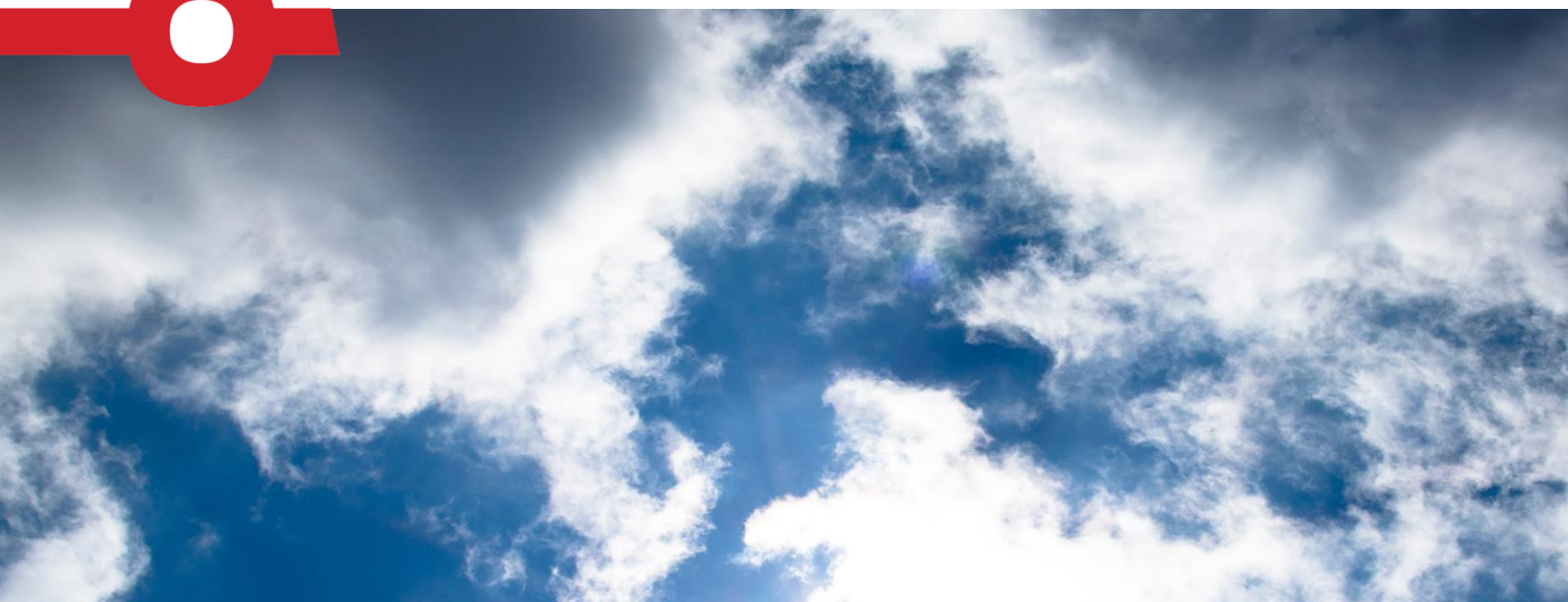


GREATER MANCHESTER CLEAN AIR PLAN DELIBERATIVE RESEARCH



SYSTRA

GREATER MANCHESTER CLEAN AIR PLAN

DELIBERATIVE RESEARCH

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EXECUTIVE SUMMARY

Background and Approach

Transport for Greater Manchester (TfGM) commissioned SYSTRA to undertake a research study to understand views on potential Clean Air Plan measures by those who will be potentially affected by them.

Deliberative research with business representatives and transport operators, based within or just outside Greater Manchester, was undertaken to gain insight into:

- Perceptions and level of understanding of air pollution;
- Views and overall levels of support for the Clean Air Plan shortlisted measures;
- Potential impacts of each measure; and
- Mitigations to lessen the impacts of the main measures.

Four deliberative workshops and two focus groups were undertaken, with 172 businesses representatives and transport operators from within or just outside Greater Manchester attending. A wide range of businesses were represented in terms of business size and sector, from across all Greater Manchester districts, operating both LGVs and HGVs, and with varying levels of vehicle compliance. Transport operators included taxi, private hire and coach/minibus operators.

Key Findings and Conclusions

Concern about the levels of air pollution in Greater Manchester is variable. Those with less or no concern are more likely to lack awareness of pollution levels (particularly outside Manchester city centre), lack awareness about the extent of its impacts, express scepticism about data and 'scaremongering', or, when armed with the knowledge about potential measures to reduce pollution levels, express concern about the financial impacts of the measures on their organisation. Those who express concern over pollution tend to have been made aware of pollution levels through the media, road signage and personal experience, and their concern is largely influenced by potential or actual health implications.

For many businesses, particularly once informed about the levels of pollution across Greater Manchester and the health implications, there is an acceptance that measures need to be taken to address the current situation. The concept of introducing a Clean Air Zone (CAZ), with financial assistance for businesses in the form of grants and loans, was considered a plausible way forward by some businesses, particularly those whose vehicles would be compliant by the time the charges come in, or those who could afford to update their fleet or retrofit their vehicles where applicable. Others did not support the CAZ, even alongside a package of financial measures. These were most often those least able to afford newer vehicles and thus most likely to have to pay the penalty fare, and most likely to feel the financial impact, potentially going out of business. These were more likely to be, but not limited to, the smallest businesses, and taxi, private hire and coach/minibus drivers and operators (including those providing social and community transport).

Many concerns about the CAZ and supporting funds and loan measures were raised by both those who overall supported the measures, and those who opposed them, including:

- The geographic extent of the CAZ;
- The administration of the CAZ;
- The focus on business, as opposed to domestic vehicles;
- The lead-in time to the CAZ (especially for long term lease holders, and those requiring specialist vehicles);
- The lack of clarity about how money generated from the CAZ would be spent;
- A decreased market for non-compliant vehicles and a potential increase in the price of/ wait time for compliant vehicles;
- An increase in the cost of living, as costs would be passed onto customers;
- Lack of trust that compliance criteria for the CAZ would not change in the future;
- Scepticism over the financial measures (grants and loans) that would mitigate against costs to businesses, in particular whether the funds would actually be available, be administered sufficiently well, be sufficient in size, and be distributed fairly;
- Concern about lack of clarity over eligibility and application procedures for the financial measures, and lack of alternative ideas to assist businesses such as scrappage schemes and tax breaks; and
- Concern about the lack of effectiveness of the measures in reducing pollution, if small businesses exchanged non-compliant LGVs for old cars, or re-routed vehicles outside the Greater Manchester, thus displacing pollution elsewhere.

Electric vehicles are generally not considered viable for businesses due to their cost, limited range, time to re-charge, and limited number of charging points, even with 600 further points proposed. Measures relating to improving the electric vehicle infrastructure, although desirable for domestic vehicles, is therefore generally considered inappropriate for businesses. Likewise the sustainable journey measure is not considered a useful intervention for businesses without substantial investment to public transport, to improve services and reduce fares.

1. INTRODUCTION

1.1 Study Context

- 1.1.1 In 2017, the UK Government published a revised plan to improve the UK's air quality at local, regional and national levels, requiring local and regional areas still exceeding statutory limits for nitrogen dioxide (NO₂) to comply with legal limits (40 µg/m³) in 'the shortest time possible'. The statutory responsibility for the reduction is placed on local authorities, guided by the Department for Transport and Department for Environment, Food and Rural Affairs (Defra) Joint Air Quality Unit (JAQU).
- 1.1.2 The UK Government has directed Greater Manchester authorities to produce a regional Greater Manchester Clean Air Plan, in order to reduce displacement effects across the ten districts and ensure that other Greater Manchester strategies can be complemented. A number of measures to reduce NO₂ have been identified and a shortlist has been developed including a Clean Air Zone, and other supporting measures, including financial assistance to upgrade non-compliant vehicles, for investment in electric vehicle infrastructure and for promotion of sustainable journey modes.

1.2 Research Objectives

- 1.2.1 Transport for Greater Manchester (TfGM) commissioned SYSTRA to undertake an in-depth deliberative study to understand the perceptions and impacts of potential Clean Air Plan measures on businesses potentially affected by them, as well as any suitable mitigations to reduce these impacts.
- 1.2.2 Deliberative research with business representatives and transport operators, based within or just outside Greater Manchester, was undertaken to gain insight into:
- Perceptions and level of understanding of air pollution;
 - Views and overall levels of support for the Clean Air Plan shortlisted measures;
 - Potential impacts of each measure; and
 - Mitigations to lessen the impacts of the main measures.

