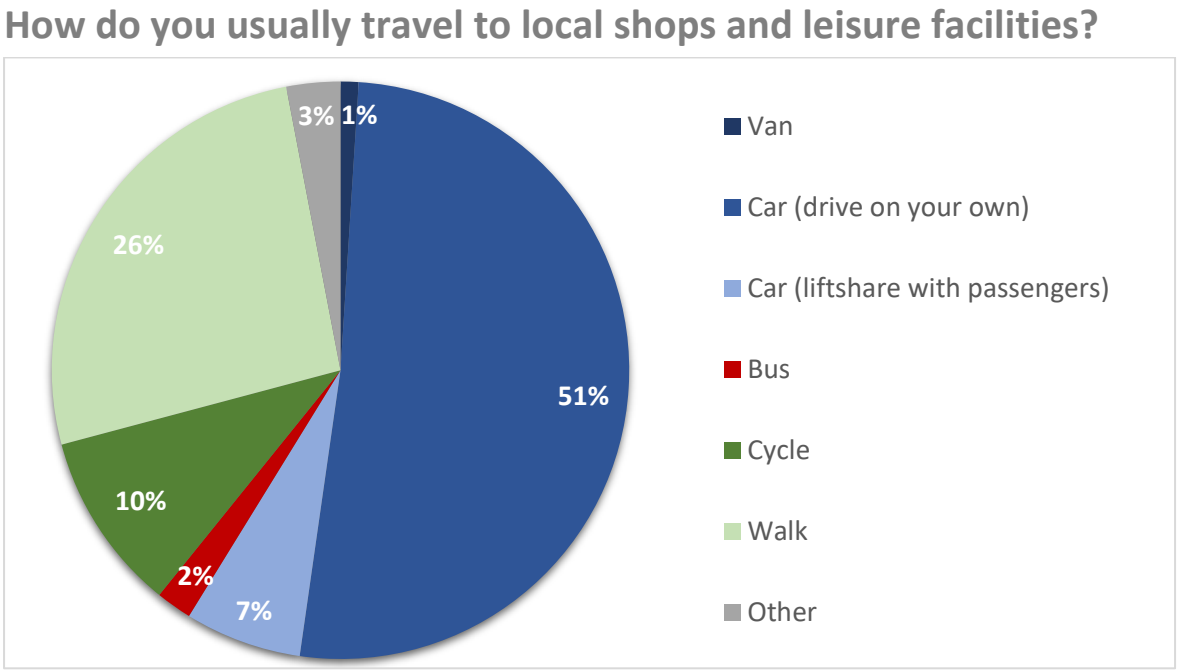
Most survey participants (95%) have access to a private car; 43% were driving a car or van to get to work or education, 20% work from home, 6% used public transport (train or bus) and 16% used active modes of travel (walking or cycling). Of those who work at home, 7% stated they were semi-retired. Of the remaining participants 12% chose other as their main mode of travel to work or education, these were retired individuals. Shown in Figure 3.1.

**Figure 3.1 – Main mode of travel to work/education**




[3] Inform Gloucestershire - https://www.gloucestershire.gov.uk/media/2113636/equality-profile-2022-v2.pdf
[4] Inform Gloucestershire - https://www.gloucestershire.gov.uk/media/2113636/equality-profile-2022-v2.pdf

**Figure 3.2 – Main mode of travel to local shops/leisure facilities**




In Figure 3.2 it is encouraging to see 36% of respondents using active modes of travel (walking and cycling) as an alternative to the car. As only 2% use bus to access local shops and leisure facilities, this is lower than the combined public transport use (bus/train) for access work or education. The survey feedback for smarter access: reducing the need to travel by car (*Section 4.2*) shows that incentives such as, making it easier and safer to access local services by walking and cycling (64%), and more services available locally (59%) are likely to encourage a further increase in active modes of travel for leisure.

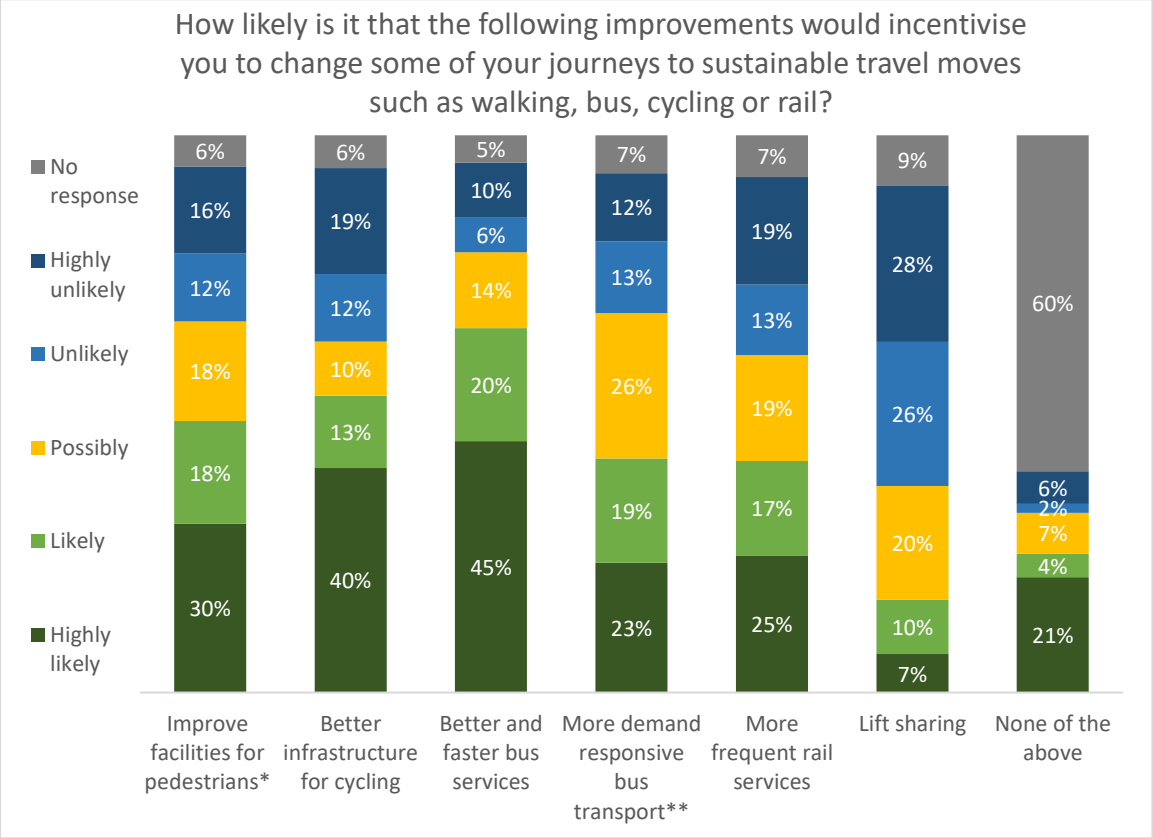
But we recognise that the proportion of respondents using their private car is 58%, although it is encouraging that 7% use lift sharing for leisure as opposed to only 2% for travel to work or education.

