



The City of Edinburgh Council

Low Emission Zone

Awareness and Understanding Wave  
Three

Final Report

April 2024





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# Summary and conclusions

## Method and sample

Fieldwork was undertaken from 4<sup>th</sup> and 24<sup>th</sup> March 2024. A target sample of 636 interviews was achieved. This comprised the following:

- 101 interviews with LEZ residents (those living within the LEZ boundary)
- 276 interviews with residents of the wider Edinburgh Council area (living outwith the LEZ boundary) who may travel into or through the LEZ for work, leisure or some other reason
- 259 interviews with visitors / commuters to the city centre from elsewhere in Scotland who may travel into the LEZ
- All residents and visitors to Edinburgh owned or had access to a vehicle for their personal use
- All residents and visitors to Edinburgh owned or had access to a vehicle for their personal use
- Care was taken to ensure a close match with the sample profiles across waves one and two to optimise comparability of data year on year
- A table of interviewer locations can be found in the appendix.

## Travel behaviour

As with waves one and two the majority of those living outwith the city centre claimed to visit for leisure, shopping or some other kind of cultural or family event. However, there is a significant reduction in the number of people doing so this wave. This could be a reflection of the current economic situation and ongoing cost of living squeeze.

The second most mentioned reason was work followed by appointments such as school drops or medical. The pattern of reasons to visit was similar to the previous waves. There is significantly more activity in 2024 compared to 2022 across all reasons for visiting the city.

The pattern of activity for city centre residents was similar to previous waves. When asked, as well as living in the city centre which, if any, of the following do you do within the city centre boundary the majority (88%) claimed to visit for leisure, shopping or some other kind of cultural or family event. The second most mentioned reason was set appointments such as school drop-offs or medical appointments however, significantly fewer people gave this reason this wave. The third most often mentioned reason was work.

The days that people claimed to travel to the city centre are very similar to the previous wave. There were significantly fewer people saying they travel at weekends-only in 2024 compared to 2022.

Significantly fewer respondents frequently walked in 2024 compared to 2023; otherwise the patterns of travel were consistent with 2023.

## Awareness and understanding

As with the previous wave there was a significant increase in the number of those who claimed to be informed about the Low Emission Zone for Edinburgh City Centre and a significant increase in the number of those who claimed to be extremely well informed.

More of those aged over thirty-four years old than younger adults claimed to be informed. Those who live in Edinburgh were more informed than those living in other parts of Scotland. Those in favour of the LEZ and those who drove electric and hybrid cars were also more likely to be informed.

Over half of the sample claimed to be aware of the LEZ boundary which is similar to 2023 but significantly more than in 2022. Those aged over 34, men, those who travel into the city centre every day, city centre residents and Edinburgh residents were more likely to claim to be informed about the boundary. Drivers of electric and hybrid cars were more informed which is likely to be a result of their investment in environmentally positive behaviours.

For the second year running this wave saw significant increases in awareness of operational issues such as not needing an electric car, contributing to air quality, operating 24 hours a day, automatic number plate recognition, the grace period and access for blue badge holder and motorbikes. Those who tended to be better informed were: men, those aged over 34, in favour of the LEZ scheme, travel everyday in Edinburgh, were residents of Edinburgh and were drivers of electric and hybrid vehicles. These groups are consistent with wave two.

Once more we saw a significant increase in awareness and understanding of penalty charges, nonetheless it remains the issue respondents were least informed about. There was an increase in those who believe it will operate on the basis of a daily entry charge for non-compliant vehicles with just over a fifth believing this to be the case.

## Support for LEZ

The majority of respondents remain in favour of the scheme, however we saw last wave that as the enforcement date grows closer, support for the scheme has declined. A similar number were in favour of the scheme this wave (wave one 66%, wave two 58%, wave three 56%). Just over a quarter (26%) were opposed to the scheme, which is similar to the last wave.

The profile of those in favour is very similar to wave one and two in that women, higher SEGs and Edinburgh city residents, drivers of electric, hybrid and petrol car drivers were more in favour than drivers of diesel cars. There were fewer differences across age groups this wave with younger people becoming closer in their thinking to older age groups and not as opposed to LEZ.

Respondents were asked to rate their awareness of the impacts of the LEZ scheme. They were then asked to rank the importance of those issues. Issues fell in the same order of awareness across the three waves of research. The order of importance matched wave two and we saw no significant differences in the ratings of importance this wave compared to wave two.