1.3 Report Structure

- 1.3.1 Chapter 2 outlines the methodology for this research. Chapter 3 presents views on air pollution, and how views change following the provision of information on levels of pollution in Greater Manchester and its impacts. The Clean Air Zone and five supporting measures are discussed, in turn, in Chapters 4-9, broadly following the same structure:
- Opinions of the measure, including level of understanding and initial concerns;
 - Perceived impacts of the measure, both businesses and wider impacts;
 - Anticipated business response to the measure;
 - Suggestions for improving the measure; and
 - Overall level of support for the introduction of the measure.
- 1.3.2 Conclusions and recommendations are presented in Chapter 10.

2. METHODOLOGY

2.1 Deliberative Research Approach

2.1.1 Four deliberative workshops were undertaken in March 2019, each lasting three and a half hours. Additionally, two deliberative focus groups were undertaken just beyond the Greater Manchester boundary (in Warrington and Glossop), each lasting one and a half hours.

2.1.2 Both the workshops and the focus groups followed the same structure and the full topic guide can be found in Appendix A:

Uninformed discussion

- Existing views on levels of air pollution, and suggestions for action to reduce air pollution were explored.

Information session

- Participants attended a presentation provided by an air quality expert on air pollution in Greater Manchester, its impacts, and potential Clean Air Plan Measures.

Informed discussion

- Informed views on levels of air pollution, and suggestions for action to reduce air pollution were discussed again;
- Each of the potential Clean Air Plan measures were discussed in detail.

2.1.3 In the workshops, the presentation was delivered by an expert on air pollution and the discussions took place in break out groups, split by business size or type. Focus groups were led as a single group with the presentation delivered by the moderator.

2.1.4 A deliberative research approach was undertaken to allow for full articulation of discussion topics, in this instance Clean Air Plan shortlisted measures, including a full explanation of the context in which they are required, and rationale for their inclusion. This enables participants to fully immerse themselves in the shortlisted measures, allowing them to envisage their potential impacts within the wider context. Participants also had access to the opinions of other participants and information from experts, allowing them to develop an informed position.

2.2 Expert Information Provided

2.2.1 The slides used in the presentation can be found in Appendix B. The key information provided on air quality and the six potential Clean Air Plan measures, is summarised below.

- Poor air quality:
 - Road transport is responsible for 80% of nitrogen dioxide (NO₂) concentrations at roadside, of which diesel vehicles are the largest source;

- Poor air quality can have long-term health impacts on everyone and it is estimated that poor air pollution contributes to the early deaths of around 1,200 people in Greater Manchester every year; and
 - Over 150 stretches of road across Greater Manchester will still be in breach of legal limits for harmful concentrations of NO₂ in 2021 unless action is taken.
- Clean Air Zone (CAZ):
- A CAZ covers an area of a city or region, operating 24 hours a day, 365 days a year, where vehicles travelling into, within and through that area must comply with emissions standards or pay a penalty charge;
 - The goal is to encourage people to upgrade to a cleaner vehicle – the more people that comply and do not have to pay, the better;
 - In Greater Manchester, older heavy goods vehicles, buses, coaches, taxis and private hire vehicles would be charged from the summer of 2021 and older polluting light goods vehicles would be charged from 2023. Vehicles travelling on the motorways would not be included; and
 - An indicative daily charge of £7.50 for taxis, private hire vehicles and LGVs, and £100 for HGVs and buses/coaches was presented.
- Clean Freight Fund:
- Financial support for the upgrade of light and heavy goods vehicles, minibuses and coaches targeted towards small local businesses, sole traders and the voluntary sector registered in Greater Manchester;
 - The scheme would be subject to an application process where the eligibility criteria has not yet been defined; and
 - Initial work suggests that circa £59m Government funding will be required to support this fund.
- Clean Taxi Fund:
- Greater Manchester licensed taxis and private hire vehicle owners of non-compliant vehicles will be offered financial support when they purchase compliant vehicles from an approved supplier and part funding would be offered for the retrofitting of taxis;
 - The scheme would be subject to an application process, though the eligibility criteria has not yet been defined; and
 - It is suggested that around £28m Government funding will be needed to support this fund.
- Loan Finance Measure:
- Regulated loans to support vehicle change costs and promote the longer term savings that low emission vehicles can offer over time; and
 - The scheme would be subject to an application process, though the eligibility criteria has not yet been defined.
- Electric Vehicle (EV) Infrastructure:

- At least £25m investment to provide an additional 600 Electric Vehicle charging points in Greater Manchester; and
 - 'Experience days' to showcase the benefits of electric vehicles and highlight the support available, including comparing EVs from a range of suppliers, and 'try before you buy'.
- Sustainable Journeys:
- A programme of support and advice for businesses and communities to help them plan more sustainable and less polluting modes of travel; and
 - Encouraging business and communities to promote cycling, walking and public transport, as part of their operating patterns and lifestyles.

2.3 Sample

- 2.3.1 Three of the four workshops undertaken were held with a mix of sole traders and representatives from micro, small and medium/large businesses. One of the workshops was held with taxi and private hire vehicle drivers/operators and coach/minibus operators. The two focus groups just outside the Greater Manchester border contained a mix of all these groups.
- 2.3.2 All participants represented businesses who owned or leased at least one HGV, LGV, taxi/private hire vehicle or coach/mini bus. Participants were recruited using quotas to ensure a wide ranging sample was achieved, including business representatives:
- For whom HGV and LGV use were more and less important to their business;
 - With compliant and non-compliant vehicles;
 - Spread across different industry sectors;
 - Spread across the 10 Greater Manchester districts; and
 - Who had and had not investigated or planned use of electric vehicles.
- 2.3.3 Table 1 outlines the sample of participants achieved by their business size, and for taxi, private hire and coach/minibus drivers/operators, by the business types. Each business size and type was spoken to in separate breakout groups to help identify any differences in views dependent on business size.

Table 1. Participant sample

METHOD AND LOCATION	BUSINESS SIZE/TYPE	NO. OF PARTICIPANTS
Workshops 1-3 within Greater Manchester	Sole traders	27
	Micro businesses (2-9 employees)	31
	Small businesses (10-49 employees)	28
	Medium/large businesses (50+ employees)	29
Workshop 4 within Greater Manchester	Taxi drivers/operators	9
	PHV drivers/operators	21
	Coach and minibuss driver/operator	10
Focus Groups 1-2 outside Greater Manchester	A mix of the above	17
Total		172

2.4 Analysis and Reporting

2.4.1 With consent from all participants, discussions were voice recorded. Verbatim quotes have been provided throughout this report, for which the business size/type and location is provided.

2.4.2 As with all qualitative research, it should be noted that:

- The sample selected for this study is not statistically representative, rather the views of participants from a wide range of business sizes and types are represented in the research;
- Whilst numeric values have not been applied to the findings, descriptors such as 'few', 'some', 'many' and 'most' have occasionally been used to provide an understanding of the prevalence of thought if appropriate;
- Where the views of different business sizes/types are compared, the small sample sizes in the different groups should be taken into consideration when interpreting findings; and
- The views and opinions reported are based on statements made by participants, and are not necessarily factually correct.

2.4.3 If differences between business sizes or location are not highlighted it can be assumed that the views expressed did not vary by these characteristics.