When asked which improvements would be most likely to incentivise respondents to change to sustainable travel modes, the following better and faster bus services were seen as by far the most needed intervention, followed by better infrastructure for cycling and improving facilities for pedestrians in Figure 3.3.

Lift sharing, on the other hand remains a lower priority compared to public transport, but lift sharing remains a possibly to likely option for up to 37% of respondents, when considered in relation to coming out of a pandemic, this remains a positive option. We currently have c.3,000 registered on Liftshare Gloucestershire, with only a small number of active members. Lessons learnt from Liftshare shows that many members join and then continue informal car sharing with colleagues and familiar members on a regular basis and these trips are not always registered on Liftshare Gloucestershire.

And car clubs were seen as positive and favoured as a medium to highest priority for electric vehicles - 56% (Figure 4.4). This confirms comments around the affordability of electric vehicles and the need therefore for an alternative model to electric car private ownership.

**Figure 3.3 – Likelihood of improvements incentivising changes to some journeys**




***** such as more accessible, safe crossings and pavements
** like the Gloucestershire "Robin" www.gloucestershire.gov.uk/transport/the-robin/

**Other comments received** regarding improvements that could help to change behaviours towards sustainable travel, the top 5 out of the 573 respondents' comments were the following:

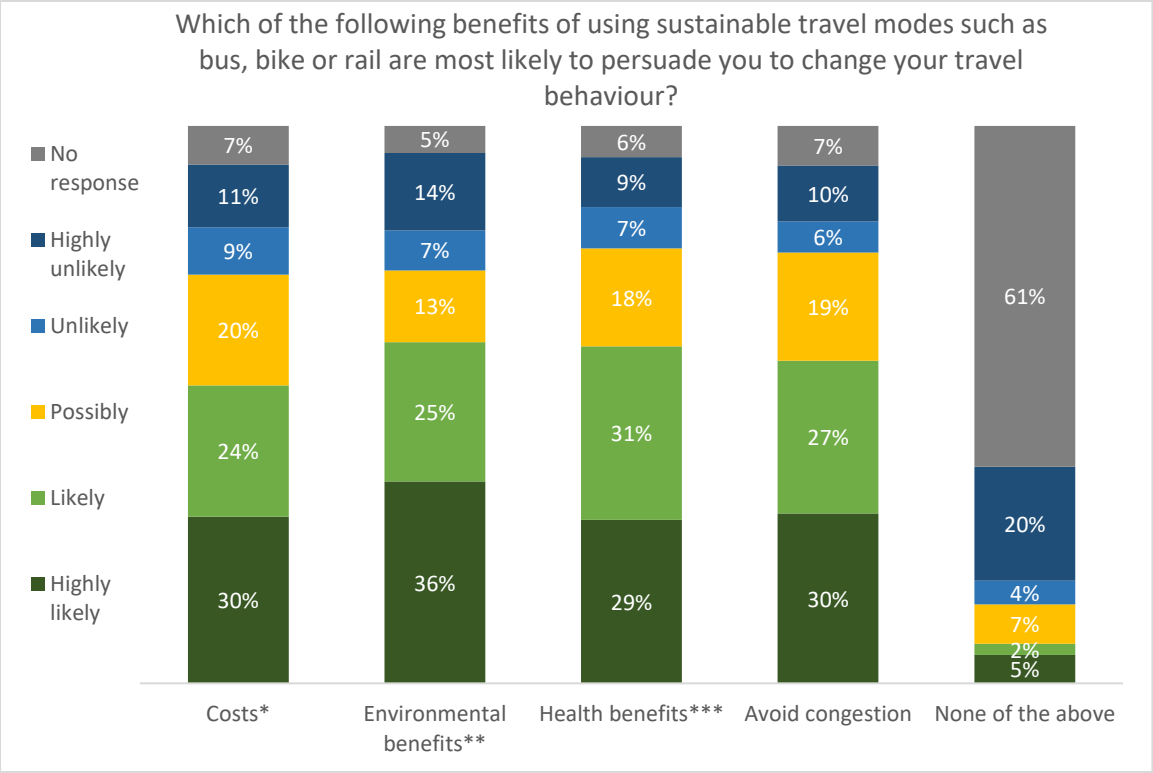
1. Better public transport (e.g., affordability rail/bus fares, regular services) (42%)
2. Safer cycle routes (12.2%)
3. Electric vehicles (e.g., affordable EVs, increase charging network, (6.1%)
4. Demand management (e.g., reallocation of road space/discourage car travel) (4.7%)
5. Traffic management (e.g., speed reduction limits) (4.1%)

Overwhelmingly, almost half of respondents' comments to other improvements to incentivise changes for some journeys were public transport related improvements, bus reliability and cheaper bus/rail fares would incentivise them to change their behaviour, followed by safer cycle routes. The affordability of electric vehicles (EVs) and the lack of electric vehicle charging infrastructure came across strongly in responses. When considered against the likelihood for lift sharing (17%) in Figure 3.3, it shows there is opportunity for alternative models to private car ownership for the future. Figure 4.4 shows that 56% of respondents see a priority for car clubs and car sharing schemes as an alternative to the private ownership of electric vehicles. Demand management (4.7%) and speed limit reduction (4.1%) as a form of traffic management was highlighted as respondents' feedback to better infrastructure for cycling and pedestrians, as shown in Figure 3.3.

Feedback below from stakeholders around choice and opposition to changing behaviour was also strong (3.8%), but many respondents identified the need for behaviour change & awareness through positive messaging and incentivising changes for some journeys.

> *"Discounted fares. Higher parking charges. Discount vouchers for shops depending on travel option … regenerate the city."*

**Figure 3.4 – Benefits that can influence using sustainable travel modes**




N.B. * e.g, reduced fuel costs / ** e.g., reducing CO2 emissions and air pollution / *** e.g., getting fitter

There was a relatively even split between the benefits people thought would come from changing to sustainable travel modes as seen in Figure 3.4, which demonstrates that behaviour change drivers to influence a switch to using sustainable travel modes, such as bus, bike or rail will need to be targeted as cross-benefits, rather than just targeting certain benefits and not others, such as health.