Making the city centre more attractive, encouraging use of public transport and reduced air pollution being the three top issues in terms of awareness. The issues fell in the same order to the importance, with the exception of reduced air pollution, which was ranked higher in importance than awareness.

A significant proportion of drivers (75-80%) in Edinburgh considered the following topics important for people in Edinburgh:

- Protecting public health
- Making the city centre more attractive by making it more pedestrian focused
- Encouraging people to consider public transport and active travel
- Encouraging the use of cleaner vehicles benefits all the areas they travel through not just the LEZ

- Reducing carbon emissions to address climate change target

## Compliance

The majority considered their vehicles to definitely meet the LEZ's minimum standards required. This is a significant drop from wave one and in line with wave two and is likely to be the result of drivers being better educated about standards as the date for compliance becomes closer.

In previous waves there were significant differences across SEG, travel behaviours and areas of residence when it came to compliance. This wave there is a balance of compliance with differences occurring only in those who are informed about LEZ for Edinburgh and its boundaries.

There are no significant differences in fuel types of vehicles this wave.

Of those whose cars met the standard two in five claimed to have replaced their car in the last two years. This is in line with wave two. When asked why they had changed their cars, the most frequently mentioned reason was that vehicles are changed regularly anyway. Just over a quarter said they wanted to have a more efficient vehicle and one in five wanted a car that met the new standards, which is a significant increase on wave one and in line with wave two. This suggests the scheme encouraged people to accelerate the uptake of lower emission vehicles in 2023 but this has now slowed down.

## Behaviour change

In all waves respondents were asked what types of actions, if any, they thought they might take as a consequence of the implementation of the LEZ. They could select more than one action, where relevant. This wave respondents were also asked which of the following actions they have already done as a consequence of the introduction of LEZ in Edinburgh.

The most popular actions taken in response to the introduction of LEZ were to:

- Use public transport, a third said they had done this
- One fifth said they had walked more
- One fifth had used park and ride
- One in ten said they upgraded their vehicle
- Just over one in fourteen said they had avoided LEZ area
- And nearly one in twenty said they had cycled more

While we see very little changes in planned actions there are significant differences when comparing planned actions to actions taken with more people saying they plan to act than have actually taken action.

## Conclusions

There are significant increases in the number who claim to be informed of the LEZ. For the second year running this wave saw significant increases in awareness of operational issues. This all points to a very successful communications campaign over the last two years.

There are however no increases this wave in understanding of the boundary. Awareness is not the same across all groups and those who live out with Edinburgh, younger people and those less in favour of the LEZ and those who do not travel into the city centre frequently tend to be the groups who are less well informed. Ways to inform these groups should be given more consideration.

Findings suggest that the scheme encouraged people to accelerate the uptake of lower emission vehicles in 2023 but this has now slowed down. There is also evidence to suggest the scheme is encouraging more use of public transport, more active travel and a greater use of park and ride. Few would avoid the city centre as a result of LEZ which could support the idea that the majority are in favour or indicate that they have no alternative choice.

As with last wave, findings suggest there is yet more work to do in making clear the difference between entry and penalty charges in all communications. There remains a need to build awareness of the amount for penalty charges and that the fine doubles for repeated breaches.

# Introduction

## Background

Low Emissions Zones (LEZs) are designed to improve air quality by reducing harmful emissions from road traffic. Driving in a low emission zone is restricted for the most polluting vehicles, which in turn improves the air quality and helps protect health both within and beyond the zone.

In May 2022 local authorities, in partnership with the Scottish Government introduced LEZs in Glasgow, Edinburgh, Dundee and Aberdeen which are designed to discourage non-compliant vehicles from driving within the zones, and penalty charges will be issued for those that do not comply. This differs to other restrictions, such as England's Clean Air Zones and London's LEZ that allow entry to their zones if a daily access charge is paid by drivers.

To help those who may have the most difficulty in adapting to the LEZs, Transport Scotland provided funds including – the [Low Emission Zone Support Fund](#) and the [Retrofit Fund](#) – which are delivered by Energy Saving Trust (EST).