3. VIEWS ON AIR POLLUTION IN GREATER MANCHESTER

3.1 Existing Views on Air Pollution

- 3.1.1 Awareness of air pollution in Greater Manchester, and levels of concern about air quality, varied widely across and within discussion groups.
- 3.1.2 Media reports, the smell in the air and road signage were all cited as generating awareness of air pollution. Views on the extent of the problem was variable, as was levels of concern, which varied from high concern, with some reference to the impact on health, to low concern and questions around the evidence base. Additionally, air pollution was not always considered a problem across Greater Manchester, rather just Manchester city centre, or a problem more relevant to larger cities such as London or Beijing. Consistent was the strong association between air pollution and traffic congestion and roadworks.
- 3.1.3 Suggested actions for tackling air pollution can be split into three key categories, summarised in Figure 1, and discussed in more detail below:

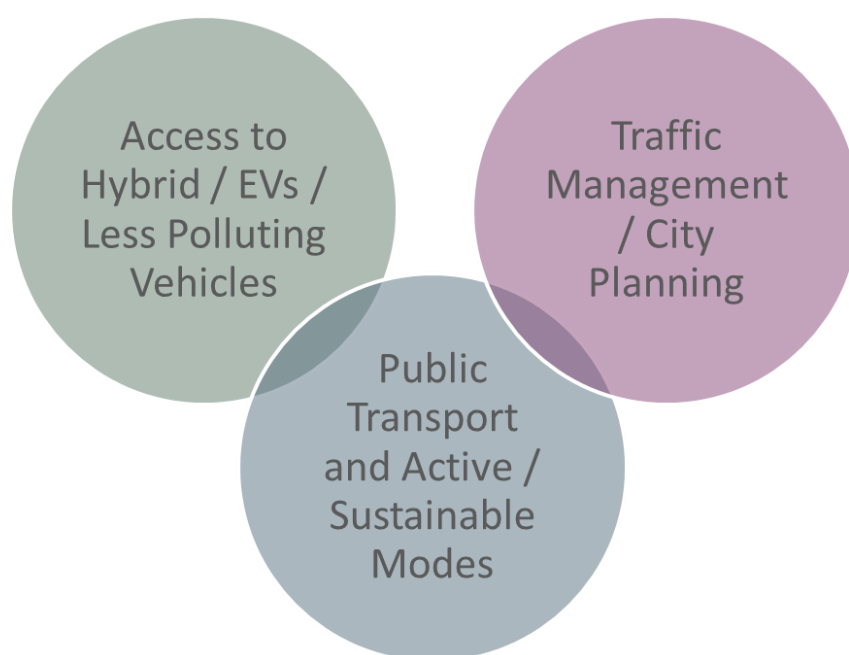


Figure 1. Summary of suggested actions to address air pollution

- 3.1.4 Suggestions relating to **improving public transport and promoting active/sustainable travel** generally related to generating modal shift from car to other modes of transport. Suggestions made include:
- Improve public transport provisions (availability, frequency etc.);
 - Reduce public transport costs;
 - Promote active travel modes, including for school runs and cycle to work schemes;
 - Promote car sharing, particularly for commuters;
 - Make public transport 'cleaner' e.g. electric buses;
 - Provide (more) P&R schemes; and
 - Improve cycling infrastructure, including cycle hire schemes.

3.1.5 Suggestions relating to **improving access to hybrid vehicles, electric vehicles or just reducing emissions from existing vehicles**, included:

- Provide financial incentives to purchase hybrid vehicles, electric vehicles or less polluting vehicles;
- Make electric vehicles affordable;
- Improve electric vehicle infrastructure (charging points) and technology (e.g. range); and
- Improve car technology to reduce emissions, including different fuel options.

3.1.6 Suggestions relating to **improving traffic management and city planning** generally related to reducing congestion, particularly in the city centre, with many references to how poor traffic management creates air pollution. These include suggestions to:

- Improve traffic flow through better management of traffic lights, lanes etc.;
- Charge specific types of vehicles to enter the city centre;
- Restrict specific types of vehicles from entering the city centre completely or at certain times of the day/night, including reducing parking availability;
- Improve traffic flow during roadworks;
- Allow commercial vehicles to use bus lanes;
- Restrict the number of vehicles/CO₂ emissions per business/household; and
- Protect existing green spaces and create new ones, including pedestrian only areas.

“It’s definitely something you hear about in the news, and you can read articles about it; and it’s something that seems to be becoming a bigger, and bigger, problem.” (Small Business, Greater Manchester)

“It’s down to congestion and all the standing traffic isn’t it? Which is due to the Council’s decision to restrict traffic flow.” (Medium/Large Business, Greater Manchester)

“I’d like to see more investment in electric vehicles, especially with all this public transport we’ve got. We should be a lot greener there, with the buses.” (Small Business, Greater Manchester)

“The mayor has been talking about pollution outside schools, which I can see, because it ain’t fair on the children of Greater Manchester, they’re our next generation, so I can see a problem there.” (Private Hire Driver/Operator, Greater Manchester)

“If you are asking me about air pollution, as someone trying to run a business I’m aware of it, but it’s not as high on my list of priorities as making sure deliveries are where they are meant to be, on time.” (Medium/Large Business, Greater Manchester)

“The pollution has been created by the inability of being able to plan roadworks.” (Taxi Driver/Operator, Warrington)

3.2 Informed Views on Air Pollution

3.2.1 Following uninformed discussions on air pollution and potential measures to address it, participants were presented with expert information on air quality, the proposed Clean

Air Zone and five other associated potential measures, as outlined in Chapter 2 of this report. The information presented led to some changes in viewpoints, including:

- Strengthening existing views that air pollution is a problem;
- Strengthening existing views that air pollution is not a problem;
- Changing views to consider air pollution as (much more of) a problem; and
- Changing views to consider air pollution as less of a problem.

3.2.2 The figure below summarises the key pieces of information that led to strengthening of existing views and altering of others.

Information on:

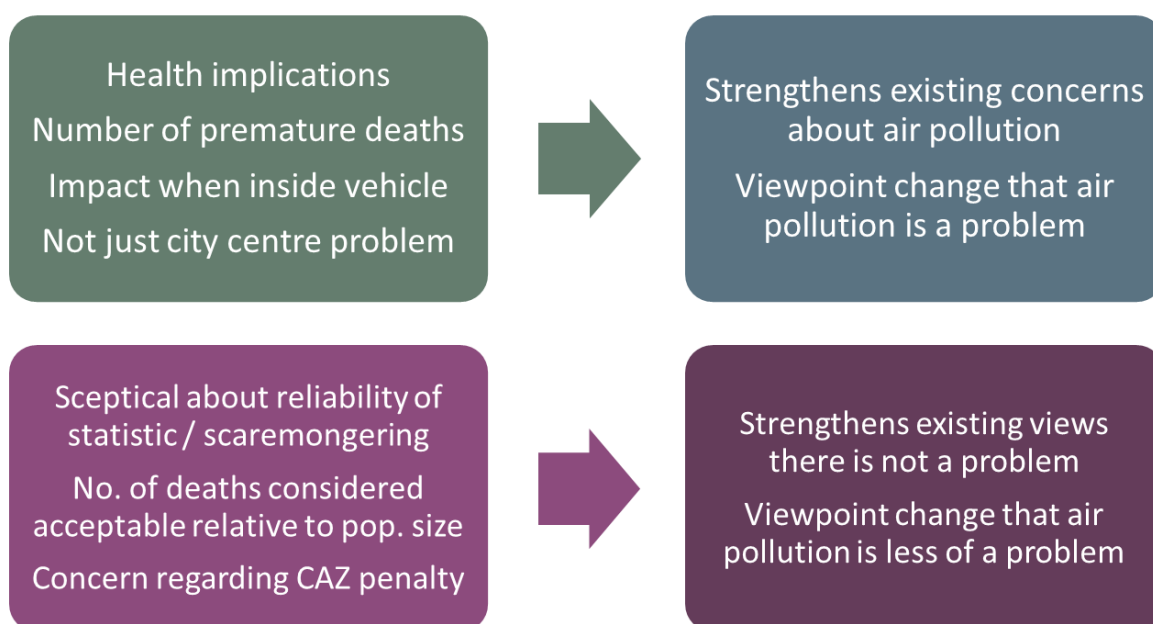


Figure 2. Key information points and resulting viewpoints

3.2.3 The impact of air pollution on health and the number of deaths attributed to poor air quality was key in reinforcing existing views that air pollution is a problem, and changing the minds of those who were uncertain before, to now considering it a problem. Additionally there was surprise and shock that air pollution impacts people when they are in their vehicle (both for professional drivers and when commuting/on the school run). Concern was also generated that air pollution was not just a problem limited to the city centre, but distributed across Greater Manchester.