**Other comments received** regarding benefits that could influence using sustainable travel modes, the top 5 out of the 504 respondents' comments were the following:

1. Better public transport (e.g., affordability, reliability, greener services) (45.4%)
2. Safer cycle routes (13.7%)
3. Convenience (7.3%)
4. Placemaking and Healthy Streets (6.2%)
5. Choice (4.6%)

Better public transport was the top benefit to influencing travel mode, be that through interchange hubs (traditionally park & ride) or selling the benefits in terms of convenience, for example not to having to pay for parking, safer and quicker as an alternative option to private car travel. Placemaking came across strongly in respondents' comments and the need for healthy streets and the benefits in terms of public health, reducing isolation and investing for future generations an alternative to car dominated streets. Feedback from stakeholders are shown below.

*"Cleaner travel - electric public transport."*

*"Convenient Park & Ride …"*

*"The lack of needing to pay for parking at the destination."*

*"Investing in the future generations, social contact, getting to know new places."*

# 4. Measures to Reduce Carbon Transport Emissions

Potential interventions to reduce transport carbon emissions can be categorised under the headlines of **avoid, shift,** and **improve**, seen in Table 4.1. Survey participants were asked about what they think should be the highest **priority** and how to make **change** happen.

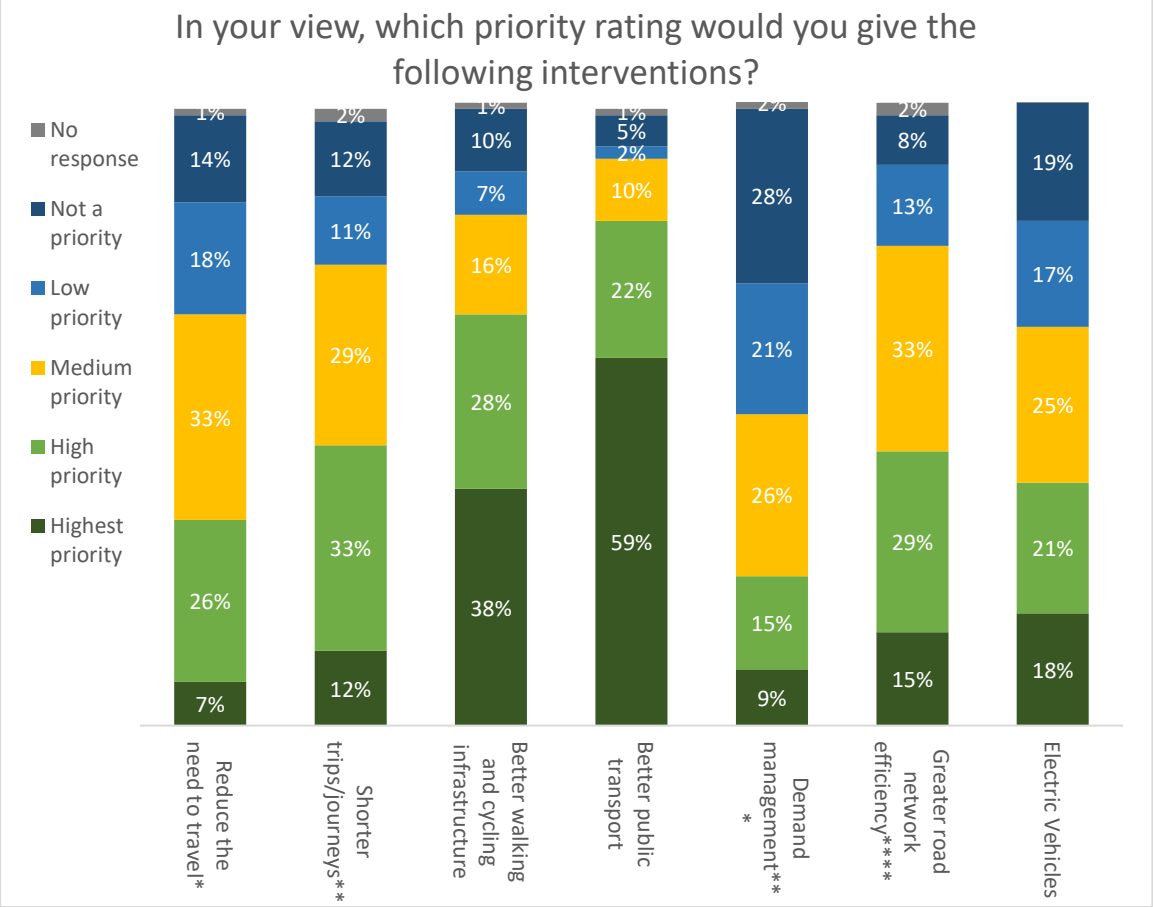
**Table 4.1 Potential Interventions for Decarbonising Transport**

| *Category* | *Lever for change* | *Emissions reduction approach* |
|---|---|---|
| Avoid | Smarter access | Reduce overall travel through reduced trips or length due to improved accessibility (logistics, land use planning, online activities) |
| Shift | Shift mode of travel | Increase the proportion of travel by the most efficient and sustainable modes |
| Improve | Improve vehicle emissions | Increase energy efficiency of vehicles and driving conditions.<br>Move to alternative, less carbon intensive fuel/energy sources, particularly electricity. |

## 4.1 Overall priorities

Out of a list of interventions, better public transport was ranked as the highest priority by far, with 81% of people rating it as high or highest priority and a further 10% as medium priority. Better walking and cycling infrastructure was rated as a high or highest priority by 66% of people and shorter journeys by 45% of people. Electric vehicles were the third highest at 18% and considerably lower than better public transport. Demand management interventions received the lowest priority however, it was still supported by 50% of respondents who ranked it as medium to highest priority. The results are shown in Figure 4.1.

**Figure 4.1 – Priority Interventions**




* e.g., through better digital connectivity

** e.g., by bringing people closer to the services they need to access

*** e.g., emission charges, parking charges

**** e.g., better use of the existing road network

In the comments received, affordable and improved public transport was seen as a priority for respondents (18.9%) who specified what else they thought Gloucestershire should be working on to reduce carbon emissions. Respondents raised concern of lack of electric vehicle charge point infrastructure and the necessity for car clubs and car sharing (9.9%). Demand management (7.9%) was considered important in responses and a lack of understanding on how far other sectors (8%) have come compared to the transport sector to reduce emissions is not fully understood. Some stakeholder comments are below.