The Low Emission Support Fund is available to low-income households and micro-businesses and is there to help recycle older, more polluting vehicles to reduce harmful emissions. The Retrofit Fund supports micro-businesses to upgrade their vehicles to the minimum standards required to be compliant with the LEZs. Grants were available to support the cost of retrofitting engines or exhausts on taxis, vans and HGVs to Euro 6/VI standard. [Bus Emissions Abatement Retrofit](#) (BEAR) grant funding supports bus operators with engine and exhaust retrofitting.

The Edinburgh LEZ was introduced on 31 May 2022. There was a two-year grace period before any penalty charges (fines) are issued which is shortly due to come to an end and, from 1 June 2024 enforcement in Edinburgh will begin. Transport Scotland has supported local communications by running a national campaign to raise awareness of the benefits of LEZs.

In May 2022 the City of Edinburgh Council undertook research to help it understand views towards the LEZ from individuals driving in Edinburgh. Findings from the research provided a baseline measure of understanding and awareness. Wave two of this research was commissioned in March 2023 and was designed to gauge any changes of opinion. Wave three was commissioned in March 2024 to track any changes in understanding and awareness.

Insights from each wave of research will help shape future local engagement and communications campaigns. In addition, the research will inform the developing monitoring and evaluation approach of its LEZ locally and best practice/findings will be shared with Scotland's other LEZ cities, nationally. Finally, the research will help to inform local policy development in relation to LEZ structures, and to inform the development of potential projects (e.g. changes to city centre networks, road user charging etc.). The detailed objectives of this research were to gain a current measurement of the following:

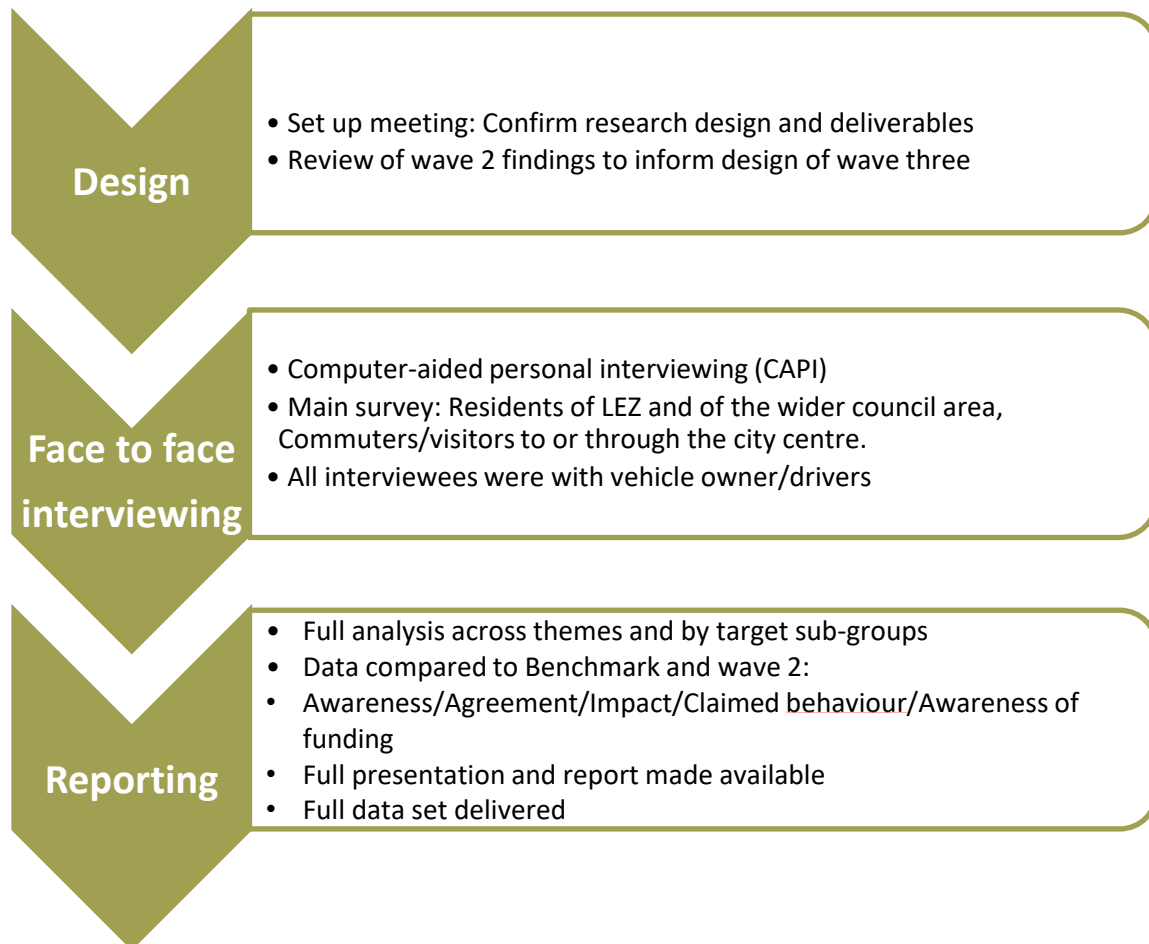
- Awareness/understanding of scheme
- Agreement with proposed Scheme
- Awareness/understanding of the impact and benefits
- Impact on vehicles owners/understanding if their vehicles meet the minimum standards
- Behaviour change because of LEZ.