"Mine [views] have definitely [changed] and one of the reasons for is that I didn't realise how high the death toll was from it, I'm really shocked." (Medium/Large Business, Greater Manchester)

"I certainly didn't realise the problem it can become in years to come unless changes are made. I also naively didn't realise the impact it has on people in busy traffic areas... When it's giving you facts and figures about the impact on older people and young children then yes, it's obviously concerning." (Medium/Large Business, Greater Manchester)

3.2.4 Conversely, the statistic provided in relation to health implications ('poor air pollution contributes to the early deaths of around 1,200 people') raised concerns over reliability of the figures presented, and generated scepticism and suspicion, causing some to suspect that air pollution was less of a problem than it was being made out to be. Some considered that the number of deaths was acceptable considering the total population size of Greater Manchester, and therefore air pollution should not be considered a significant problem. The subsequent information on the Clean Air Zone penalty charges alarmed some to the extent that they felt that air pollution was a problem which had been created in order to justify a 'money-making' scheme.

"The death rate, it might sound cold-hearted, but I think that's acceptable for a city the size of Manchester... I assumed it'd be a lot higher. They also said six months off of the average lifespan. Six months is nothing." (Private Hire Driver/Operator, Greater Manchester)

"I was a bit sceptical. How can you attribute that they actually died from poor air quality... you don't hear about it in the media." (Micro Business, Greater Manchester)

"Mine [views] have [changed]. Gone less. I just think it's just an absolute con to get more money out of you." (Sole trader, Greater Manchester)

4. CLEAN AIR ZONE

4.1 Views on the Clean Air Zone

4.1.1 The Clean Air Zone (CAZ) was discussed with all business sizes and types.

4.1.2 There was some confusion and lack of understanding of the CAZ and how it would operate, including:

- Some did not understand that the zone covers the entirety of Greater Manchester (with the exclusion of motorways), rather than just the city centre;
- Some did not understand that the penalty charge would operate with any non-compliant vehicle movement within Greater Manchester, and thought that a specific boundary would need to be crossed to trigger a charge; and
- Some thought that a new or electric vehicle would be required to be compliant.

4.1.3 Whilst some considered the introduction of a CAZ 'morally' the right thing to do, initial reactions to the CAZ related to financial implications and were often frustration and relating to the 'fairness' of the scheme. There was frustration and criticism of government that this was a significant change against previous encouragement of diesel vehicle purchase and, for council-regulated vehicles, that this does not match the Euro5 requirements. There was also frustration expressed that the scheme does not apply to motorways, and that other industries also cause pollution but are not penalised.

4.1.4 It was considered unfair that the CAZ would not include privately owned cars, when they are perceived to be the major causes of congestion and more polluting. For sole traders and micro businesses in particular, it was considered unfair as their van is a requirement to do their job, when commuters have alternatives. Sole traders also use their van for personal business, instead of owning a second vehicle and felt they would be penalised for this.

4.1.5 It was perceived that those least able to afford the penalty would be the ones most likely to have to pay it, as they would have an older vehicle/fleet because they cannot afford newer vehicles, whilst those more able to afford the penalty charge, with newer vehicles/fleets would not have to pay. It was also felt unfair as it was perceived to be an additional charge or tax to pay, on top of road tax and e.g. the airport charges.

4.1.6 Across all business sizes and types there was a distinct lack of trust that the compliance criteria would not change in the future, for example, requiring Euro7 vehicles. Some, particularly sole traders and micro businesses, also felt the CAZ was simply a money-making scheme.

4.1.7 Other concerns raised relating to the CAZ included:

- The cumulative cost incurred on multi-city trips, with each city charging their own CAZ;
- The increased financial implication of the scheme covering the whole of Greater Manchester;
- How the CAZ would be enforced generally, for non-UK registered vehicles;

- How the CAZ would be enforced for private hire vehicles registered outside of Manchester; and
- The difficulty smaller businesses have pre-planning vehicle movements and therefore knowing when the penalty would need to be paid.

"My thought is then what are they going to use that money for? How will it be put back into the environment? Are they going to improve infrastructure?... It's one thing charging people but how are they going to use that money to improve the air." (Medium/Large Business, Greater Manchester)

"Is it going to be that everyone upgrades, but then in three, four years' time the Government decides that everyone needs to upgrade again?" (Micro Business, Greater Manchester)

"The government have got a lot to answer for because they've been pushing the sale of diesel vehicles for the last 10-15 years, whereas before you only really saw vans, LGVs, taxis that were diesel. Few cars were diesel, whereas now probably the majority of cars are." (Micro Business, Greater Manchester)

"If you're on a lease, and you have a non-compliant vehicle you'll need an exit strategy. If you have 12-18 months left on it you're looking at serious penalties [for terminating the lease early], but if you own the vehicle then you're not going to get anything back, you're looking at scrapping it." (Medium/Large Business, Greater Manchester)

"It's not fair that I'm being charged, but the private cars aren't part of the scheme. I can be in a Euro 6 taxi, but the BMW next to me can still be a Euro 5." (Private Hire Driver/Operator, Greater Manchester)

"You're penalising people who need to go to work to provide for families." (Sole trader, Greater Manchester)

"I've gotta pick-up a trailer in Manchester – that's a hundred quid; then I'm going to Leeds to put the trailer on; then I'm off to London – that's another charge; and then parking up for the night in Birmingham. That could be five or six hundred quid in a day – who can stomach that?" (Sole trader, Greater Manchester)

4.2 Impacts

Business Impacts

- 4.2.1 Comments on business impacts generally related to the negative financial implications the CAZ would have on their businesses, and subsequent knock-on effects including potentially being put out of business.
- 4.2.2 It was considered that both purchasing compliant vehicles and selling non-compliant vehicles would be impacted by the introduction of a CAZ. There was concern amongst most business sizes and types that the CAZ would have a significant effect on the

A private hire driver reported they earn around £270 a week, and the cost of the car, the fuel and the insurance is deducted from that amount. Paying the CAZ charge would lead to another £50 out of his wages.

second-hand market and that the value of non-compliant vehicles would decrease. This would impact vehicle owners if they looked to upgrade their non-compliant vehicle, effectively increasing the net upgrade cost. There was also concern that upgrading to a second-hand vehicle may not be an option, as suitable vehicles would not be available due to increased demand; and that the cost of second-hand compliant vehicles may increase making them unaffordable.

- 4.2.3 Larger businesses, operating HGVs, noted the delay in ordering an HGV and receiving it (approximately a year), which may mean that some are in the process of upgrading their fleet, but penalised by manufacturing delays that could be exacerbated due to increased demand. There was also concern that manufacturers will increase the cost of compliant vehicles, further increasing the cost of upgrading.

"If [manufacturers] know you have to replace your vehicle prices are going to go up, it's a niche market." (Micro Business, Greater Manchester)

"If you've only got one van as a sole trader you could've just lost half the value of your van because no one's going to want to buy it because they're all going to get taxed with this. So even to buy the new van it's just got a bit more even more expensive." (Sole trader, Greater Manchester)

Wider Impacts

- 4.2.4 There was some consideration given, across most business size and types, that the CAZ would lead to improved air quality and therefore health, but this was not universally agreed upon. Some felt the CAZ would result in an overall negative effect on health, due to the stress it would cause.
- 4.2.5 There was concern across almost all business types and sizes that if the penalty is passed onto customers then general cost of living for all would increase.
- 4.2.6 There was also concern, particularly by medium/large businesses and businesses operating on the outskirts of Greater Manchester, that the CAZ would simply move air pollution to different areas, either through fleet circulation or through alternative routes being undertaken to avoid entering Greater Manchester.

"I live in Manchester, so cleaner air on a personal level would be great... I'd rather be healthier, than less healthier." (Micro Business, Greater Manchester)

"What'll happen is a loaf of bread won't be £1, it'll be £2. The charge will go straight back to consumers." (Private Hire Driver/Operator, Greater Manchester)

"I do have support, morally, I think it's the right thing. But now looking at it living in Warrington, I think there's a chance it's going to push the problem to me." (Taxi Driver/Operator, Warrington)

4.3 Business Response

4.3.1 Whilst not all were able to say exactly how their business would respond to a CAZ, the most frequently anticipated responses were:

- Pay the penalty and pass the cost onto customers, particularly for sole traders, micro and small businesses, taxi and private hire drivers/operators and coach/minibus operators, as the cost of upgrading is unaffordable and less preferable than paying the penalty;
- No response would be required as within the timeframe their vehicles were due to be upgraded regardless; and
- Upgrade the vehicle/fleet earlier than currently planned, to avoid paying the penalty charge.