*"Making public transport more affordable, improving congestion particularly routes between forest, Gloucester, Cheltenham. A lot of emissions from idling traffic. "*

*"Car clubs to reduce car numbers, more cycle friendly routes including road surface improvements, better subsidised public transport, reduced parking in town and more car free zones, better electric charging infrastructure especially in areas of flats and where there's no off-road parking."*

### 4.2 Smarter Access: Reducing the need to travel

Making it easier and safer to access local services by walking and cycling was the scenario most likely to incentive survey participants to travel less (64%), followed by more services available locally (59%) and being able to work from home (45%). The role of better online services or improved broadband and mobile phone infrastructure was also seen as having a role to play in reducing travel, although not as important as having access to local services, that are both easier and safer to reach (see Figure 4.2). These results support the feedback from the transport forum (July 2022) when key stakeholders said 'making local centres more attractive for walking and cycling and easier to get to would result in the biggest reduction in trips and trip length (out of the options provided).

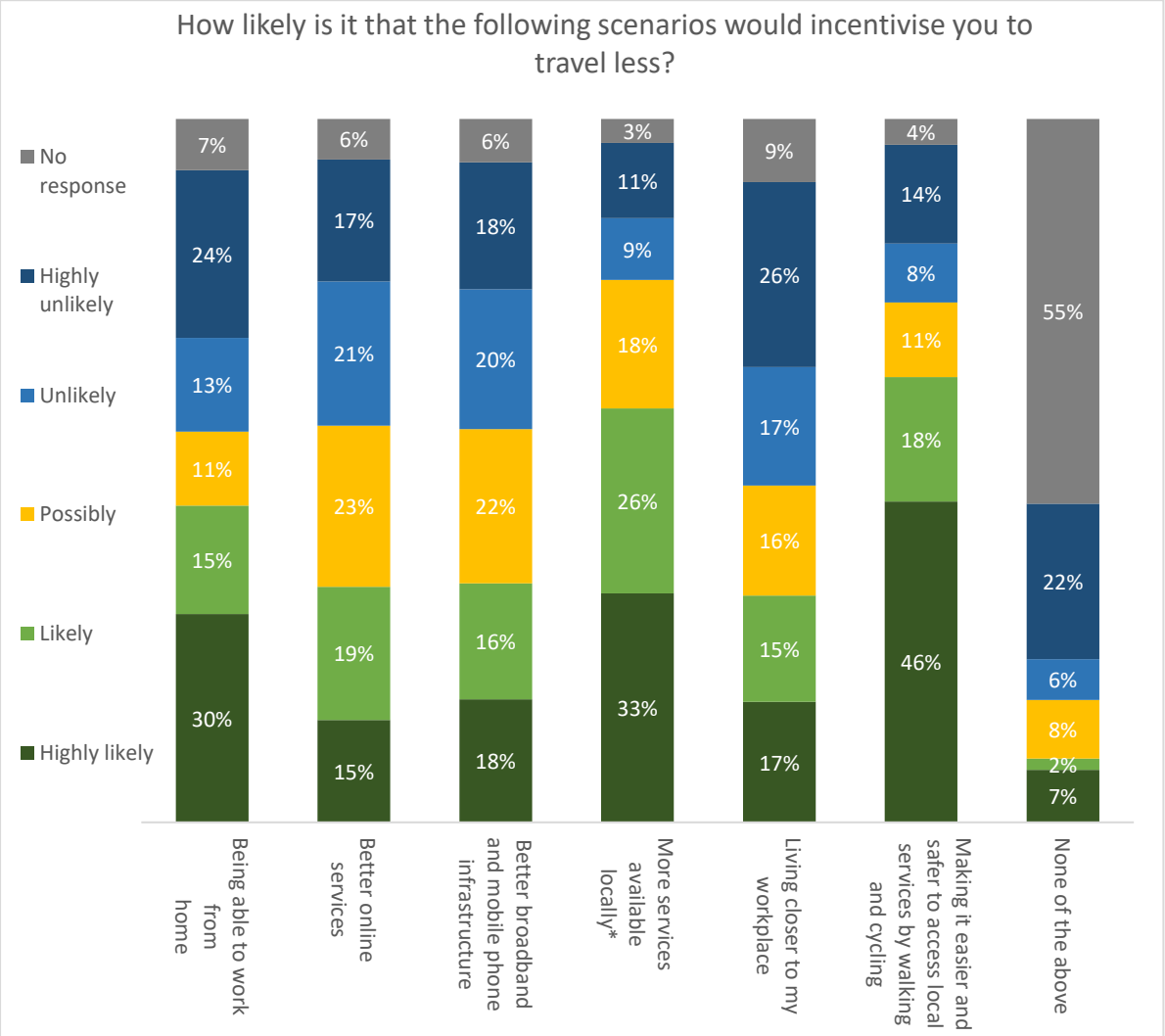
Just 9% of respondents answered none of the above to positively incentivising them to travel less, and a larger proportion (28%) responded negatively; unlikely or highly unlikely. In the additional qualitative responses, providing the choice to travel came across particularly strongly (19.6%), this is possibly because of associations with restrictions during covid-19 lockdown, came across as limiting travel choice. Feedback also reflected participants are already reducing travel by car (11.5%), partly through working from home or retirement. The largest proportion of responders (28%) were 65yrs and above, and this came across in the 43% of responses expressed that living closer to the workplace was unlikely or highly unlikely to incentive them to travel less.

Additional comments on scenarios that would incentivise less travel came back to better public transport offer (19.5%) in order to travel less by private car, similar to response of choice (19.6%). Overall, there seems to be a positive willingness to shift behaviour, provided the choice of local services and improvements to public transport, digital and active travel infrastructure was available. And 5% of additional responses related costs of car ownership in terms of levelling up car travel costs to public transport would incentivise people. See comments below.

*"I don't travel a huge amount however when I want to, I have little option but to use my car, so more local services would be helpful. Also, when I do need to travel, e.g., to the station which I do once a week, there are no practical public transport options."*

*"Due to costs of fuel, insurances etc I do already travel less, especially since recent retirement. However better local public transport (is currently very poor) would reduce my car use further."*