Wherever possible findings have been compared to previous waves of research.

# Method

The figure below summarises the survey approach.

**Figure 1**



## ***Inception meeting***

The first task was a detailed inception meeting, attended by Sarah Ainsworth and Valerie Strachan from Progressive, and George King and Jacqueline Allan from the City of Edinburgh Council ('the Council'). The meeting allowed us to review and refine the research methodology leaning on our understanding from the benchmark research in 2022 and the following wave in 2023. Key points discussed at the meeting included:

- A review of the proposed method and sampling approach
- Identification and refinement of practical matters, such as the administration of the survey
- Discussion of not including a boost sample with van drivers
- Discussion of the questionnaires and how they should be refined
- Agreement of timings and reporting requirements



## Fieldwork

### *Sample*

A sample of 636 interviews was achieved. This comprised the following:

- 101 interviews with LEZ residents (those living within the LEZ boundary)
- 276 interviews with residents of the wider Edinburgh Council area (living outwith the LEZ boundary) who may travel into or through the LEZ for work, leisure or some other reason
- 259 interviews with visitors / commuters to the city centre from elsewhere in Scotland who may travel into the LEZ
- All residents and visitors to Edinburgh owned or had access to a vehicle for their personal use
- A table of interviewer locations can be found in the appendix.

Quota controls guided the sample selection for this study. This means that statistically precise margins of error or significance testing are not appropriate, as the sampling approach non-probability. The margins of error outlined below are therefore indicative, based on an equivalent probability sample.

The overall sample size of 636 provides a dataset with an approximate margin of error of between  $\pm 0.77\%$  and  $\pm 3.89\%$ , calculated at the 95% confidence level (market research industry standard).

We are confident that the achieved sample provides a good representation of the target population.

### *Face-to-face interviewing*

All interviews were undertaken by Progressive's team of field interviewers face-to-face on-street using Computer Aided Personal Interviewing (CAPI). They were supervised throughout the process by our regional supervisor and our field managers. All interviews were undertaken under our strict quality control procedures – in accordance with ISO 20252. To maintain consistency of approach all interviewers were briefed to use the sample points set for the benchmark survey of 2022 and repeated in wave 2.

Fieldwork ran from the 4<sup>th</sup> and 24<sup>th</sup> March 2024. Throughout fieldwork we conducted regular checks on the data to ensure a consistently high standard of quality across our interviewing team. All interviewers' work was individually checked and if there were any concerns, interviewers were to be contacted to be provided further guidance and/or training. There were no concerns raised during this research exercise.

All interviewers' work was also subject to back-checking, whereby a minimum of 10% of respondents were contacted by telephone or emailed by our head office fieldwork team to check data accuracy for key questions and to ensure that the respondent was satisfied that the survey was conducted professionally and courteously. There were no concerns raised during this research exercise.

### *Questionnaire design*

The questionnaire was developed in conjunction with the client. The average time for the main sample of the general public to complete the survey was 13 minutes.

## Data processing and analysis

Our data processing department undertook a number of quality checks on the data to ensure its validity and integrity. Responses were checked to ensure that interviewer and location were

identifiable. Any errors or omissions detected at this stage were referred back to the field department, who re-contacted interviewers to check. No errors were identified at this stage.

A computer edit of the data prior to analysis involved both range and inter-field checks. Any further inconsistencies identified at this stage were investigated by reference back to the raw data on the questionnaire.