4.3.2 Some sole traders and micro businesses would switch their LGV to a car and add a trailer, or switch to an estate-style car in order to avoid the penalty.

4.3.3 Taxi drivers/operators noted that whilst their preference may be to pass on the cost of the penalty charge to customers, they did not have the ability to do this, and that the additional cost might put customers off using their service.

4.3.4 Taxi, private hire and coach/minibus drivers/operators, both within and on the outskirts of Greater Manchester, anticipated that they might need to leave the trade, as it would become financially unviable for them to continue, as they could not afford to pay the charge nor upgrade their vehicles. This would mean the withdrawal of some social/community transport services provided to public sector clients.

"It could have a knock-on effect on the end-user. Because if I'm gonna be charged per day, per vehicle, I'm increasing my charges. Any Joe Bloggs [the end customer] is gonna suffer that. I ain't gonna let that affect my bottom line, that's for sure. ... When I come into town, I put the parking cost on to the invoice; there'll just be an additional charge for pollution." (Small Business, Greater Manchester)

"Pass it onto the public, but it's unfair on us. It makes us more expensive than private hire and every other mode of transport... it's got to be the public that pay for it, if this is in the interest of the public then it's unfair for us to just pay the charge – we're providing a service." (Taxi Driver/Operator, Greater Manchester)

"We have five vehicles that do school contracts with special needs kids with Rochdale Council. They're not gonna put their contract prices [budgets] up to cover these charges. So, alright, they'll get rid of the minibus trips that takes them kids to school". (Minibus/Coach Operator, Greater Manchester)

4.3.5 Other anticipated responses included:

- Moving their fleet around to ensure that their compliant vehicles operated in Greater Manchester and non-compliant vehicles operated elsewhere (medium and large businesses);

- Retrofitting the vehicle to become compliant (the most frequently anticipated response by taxis drivers/operators); and
- Travelling to Greater Manchester less (businesses operating on the outskirts).

4.3.6 It was noted by all business sizes that it would be easier for those who lease their vehicles to adapt to the penalty, than vehicle owners. Vehicle owners, notably sole traders, tied into finance terms that went beyond the anticipated introduction of the CAZ, noted it would not be possible for them to upgrade in the timeframe.

4.3.7 Whilst the lead-in time was suitable for some due to planned vehicle replacement (meaning the CAZ would need to be announced imminently to maintain the current deadlines), others felt a longer (at least five year) lead-in time would be more appropriate due to the length of lease and finance periods. Due to higher reliance on vehicle ownership and finance deals, smaller businesses and sole traders were considered less able to adopt compliant vehicles within the proposed timeframe, and therefore be compliant, than larger businesses.

A Manchester sole trader bought a 2010 diesel van last year on a 5 year finance deal. They would still be paying off the cost of their non-compliant vehicle after the introduction of the CAZ.

"I don't think the bigger organisations will be affected, because I think we'll just move fleet round that will be compliant. So we've got Euro6 vehicles, we've got some in London... so we'll just shuffle vehicles round as they're due for natural replacement we'll put them into the Manchester area that are Euro6." (Medium/Large Business, Greater Manchester)

"What's going to happen is, people aren't going to go out and pay £35-40,000 for a new vehicle. They'll pay to and a half grand a year as a fine. It's not going to relieve the problem, you'll still have the bad air. I'd prefer to pay £2,750 a year in fines." (Private Hire Driver/Operator, Greater Manchester)

"I will just change my vehicle, 'cos I change my vehicle every three years anyway" (Sole trader, Greater Manchester)

"People need a minimum of 5-6 years, from when it is made definite, not just talking about it." (Medium/Large Business, Greater Manchester)

"The only thing I really disagree with the taxis coming in in 2021, should give the taxis a bit more time for drivers to get into a Euro6. Two years is not enough, especially if you've just bought a Euro5." (Taxi Driver/Operator, Greater Manchester)

4.4 Suggestions for Improvements

4.4.1 Suggestions for improvements to the CAZ scheme can be broadly grouped under four areas: changes to the scheme itself; easing the process of vehicle upgrade; providing more information/presenting the scheme differently; and manufacturing changes. These are each expanded on below:

- Changes to the CAZ scheme:
 - Offer a phased introduction across different areas of Greater Manchester or provide a longer lead-in time generally, or by size of business;
 - Vary the scheme so that the city centre or most polluting areas have stricter compliance rules and other areas more relaxed;
 - Test compliance through individual car emissions, rather than age of car (taxi and private hire drivers/operators);
 - Require one penalty charge if moving through multiple CAZs;
 - Money generated from the CAZ should be used to subsidise public/social/community transport or should be reinvested in public transport, road maintenance and/or local businesses;
 - Emergency service vehicles should be exempt from the penalty charge;
 - Allow drivers/operators to maintain their existing vehicles but mandate that when they are upgraded they must be upgraded to compliant vehicles;
 - Facilitate advance payment in time periods e.g. monthly or annually, rather than having to make individual payments; and
 - Operate the CAZ penalty charge on a 24 hour basis from time of first entry/movement (taxi, private hire and coach/minibus drivers/operators on the outskirts of Greater Manchester).
- Improve ease of upgrading:
 - Provide a grant to assist the upgrade, or make it more affordable in other ways e.g. tax breaks;
 - Provide a scrappage scheme to help with the cost of upgrading (sole traders and micro businesses); and
 - Lease compliant taxis from the council (taxi drivers/operators).
- Changes to the information provided/way the CAZ is presented:
 - Clarify where the money generated from the scheme goes;
 - Alter the language of the scheme away from 'penalty' to something more positive; and
 - Provide more information on the rationale behind the scheme and why it only applies to some vehicle types; and
 - Give examples of success stories from similar schemes elsewhere.

"What's the suggestion for the money that's raised through this? What's going to happen with that money? Is it pumped back into the system? Who uses that money and where does it go? Does it support businesses like us?" (Taxi Driver/Operator, Greater Manchester)

“Rather than making us change vehicles now, they should allow people to drive their current vehicle until it’s ready to be replaced, and then they have to upgrade it to a newer vehicle that meets the standard. Similarly, anyone new who comes into the trade should be told, this is the new criteria, this is the standard of car you need to buy.” (Private Hire Driver/Operator, Greater Manchester)

“In principle I think it’s a great idea. Do you know what’s put me off? The word you used straight away was ‘penalty’ and I think people are under so much pressure from everything changing that one word will make a significant difference because this is a positive step for all our futures.” (Micro Business, Greater Manchester)

“The thing is right, in our line of business, they’re going to Manchester at nine o’clock at night and you pick up at two o’clock in morning, so there’s two charges, you’ve got two days.” (Private Hire Driver/Operator, Warrington)

4.5 Level of Support

4.5.1 Support for the introduction of the CAZ was split. Some representatives, from almost all business sizes and types, did not support the introduction of the CAZ, due to the financial implications on their business and the ramifications on their livelihood; this was most notable for taxi, private hire and coach/minibus drivers/operators.

4.5.2 There were some representatives from all business sizes that did support the introduction of the CAZ: for some it was considered necessary but there were still significant concerns regarding the scheme; for others the health benefit outweighed the financial cost; and for others there would be little or no impact of the scheme on their business as their vehicles are already compliant or would be by the dates required.

“A Clean Air Zone seems like the right thing to do. I think in the future we’ll all be looking back and thinking it should have happened a long time before 2021. I can’t think of what the alternatives would be.” (Medium/Large Business, Greater Manchester)

“We want clean air, but not at any price, we can’t afford to sustain the vehicles that provide the clean air.” (Taxi Driver/Operator, Greater Manchester)

5. CLEAN FREIGHT FUND

5.1 Views on the Clean Freight Fund

- 5.1.1 The Clean Freight Fund was discussed with all business sizes, but not taxi, private hire, minibus and coach operators/drivers, nor businesses outside the Greater Manchester boundary.
- 5.1.2 There were widespread views that the total size of the fund would be insufficient to support the demand for upgrading vehicles to become compliant. There was also a lack of clarity over where the money for the fund would come from (despite this information being provided in the presentation), and some were unconvinced the money would be secured from government.
- 5.1.3 All business sizes had initial concerns relating to the administration of the fund. These concerns included:
- The fund could be open to abuse by applicants;
 - The local council or authority would not ensure it was administered properly;
 - The fund could not be implemented fairly, due to difference in ages of vehicles and different costs to upgrade;
 - The fund was not fair on those who had recently upgraded to a compliant vehicle at their own cost; and
 - The fund could only be used to upgrade to a specific vehicle (sole traders).
- 5.1.4 There were also concerns, for and on behalf of sole traders and small business, that the application process may be overly onerous or time consuming and that this would act as a barrier to engagement, for those most in need of financial support.
- 5.1.5 There was a lack of clarity over the eligibility criteria, with some questioning whether size of business related to size of fleet or number of employees, however most felt the fund should primarily benefit sole traders and smaller business sizes.