**Figure 4.2 Scenarios to incentivise reduction in travel**

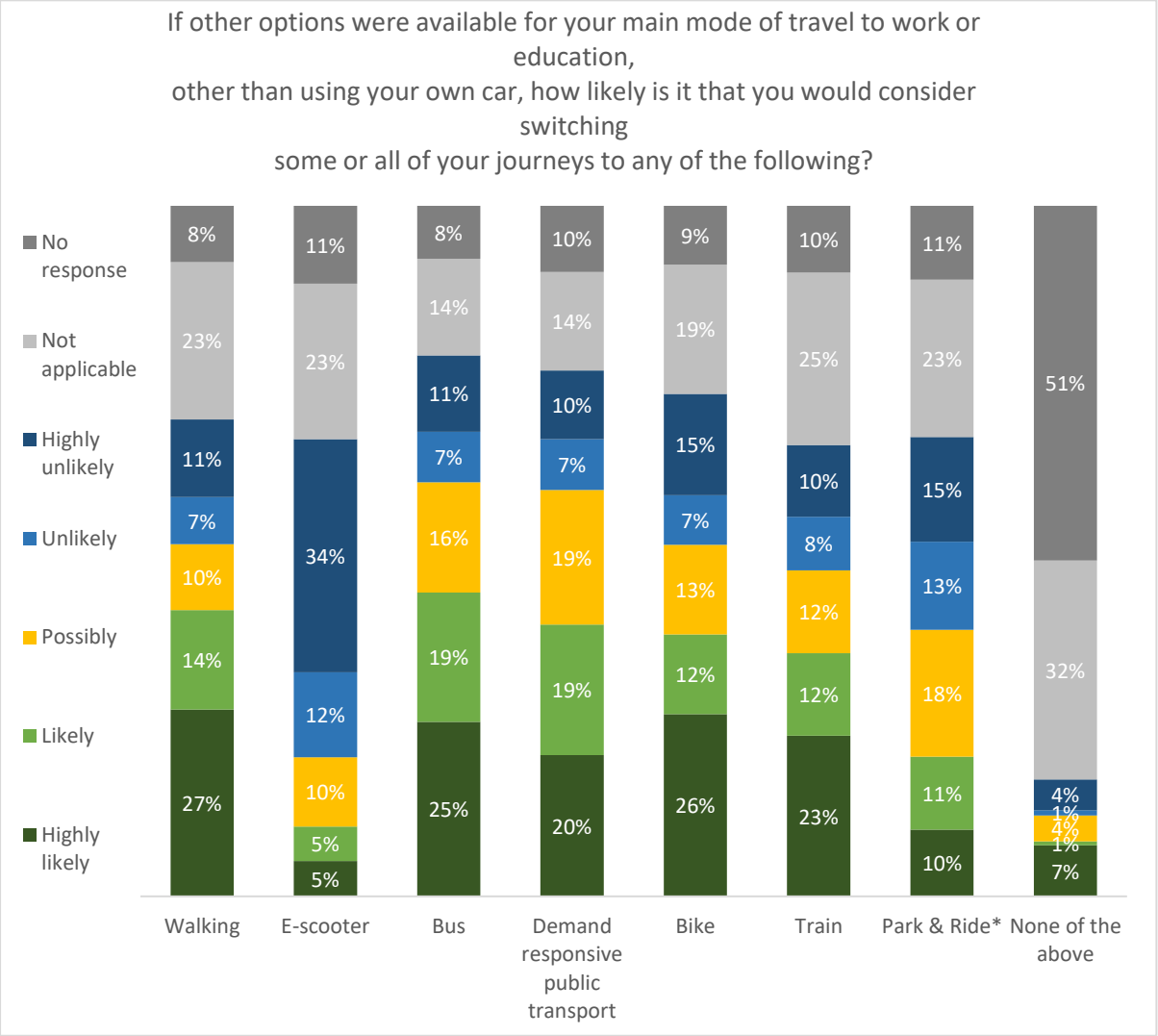



* (closer to where people live)

## 4.3 Shift mode of travel

Figure 4.3 shows travel to work and education, participants were most likely to consider switching some or all of their journeys to bus (44%) and demand responsive public transport (39%) if options were available. And 41% of respondents would be likely to walk, 38% to cycle, if more options were available. E-scooters were seen as least attractive to the survey participants.

**Figure 4.3 Sustainable travel option, most likely to make people switch mode**




* Interchange

Survey results support the transport forum's feedback for excellent public transport provision came through clearly as the highest priority. Better public transport was also seen as a key requirement to cater for the needs of an aging population, particularly in a rural context.

When asked what else Gloucestershire should be working on to reduce carbon emissions, responses included safer cycle routes, affordable public transport including rail service improvements, speed limit reduction, and sustainable development were considered important issues. See comments below.

*"Make it easier to live without a car. …Stop concentrating services in large central hubs. Keep them local."*

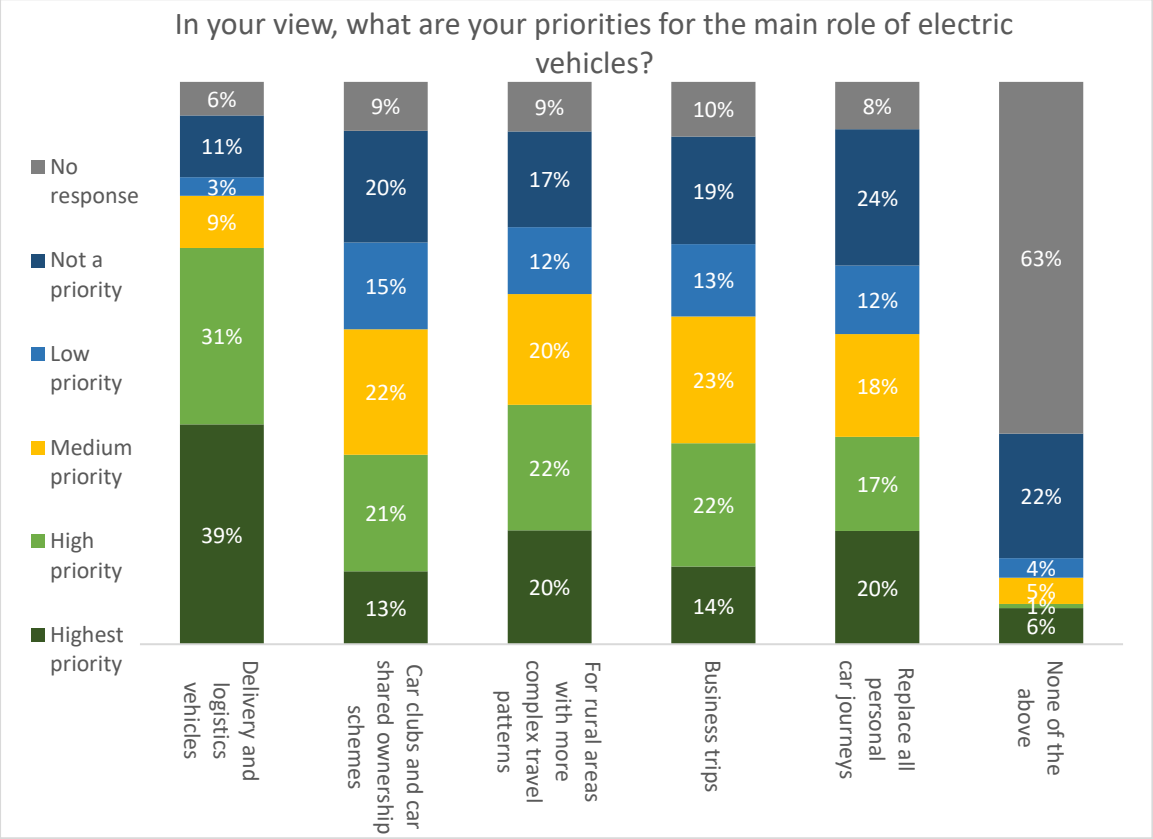
*"It needs to be safe, more 20mph speed limits in towns, villages and suburbs, then people will feel safer cycling and walking."*