Where 'other' type questions were used, the responses to these were checked against the parent question for possible up-coding.

Responses to open-ended questions were sense-checked and grouped using a code-frame and analysed by theme. Progressive's data processing and analysis programme (SNAP) was set up in order to provide the client with useable and comprehensive data. Cross-breaks replicated previous waves in order to provide comparative analysis on previous waves.

# Sample

## Main sample profile

For the main sample of residents and visitors to Edinburgh quota controls were used to guide the selection on place of residence with the aim of achieving a sub-sample of 100 residents living within the LEZ zone, 250 living in Edinburgh but outwith the zone and 250 visitors and commuters to the city centre. We controlled the sample to ensure an approximate even mix of gender. Care was also taken to ensure the sample profiles were a close match across waves one and two, to optimise comparability of data year on year. The following samples were achieved which slightly exceeded the initial aims. See tables 1 and 2.

**Table 1. Place of residence general population**

Residence	Wave 1	%	Wave 2	%	Wave 3	%
Edinburgh	376	59%	377	59%	377	59%
Clackmannanshire	5	1%	1	0%	4	1%
East Lothian	16	3%	32	5%	31	5%
Falkirk	17	3%	14	2%	23	4%
Fife	22	3%	30	5%	32	5%
Midlothian	38	6%	36	6%	26	4%
West Lothian	73	11%	68	11%	62	10%
Elsewhere in Scotland	88	14%	84	13%	81	13%
<b>Base</b>	<b>635</b>	<b>100%</b>	<b>642</b>	<b>100%</b>	<b>636</b>	<b>100%</b>

The sample profiles across the three waves are very similar in terms of place of residence. Those from elsewhere in Scotland came from Scottish Borders (16%) South Lanarkshire (15%) Glasgow city (14%) Dundee (12%) North Lanarkshire (11%) Stirling (7%) Perth and Kinross (7%). Other local authorities included Dumfries and Galloway Aberdeen, East Dunbartonshire, South Ayrshire, East Ayrshire, Highland, Renfrewshire, East Renfrewshire, Shetland Islands, Angus, (each represents 2% or less of the sample).

As with wave one, approximately a third (27%) of those living in Edinburgh were residents of the city centre.

**Table 2. Place of residence in Edinburgh general population**

Residence (Edinburgh residence)	Wave 1	%	Wave 2	%	Wave 3	%
I live in Edinburgh City Centre	114	30%	112	30%	101	27%
I live in another part of Edinburgh	262	70%	265	70%	276	73%
<b>Base</b>	<b>376</b>	<b>100%</b>	<b>377</b>	<b>100%</b>	<b>377</b>	<b>100%</b>

Age had loose quota controls imposed to ensure an approximate even spread across the sample. No quotas were placed on socio-economic groups (SEG). We have grouped respondents by higher SEG ABC1 and lower SEG C2DE and “prefer not to say” (PNTS). See tables 3 and 4.

**Table 3. Age general population**




Age	Wave 1	%	Wave 2	%	Wave 3	%
18-34	200	31%	165	26%	160	25%
35-54	221	35%	239	37%	254	40%
55-74	204	32%	221	34%	200	31%
75+	10	2%	17	3%	22	3%
<b>Base</b>	<b>635</b>	<b>100%</b>	<b>642</b>	<b>100%</b>	<b>636</b>	<b>100%</b>


**Table 4. SEG general population**

SEG	Wave 1	%	Wave 2	%	Wave 3	%
ABC1	433	68%	414	64%	422	66%
C2DE	198	31%	223	35%	208	33%
PNTS	4	1%	5	1%	6	1%
<b>Base</b>	<b>635</b>	<b>100%</b>	<b>642</b>	<b>100%</b>	<b>636</b>	<b>100%</b>

# Main findings

This section of the document reports on findings from the general population and Van drivers. Where possible we have compared results from wave one in 2022 to wave two 2023 and wave 3 in 2024 for the.

Where significant differences occur they have been marked with a green arrow to indicate an increase between waves on tables; or with a green circle to indicate increases and a red circle to indicate decreases within the sample on charts and tables, and between waves on tables.   