“That fifty nine million is nowhere near enough. Let’s say you [the Council] give five grand towards replacing a vehicle, that means you can only help 12,000 vehicles. That doesn’t equate – it’s nowhere near enough... You’ll need two hundred thousand, easy.” (Small Business, Greater Manchester)

“Someone’s gonna expose this. It’s a bit deceitful but you could just go out and buy a shed load of old vehicles; upgrade them all [with the help of Council subsidies] and flog them on ... Surely someone will capitalise on it, in this way. You [the Council] have really got regulate this fund.” (Small Business, Greater Manchester)

“They need to give us a definitive figure on what we’re actually going to receive.” (Taxi Driver/Operator, Greater Manchester)

5.2 Impacts

- 5.2.1 Whilst there was recognition that the fund provides financial support to upgrade to compliant vehicles, there were concerns that manufacturers would deliberately increase the cost of compliant vehicles, so the buyer ends up paying the same (reference was made to 'Help to Buy' property purchase scheme).
- 5.2.2 There were also concerns reiterated that the size of the fund would not be enough to assist the number of businesses that would need to take advantage of it, and therefore the impact on businesses may be minimal.

5.3 Business Response

- 5.3.1 The lack of available information meant that it was difficult for business representatives to confirm whether they would apply for the fund, or not. However, many indicated that, if they needed to upgrade their vehicle and were eligible for the fund, they would be likely to apply.
- 5.3.2 There was a strong desire for the scheme to be promoted and introduced sufficiently in advance of the Clean Air Zone so that if businesses did want and were able to take advantage of it, they would be able to do so before having to pay the penalty charge.

5.4 Suggestions for Improvements

- 5.4.1 Key suggestions for improvements surrounded requests for more information, primarily on how the fund will be administered and the application process. There was also a desire to increase the size of the fund to ensure it would meet demand.
- 5.4.2 Other suggestions for improvement included:
- Provide other incentives for upgrade in addition to the fund, such as removing road tax (sole traders); and
 - Extend the grant to cover other demonstrable 'clean air' initiatives, not just vehicle upgrades (medium/large businesses).

"Maybe another way to help is you don't have to pay road tax [if you switch to a compliant vehicle], as a way to give something back [as an incentive]." (Sole trader, Greater Manchester)

"Maybe there should be another point that says 'or any other initiative' in order to quality or 'any other initiative which demonstrates that that organisation made some change', even things like journey planning and managing the footprint." (Medium/Large Business, Greater Manchester)

5.5 Level of Support

5.5.1 Whilst most supported the Clean Freight Fund in principle, much more detail was requested to confirm this support.

"In principle, it's got to be a good thing, it's got to help businesses, but we need to know how it'll work and who will get it." (Medium/Large Business, Greater Manchester)

"I like the way it is targeted towards local businesses and sole traders. I like that idea because it's helping us out." (Micro Business, Greater Manchester)

6. CLEAN TAXI/PRIVATE HIRE/COACH/MINIBUS FUND

6.1 Views on the Clean Taxi Fund

- 6.1.1 The Clean Taxi Fund was discussed with taxi, private hire, minibus and coach operators/drivers.
- 6.1.2 Similar to the Clean Freight Fund, there was a strong perception that there would be insufficient funds to support the number of vehicles that would require upgrading using the Clean Taxi Fund. Many also found it difficult to comment based on the limited information provided to them.
- 6.1.3 There was also widespread concern that the Clean Taxi Fund would not be administered fairly, and no consensus on what a 'fair' administration system would look like. Taxi drivers/operators were unclear on how it could be administered, given that different councils have different existing requirements.
- 6.1.4 There were some concerns that the fund could be abused by multiple drivers claiming for same vehicle.

"They're very clear when it comes to the 'stick' [the CAZ], but very vague when it comes to the 'carrot' [the fund]. We need to know what is on offer." (Private Hire Driver/Operator, Greater Manchester)

6.2 Impacts

- 6.2.1 Whilst there was recognition that the fund provides financial support to upgrade to compliant vehicles, there was concern that the total fund available and the amount provided to individuals would not be enough to make a difference.
- 6.2.2 There were some concerns that the funding might attract new drivers into the business, and it was perceived fairer that the fund should be prioritised for existing drivers.

A private hire driver brought a Euro5 car last year for £29,000. Recently a dealer said he would only give him £6,000 for it but upgrading to the Euro6 model would cost £80,000.

6.3 Business Response

- 6.3.1 There was not enough information provided for business to state whether they were likely to apply for the fund.

6.4 Suggestions for Improvements

- 6.4.1 The key suggestion for improvement was the request for more detailed information on the fund. Some coach and minibus drivers/operators suggested the fund would be better used to support the council to help them continue to pay for school coach/minibus services that would otherwise have to withdraw their services if they had to pay the CAZ penalty charge.

- 6.4.2 There was some discussion about the required value of the grant to individuals, with some suggesting that at least 25% of the cost of a new vehicle would need to be provided, and others suggesting more than 25% would be required. Other suggestions for fund calculations included a percentage of the value of the non-compliant vehicle, or a percentage of the difference between the value of the old and newly purchased vehicle.

“I think it should be linked to the actual loss per transaction. In other words, make it a percentage of your loss. He’s got a Mercedes, he’s obviously going to lose more than me with an Octavia. He should get more.” (Private Hire Driver/Operator, Greater Manchester)

6.5 Level of Support

- 6.5.1 Whilst, in principle, businesses might be able to support a fund being available, there was not considered to be enough information to offer a position on support.

7. LOAN FINANCE MEASURE

7.1 Views on the Loan Finance Measure

7.1.1 The Loan Finance Measure was discussed with all business sizes and types in Greater Manchester.

7.1.2 Across most business types and sizes there was difficulty expressing views on the Loan Finance Measure without more information being provided, including the amount of money on offer, the application process, the eligibility criteria and the length of the loan. The loan was only considered to be good, in principle, on the basis that interest rates would be 0% or considerably less than offered by banks. For many, but not all, the loan was considered less preferable than a grant.

"The grant would be my first choice, and if I didn't get it, then the loan would be my second choice. It's good, because the only other alternative would be to pay upfront, which may not be possible for lots of businesses." (Micro Business, Greater Manchester)

7.2 Impacts

7.2.1 Whilst there was recognition that the loan offers a financial means to upgrade a vehicle, and that it may be particularly beneficial for those with poor credit history, there was also concern that the loan could lead businesses into debt.

"I don't think it's fair for businesses to put themselves into debt just to keep the government happy. People are already in debt, the cost of living is going up, and now you're asking people to get more in debt." (Micro Business, Greater Manchester)

7.3 Business Response

7.3.1 There was difficulty in identifying the business response to the loan, as more information was required for businesses to be clear on their response. However, amongst those who would need to upgrade vehicles or had plans to upgrade them anyway, views were split into those unlikely to take up the loan regardless of information as they would not want to get into debt (particularly smaller businesses, sole traders and taxi operators/drivers), and those that would consider taking up the loan on the following conditions if:

- The loan was interest free;
- Repayment terms were better than those commercially available;
- They were not eligible for the grant/did not receive enough grant money; and
- The loan could be used to retrofit their vehicle (taxi drivers/operators).

"If it's interest free, great, I'll go buy another new van tomorrow, cause that will save be about three grand." (Sole trader, Greater Manchester)

7.4 Suggestions for Improvements

7.4.1 In addition to more information on the loan, suggestions for improvement, or implementation included:

- It would be preferable if the loan was managed by an organisation which was not part of the local council/authority;
- There must be a way of 'getting out' of the loan if it then becomes impossible for the individual to pay it back;
- There should be long payment terms to the loan; and
- The loan should come with a buy-back scheme for their existing vehicle.