*"Reducing vehicle speeds (e.g. widespread 20mph) to improve local community conditions for active travel. Stop building larger and larger roads that induce demand, and encourage people to live further away from destinations, creating car dependency."*

## 4.4 Improve vehicle emissions

People responding to the survey felt that the primary role of electric vehicles should be to be used as delivery and logistics vehicles, followed by a use in rural areas. Replacing all car journeys with electric vehicles received the lowest support but was still names as a priority by 55% of respondents. Electric vehicle car clubs received 56% medium to highest priority, as seen in Figure 4.4.

**Figure 4.4 Priorities for the main role of electric vehicles**




Amongst Gloucestershire respondents a level of realism and understanding for the future role of the electric vehicle, and the benefits to other road users in terms of sharing road space and the necessary improvements to public transport. Responses show freight logistics are considered to be a high to highest priority at 70%, followed by rural areas at 42%. An acceleration in home deliveries has seen an increase in light goods vehicles (LGVs) in the county by 72% (2000-2017), this reflects a national trend[5].

Although 37% of responses stated a priority for electric vehicles to replace all personal car journeys, 36% of responses recognised the need for business trips to convert to electric vehicles. Gloucestershire is home to 29,885 businesses and 640,650 people, all of which travelled 3.38 billion vehicle miles in 2020. And there are approximately 40,000 households in the county that have no vehicle to access employment, education, and services[6].

From the additional feedback responses received, the majority of respondents are cognisant of the need to achieve net zero by transport decarbonisation and recognise that we cannot achieve this by a direct swap from petrol/diesel vehicles to electric vehicles. Respondents were either concerned that the national grid infrastructure is not sustainable, or the environmental impacts of batteries are not the solution. The answers lie in a combination of solutions to achieve net zero, which support improved public transport and active travel infrastructure as well as the role of electric vehicles as shown in respondents comments.

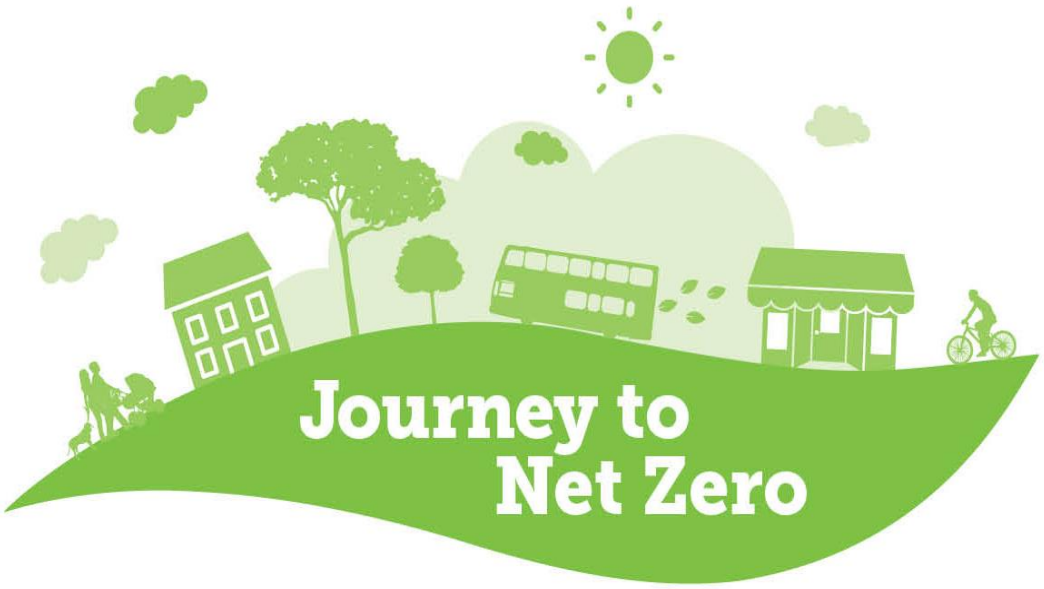
[5] Local Transport Plan: Gloucestershire LTP 2020-2041 | Gloucestershire County Council

[6] Gloucestershire Decarbonising Transport Forum (July2022) – Our Journey to Net Zero - j2nz-decarbonising-transport-forum-gloucester-20220719.pdf (gloucestershire.gov.uk) (presentation).

*"I believe we need fewer vehicles overall and of those needed, they need to be electric."*

*"Private electric cars should, in my opinion, just have a transition role. In the long run, there won't be enough space on the roads if everyone keeps relying on them. In my opinion, the priority should be with improving the infrastructure for active transport (walking and cycling) and electrifying and improving (vastly!) public transport with a role for shared car schemes too."*

*"Only to provide an alternative to less polluting vehicles when combined with greener sourcing of electric vehicle components for vehicle required trips essential. EV use should be in tandem with changing travel and patterns to reduce overall travel and crucially developing source to trip carbon neutral travel through digital or other connectivity solutions."*



# 5. Implementation

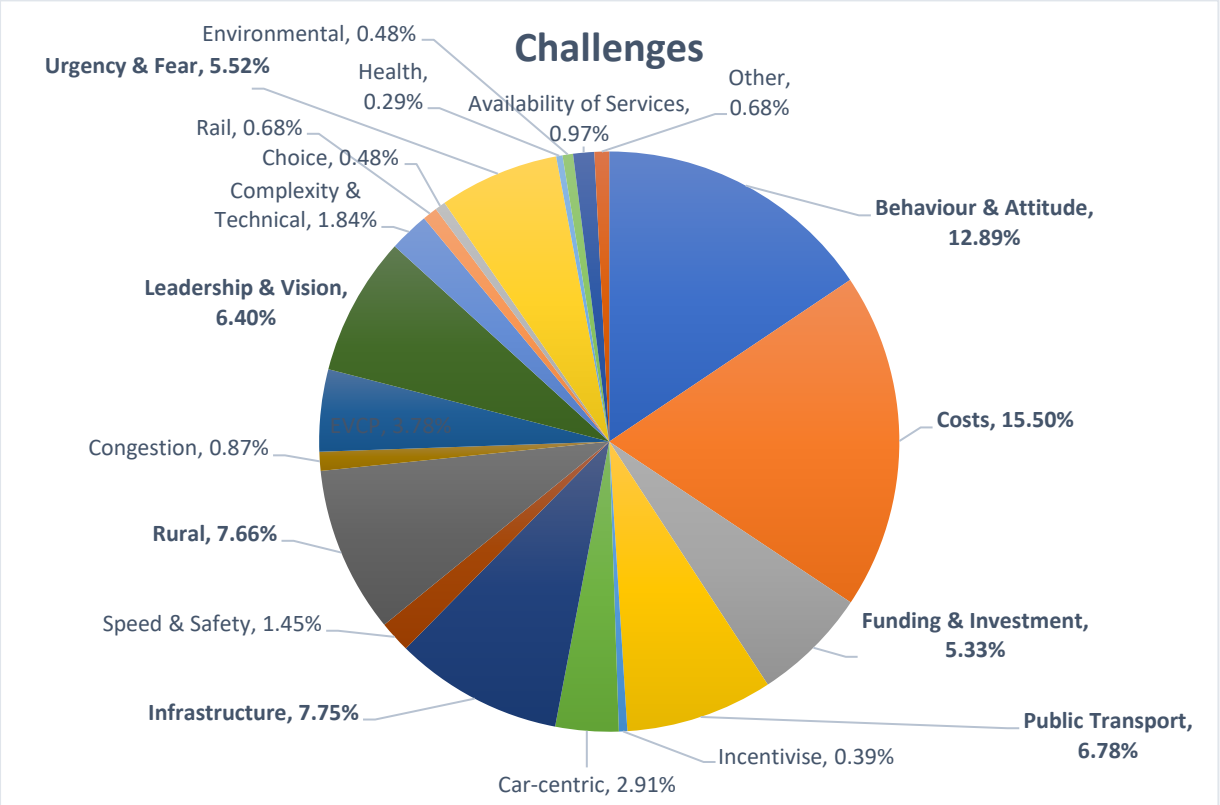
### Challenges

Where participants were given the chance to provide comments on their top 3 challenges for transport decarbonisation, respondents said:

- Costs
- Behaviour & Attitude
- Rural

Figure 5.1 shows respondents overwhelmingly said costs (15.5%) were the most challenging, we could interpret costs in couple of ways; the costs of delivering the interventions necessary or the cost of purchasing an electric vehicle for example. Followed by behaviour and attitude to change (12.89%), infrastructure (7.75%), rural issues (7.66%), public transport (6.78%). Leadership and vision (6.4%) came across as just as important as the urgency and fear (5.52%) of lack of progress to achieve targets. There is a recognition of the challenges of funding and investment (5.33%). Respondents are concerned with the challenges of lack of the electric vehicle charging network.

**Figure 5.1 - Challenges**



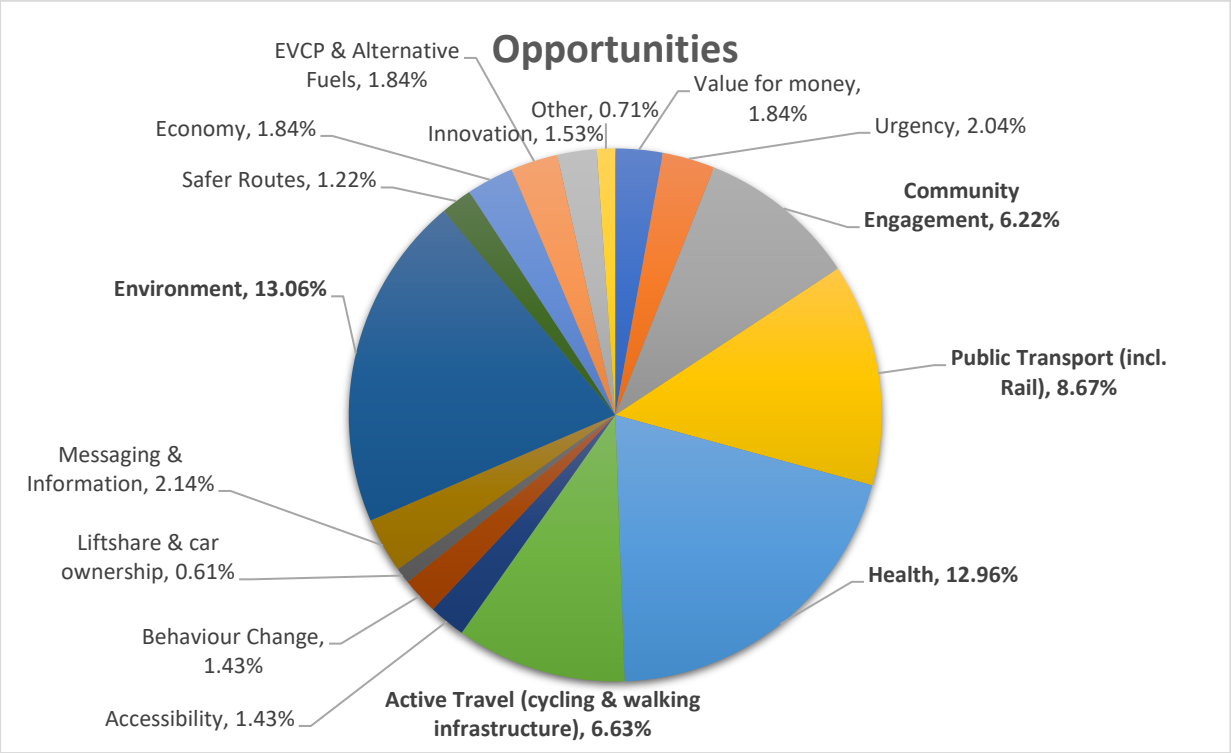
## Opportunities

Where participants were given the chance to provide feedback in the form of comments on their top 3 opportunities to decarbonise transport, respondents replied with:

- Environment
- Health
- Public Transport (incl. rail)

In Figure 5.2 responses show that environmental (13.06%) opportunities for a cleaner, greener county comes across strongest, with health (12.96%) and the wellbeing of people to live happier active lives, supported by the response to opportunities for active travel (6.63%) and the supporting infrastructure necessary to provide for this. Respondents also raised opportunities for affordable, efficient public transport (8.67%) network as imperative. Survey participants stated they wanted to see the opportunity for community engagement and collaboration (6.22%).