"Low interest rates and longer time to pay it off. If they were to look at two years to pay it off it's not financially viable, but if they said over five – six years and there is no interest on it, it might be more viable to look at." (Micro Business, Greater Manchester)

7.5 Level of Support

7.5.1 Whilst, in principle, businesses might be able to support the concept of the Loan Finance Measure, there was not considered to be enough information to offer a position on support. The view was also expressed that it would be preferable to not be in a position where taking out a loan is needed.

"This could be a positive for some people who have got a really old van and want a new van, but have not been able to afford to do it." (Micro Business, Greater Manchester)

"It depends. It has to be a better rate of interest than the banks are offering. Otherwise why would you do it." (Private Hire, Greater Manchester)

8. ELECTRIC VEHICLE INFRASTRUCTURE

8.1 Views on the Electric Vehicle (EV) Infrastructure Investment

8.1.1 The EV Infrastructure Investment was discussed with all business sizes and types, including those beyond the boundary of Greater Manchester.

8.1.2 Primary concerns raised across all business sizes, types and locations was that EVs are not a viable option for businesses due to:

- Their limited range (especially with a heavy load);
- The number of existing charging points;
- The time required to charge, which could also mean queuing for a charging point;
- Their higher costs to purchase.

8.1.3 A similar prevalence of thought was that the 600 proposed charging points was an insufficient number to make a difference. Additionally, some noted that if the investment did drive (non-commercial) interest in EVs then 600 charging points would lead to extensive queuing times as demand would outstrip supply.

A medium/ large business representative in Manchester sometimes drives a thousand miles on a two-day trip. He has concerns over the adaptability of EVs for heavy goods.

"I can totally see the point of electric cars – it's gonna happen. I just can't see how that technology is gonna be adapted for heavy goods. ... I can do a thousand miles on a two-day trip [currently] and how many times are you gonna have to re-charge that [a 45 tonne truck] to drive a thousand miles? It's gonna take you weeks to do that [same itinerary]." (Medium/Large Business, Greater Manchester)

"They're too expensive, and it's the down-time while you are charging." (Medium/Large Business, Greater Manchester)

"600 charging points across all ten boroughs, an extra 60 each. It's not enough." (Medium/Large Business, Greater Manchester)

"To me, 600 charging points seems like a drop in the ocean compared with how many petrol stations there are. It's something to tick a box, it looks like 'we are helping', but you look at the size of the market, and the amount of help that's offered [in this measure], they might as well not bother, it's that small." (Micro Business, Glossop)

"Let's just say everyone in Middleton gets the electric car, that's 500 odd cars for 600 charging points, that will keep Middleton charged up but what about the rest of Oldham, and Manchester?" (Private Hire Driver/Operator, Greater Manchester)

"What we're all saying is, these electric cabs that are out, are not fit for purpose." (Taxi Driver/Operator, Greater Manchester)

8.2 Impacts

8.2.1 Whilst some recognised that a move towards EVs would positively impact air quality, it was only considered a viable option for individual car users for commutes or school runs.

8.2.2 Potentially negative impacts were raised in a smaller number of groups and included:

- Environmental impacts of battery production;
- To be feasible, there would be a cost associated with installing charging points at every place of business; and
- On-street charging points would replace parking which could make drop-off deliveries harder.

8.3 Business Response

8.3.1 No business sizes or types indicated that they might consider purchasing an EV in the near future. Some pointed out that the increased cost of an EV would be the equivalent of paying the penalty charge over many years.

“The electric [version of my van], if it was top of the range it’d be like ten grand dearer, I might as well pay the charge, that would give me eight years of paying the charge.”
(Sole trader, Greater Manchester)

8.4 Suggestions for Improvements

8.4.1 Suggested improvements to the scheme were raised less frequently than concerns over viability, but included:

- Electricity used to supply the charge points should come from renewable sources;
- The scheme should extend to discounts off EVs and hybrids;
- Charging technology needs to be improved e.g. on-road charging; and
- Free or subsidised charging points should be offered at homes and businesses.

“If it’s clean energy, and it’s all coming from wind turbines then it’s fine, but if you’re burning coal to produce all this electricity then you’re just defeating the object.” (Micro Business, Greater Manchester)

8.5 Level of Support

8.5.1 Whilst the move towards EVs was generally seen positively, the investment was only considered potentially beneficial for those not using a vehicle as part of their business.

8.5.2 Some felt the level of investment was too small to make any difference and therefore did not support it.

9. SUSTAINABLE JOURNEYS

9.1 Views on the Sustainable Journeys Measure

9.1.1 The Sustainable Journeys Measure was discussed across most of the business size groups, with the exception of the sole traders.

9.1.2 There was very limited enthusiasm for the Sustainable Journeys Measure across the groups where it was discussed. Many felt that there needed to be substantial improvements to public transport before its use could be encouraged to employees. Public transport was also considered too expensive to promote to employees. It was felt that the measure would be more appropriately targeted at members of the public, such as for school runs or those taking short leisure trips.

“The infrastructure is not there to encourage it. Look at cycling, it’s awful in Manchester, there aren’t any cycle lanes. Look at London for an example of how it should be done, but they’ve got money, and we never get any money.” (Medium/Large Business, Greater Manchester)

“This drives me mad. You cannot promote something when it is that expensive.” (Micro business, Greater Manchester)

9.2 Impacts

9.2.1 No impacts were anticipated in relation to this measure, in encouraging modal shift, and hence in improving air quality.

“The infrastructure is not there to encourage it [use of sustainable modes]. Look at cycling, it’s awful in Manchester, there aren’t any cycle lanes.” (Medium/Large Business, Greater Manchester)

9.3 Business Response

9.3.1 No business response was anticipated in relation to the measure.

“I don’t think I’d be able to get my hog-roasting kit on the 192 [bus].” (Micro Business, Greater Manchester)

9.4 Suggestions for Improvements

9.4.1 To incentivise employers to encourage their employees to travel using public transport a financial incentive could be used, such as a tax break for providing employees with public transport passes.

9.5 Level of Support

- 9.5.1 There was limited support for the Sustainable Journeys Measure as it was not considered an effective way of improving air quality.

"I don't think I'd be able to get my hog-roasting kit on the 192 [bus]." (Micro Business, Greater Manchester)

10. CONCLUSIONS

10.1 Key Learning Points

- 10.1.1 Concern about the levels of air pollution in Greater Manchester is variable. Those with less or no concern are more likely to lack awareness of pollution levels (particularly outside Manchester city centre), lack awareness about the extent of its impacts, express scepticism about data and ‘scaremongering’, or, when armed with the knowledge about potential measures to reduce pollution levels, express concern about the financial impacts of the measures on their organisation. Those who express concern over pollution tend to have been made aware of pollution levels through the media, road signage and personal experience, and their concern is largely influenced by potential or actual health implications.
- 10.1.2 For many businesses, particularly once informed about the levels of pollution across Greater Manchester and the health implications, there is an acceptance that measures need to be taken to address the current situation. The concept of introducing a Clean Air Zone (CAZ), with financial assistance for businesses in the form of grants and loans, was considered a plausible way forward by some businesses, particularly those whose vehicles would be compliant by the time the charges come in, or those who could afford to update their fleet or retrofit their vehicles where applicable. Others did not support the CAZ, even alongside a package of financial measures. These were most often those least able to afford newer vehicles and thus most likely to have to pay the penalty charge, and most likely to feel the financial impact, with some reporting a risk of going out of business. These were more likely to be, but not limited to, the smallest businesses, and private hire, coach and minibus drivers and operators (including those providing social and community transport).
- 10.1.3 Many concerns about the CAZ and supporting funds and loan measures were raised by both those who overall supported the measures, and those who opposed them, including:
- The geographic extent of the CAZ;
 - The administration of the CAZ;
 - The focus on business, as opposed to domestic, vehicles;
 - The lead-in time to the CAZ (especially for long term lease holders, and those requiring specialist vehicles);
 - The lack of clarity about how money generated from the CAZ would be spent;
 - A decreased market for non-compliant vehicles and a potential increase in the price of and wait time for compliant vehicles;
 - An increase in the cost of living in the region as costs would be passed onto customers;
 - Suspicion that the compliance criteria for the CAZ would change in the future;
 - Scepticism over the financial measures (grants and loans) that would mitigate against costs to businesses, in particular whether the funds would actually be available, be administered sufficiently well, be sufficient in size, and be distributed fairly;
 - Concern about lack of clarity over eligibility and application procedures of the financial measures, and lack of alternative ideas to assist businesses such as scrappage schemes and tax breaks; and

- Concern about the lack of effectiveness of the measures in reducing pollution if small businesses exchanged non-compliant LGVs for old cars, or re-routed vehicles outside the Greater Manchester, thus displacing pollution elsewhere.