**Figure 5.2 - Opportunities**



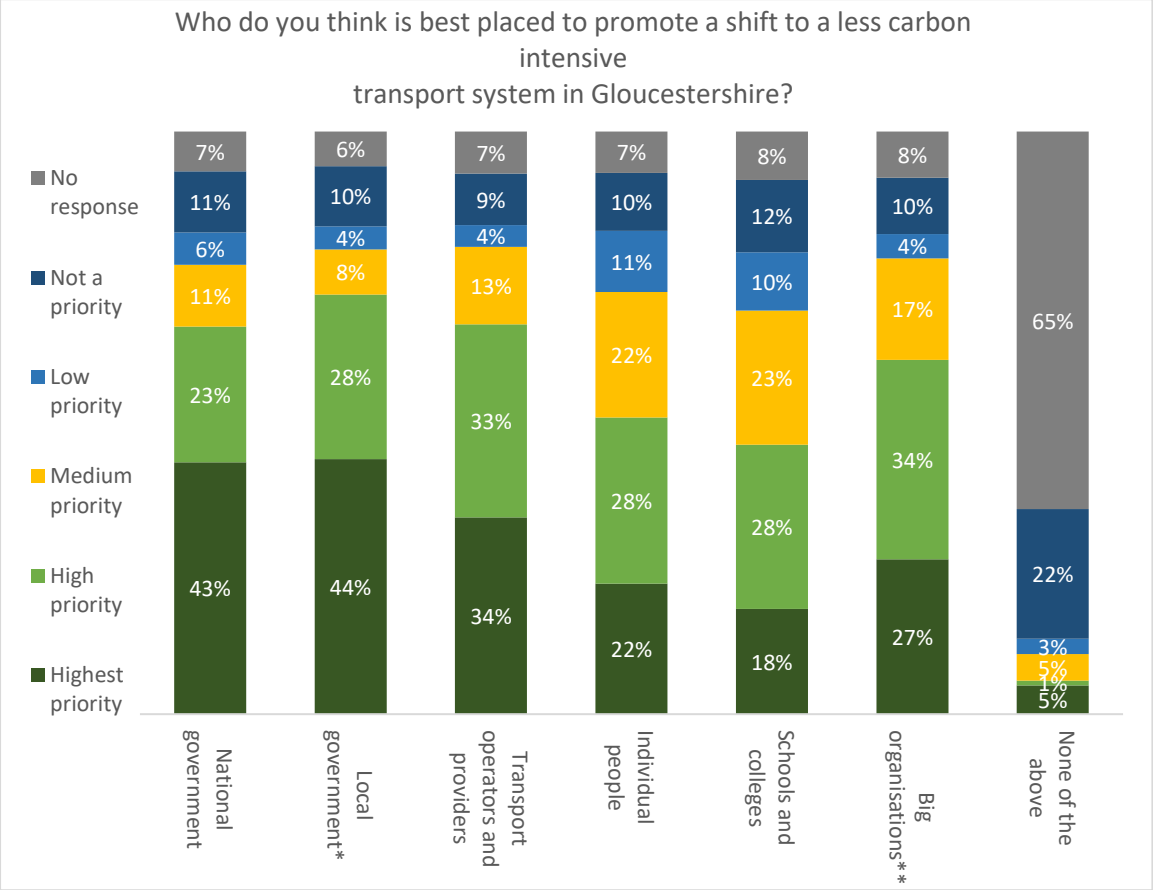
## Priorities

People clearly see the responsibility to promote the shift to a less carbon intensive transport system in Gloucestershire with government, both at a local level (72%) and at a national level (66%). Transport operators and big organisations were also seen as being equally placed to promote a shift to a less carbon intensive transport system for the county. And this correlates with Gloucestershire Youth Climate Group's feedback.

When considered the responses overall in Figure 5.3, transport operators were seen to have the greatest potential to decarbonising transport. In Gloucestershire bus and rail have the highest potential to replace the most emitting trips greater than 20km as they generate 60% of emissions. The remaining 40% of emissions generated by trips less than 5km are more suited to a combination of active travel, such as walking, wheelling and cycling.

Responses show that individuals and schools must also take responsibility for decarbonising transport in Gloucestershire. With 50% of individual respondents choosing this as the high to highest priority and only 10% considering their role not a priority (Figure 5.3).

**Figure 5.3 – Priorities**




* (your local council)
** such as large employers

Additional feedback show overwhelmingly the public are best placed to shift to a less carbon intensive transport system with the support of local and national government. Respondents expressed in feedback the need for community engagement and a coordinated approach to help make the shift to sustainable travel modes. See comments below.

> *"Community organisations working with local government. Parish and Borough Councils understanding local need and working with County Council. Housing developers coordinating transport links taking into account the needs of the wider community, and not just the needs of those living on their new developments."*

# 6. Conclusion and general comments

Almost 1500 responses were received to the transport decarbonisation survey, including additional response from young people. Participants were given the opportunity to comment on what they think should be the highest priority and how to make change happen. GCC officers will continue to improve our reach to all groups including younger people to ensure that this demographic is represented better in the future. GCC took the opportunity to meeting directly with Gloucestershire Youth Climate Group to hear their views and are continuing to work in partnership to make informed decisions in the future.

Although the car is currently the dominant form of transport in terms of travel behaviour, the survey feedback demonstrates that better and faster bus services are most likely to incentivise people to change how they travel. Participants in this survey said they would be most likely to consider switching some or all of their journeys to bus and demand responsive public transport, if reliable and affordable options were available.

Better infrastructure for cycling and improving facilities for pedestrians is seen as equally important, and respondents feedback to making opportunities for cross benefits to health and the environment. Making it easier and safer to access local services by walking and cycling is the scenario most likely to incentive survey participants to reduce their travel on a daily basis.

The majority of respondents are aware of the need to reduce transport carbon emissions and recognise that we cannot achieve this by a direct swap to electric vehicles. Survey feedback shows the primary role of electric vehicles should be for delivery and logistics vehicles, followed by use in rural areas. Respondents recognise the role for electric vehicle shared ownership through car clubs and new approaches to car ownership, resulting in less cars, less congestion and improvements to public transport reliability and the local economy.

Behaviour and attitudes to change come across as a key challenge, and the message that individuals have a central role to play to reduce transport carbon emissions. This will require taking every opportunity for collaboration, taking all stakeholders along the journey to net zero. And the survey puts a strong emphasis on local and national government as being best placed to promote a shift to a less carbon intensive transport system for Gloucestershire. Where government sets the policy and funding in place and local government together with our partners provides the leverage at a local level.

Overall, public feedback sets out a positive alternative approach to future transport provision, that is broadly in line with the potential interventions to reduce transport carbon emissions categorised under the headlines of smarter access, shifting travel mode, and improving vehicle emissions.