10.1.4 Electric vehicles are generally considered to be not viable for businesses due to their cost, limited range, time to re-charge, and limited number of charging points, even with 600 further points proposed. Measures relating to improving the electric vehicle infrastructure, although desirable for domestic vehicles, is therefore generally considered inappropriate for businesses. Likewise the sustainable journey measure is not considered a useful intervention for businesses without substantial investment to public transport to improve services and reduce fares.

10.2 Key Areas Highlighted More Specific to Different Business Size/Type

10.2.1 The following table outlines areas more frequently raised by specific business sizes/types.

Table 2. Key Areas Highlighted

BUSINESS SIZE/TYPE	CLEAN AIR PLAN MEASURE	COMMENT
Sole Traders	Clean Air Zone	<ul style="list-style-type: none"> ○ The CAZ was considered particularly unfair as sole traders require their van to do their job, when commuters have alternatives. ○ They also use their van for personal business, instead of owning a second vehicle and felt they would be penalised for this. ○ More likely to state that the CAZ was simply a money-making scheme. ○ Some would switch their LGV to a car and add a trailer, or switch to an estate-style car to avoid the penalty. ○ Vehicle owners tied into finance terms that went beyond the anticipated introduction of the CAZ, noted it would not be possible for them to upgrade in the timeframe. ○ Due to higher reliance on vehicle ownership and finance deals, sole traders were considered less able to adopt compliant vehicles within the proposed timeframe, and therefore be compliant, than larger businesses. ○ More likely to suggest a scrappage scheme to help with the cost of upgrading.
	Clean Freight Fund	<ul style="list-style-type: none"> ○ More likely to be concerned that the fund could only be used to upgrade to a specific vehicle. ○ Concerned that the application process may be overly onerous or time consuming and that this would act as a barrier to engagement.

BUSINESS SIZE/TYPE	CLEAN AIR PLAN MEASURE	COMMENT
		<ul style="list-style-type: none"> More likely to suggest providing other incentives for upgrade in addition to the fund, such as removing road tax on compliant vehicles.
	Loan Finance Measure	<ul style="list-style-type: none"> Less likely to take up the loan as they would not want to get into debt.
Micro Businesses	Clean Air Zone	<ul style="list-style-type: none"> The CAZ was considered particularly unfair as micro business owners require their van to do their job, when commuters have alternatives. More likely to state that the CAZ was simply a money-making scheme. Some would switch their LGV to a car and add a trailer, or switch to an estate-style car to avoid the penalty. Due to higher reliance on vehicle ownership and finance deals, smaller businesses were considered less able to adopt compliant vehicles within the proposed timeframe, and therefore be compliant, than larger businesses. More likely to suggest a scrappage scheme to help with the cost of upgrading.
	Clean Freight Fund	<ul style="list-style-type: none"> There were concerns that the application process may be overly onerous or time consuming and that this would act as a barrier to engagement.
	Loan Finance Measure	<ul style="list-style-type: none"> Less likely to take up the loan as they would not want to get into debt.
Small Businesses	Clean Air Zone	<ul style="list-style-type: none"> Due to higher reliance on vehicle ownership and finance deals, smaller businesses were considered less able to adopt compliant vehicles within the proposed timeframe, and therefore be compliant, than larger businesses.
	Clean Freight Fund	<ul style="list-style-type: none"> There were concerns that the application process may be overly onerous or time consuming and that this would act as a barrier to engagement.
	Loan Finance Measure	<ul style="list-style-type: none"> Less likely to take up the loan as they would not want to get into debt.
Medium/Large Businesses	Clean Air Zone	<ul style="list-style-type: none"> Larger businesses, operating HGVs, noted the delay in ordering an HGV and receiving it (approximately a year), which may mean that some are in the process

BUSINESS SIZE/TYPE	CLEAN AIR PLAN MEASURE	COMMENT
		<p>of upgrading their fleet, but penalised by manufacturing delays that could be exacerbated due to increased demand.</p> <ul style="list-style-type: none"> More likely to state that the CAZ would simply move air pollution to different areas, either through fleet circulation or through alternative routes being undertaken to avoid entering Greater Manchester. Their business response was more likely to be moving their fleet around to ensure that their compliant vehicles operated in Greater Manchester and non-compliant vehicles operated elsewhere.
	Clean Freight Fund	<ul style="list-style-type: none"> Medium/large businesses were more likely to suggest extending the grant to cover other demonstrable 'clean air' initiatives, not just vehicle upgrades.
	Clean Air Zone	<ul style="list-style-type: none"> Taxi drivers/operators noted that whilst their preference may be to pass on the cost of the penalty charge to customers, they did not have the ability to do this, and that the additional cost might put customers off using their service. Taxi, private hire and coach/minibus drivers/operators, both within and on the outskirts of Greater Manchester, anticipated that they might need to leave the trade, as it would become financially unviable for them to continue, as they could not afford to pay the charge nor upgrade their vehicles. This would mean the withdrawal of some social/ community transport services provided to public sector clients. Retrofitting the vehicle to become compliant was the most frequently anticipated business response to the CAZ by taxis drivers/operators. Taxi and private hire drivers/operators were more likely to suggest that CAZ compliance should be tested through individual car emissions, rather than age of car. Taxi drivers/operators were more likely to suggest wanting the ability to lease compliant taxis from the council.
Taxi and Private Hire Vehicle Drivers/Operators and Coach/Minibus Operators	Loan Finance Measure	<ul style="list-style-type: none"> They were less likely to take up the loan as they would not want to get into debt. They would consider the loan if it could be used to retrofit their vehicle.

10.3 Recommendations for further research

10.3.1 This research suggests that the proposed measures, as presented, could lead to significant financial implications, particularly for smaller businesses and local transport operators/drivers. Additional insight and understanding of the nature and level of risk, by each niche sub-sector, would give the Clean Air Project greater confidence in their final plan.

10.3.2 We suggest further insight from the following groups would be beneficial to better understand the potential negative impacts of a CAZ on businesses in Greater Manchester, and how these could be mitigated.

Table 3. Recommendations for further research

INFORMATION REQUIRED	TYPE OF ORGANISATION	APPROACH
Identifying measures to assist at risk businesses <ul style="list-style-type: none"> Further potential impact of paying penalty fares; Potential mitigation measures; Likely impact of the mitigation measures. 	Businesses in Greater Manchester whose vehicle replacement strategy will not lead to compliant vehicles by 2021/23, and who identify as being at risk of going out of businesses if penalty charges are introduced.	In depth case studies (spending up to a day with each business to fully understand their operations).
	Small minibus and coach companies providing community services (e.g. for schools, old peoples' homes), who identify as at risk of going out of businesses if penalty charges are introduced.	In depth telephone interviews with fleet managers or equivalent.
Understanding vehicle replacement strategies <ul style="list-style-type: none"> Vehicle replacement strategies; 	National operators with large fleets in Greater Manchester (e.g. Royal Mail, Yodel, Eddie Stobart).	

INFORMATION REQUIRED	TYPE OF ORGANISATION	APPROACH
<ul style="list-style-type: none"> Potential for bringing forwards vehicle changes; Impact of bringing forwards vehicle changes. 	Small companies in Greater Manchester whose business is purely delivery-based (e.g. Red Rocket, Xen Couriers, Speedy Same Day Courier).	
<p>Message development and testing</p> <ul style="list-style-type: none"> Developing the most receptive messaging on the CAZ and mitigation measures; Understanding the impact on acceptability of different messages relating to CAZ 	Representative sample of businesses in Greater Manchester.	<p>Qualitative message development in small group discussions.</p> <p>Quantitative telephone survey with a representative sample of businesses in Greater Manchester (quotas on sector, size and district).</p>

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