Where base sizes are low a caution sign is shown. **These results must be read with caution.** 

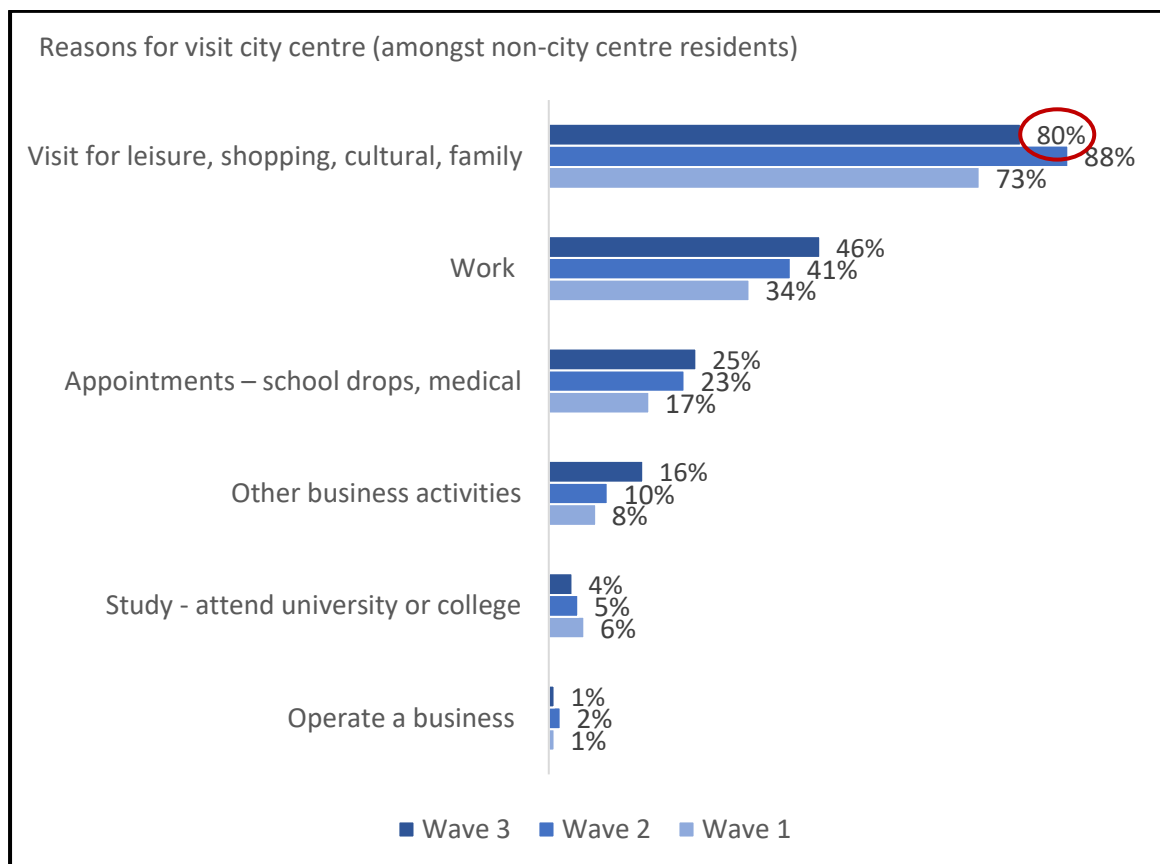
# Travel behaviour

## *Reason for travel into the city centre general population*

Those who live outwith Edinburgh city centre were asked why they visit the city centre. As with previous waves the majority claimed to visit for leisure, shopping or some other kind of cultural or family event. However, there is a significant reduction in the number of people doing so this wave. This could be a reflection of the current economic situation and ongoing cost of living squeeze.

The second most mentioned reason was work followed by appointments such as school drops or medical. The pattern of reasons to visit was similar to the previous waves. There is significantly more activity in 2024 compared to 2022 across all reasons for visiting the city. See chart 1.

**Chart 1. What city centre visitors do, general population**



SQ5: Which of the following describes why you visit Edinburgh city centre?

Base (Scottish residents living outwith Edinburgh city centre): **Wave 1: 521, Wave 2: 530, Wave 3: 535**

Unsurprisingly those who travel at weekends only (8%) were less likely than those who travel every day (87%) or weekday/part week (80%) to visit for work or study.

The profile of those who were more likely to visit Edinburgh city centre for work and study was consistent with previous waves:

- Residents of Edinburgh (62%) more likely than residents of the Rest of Scotland (46%)

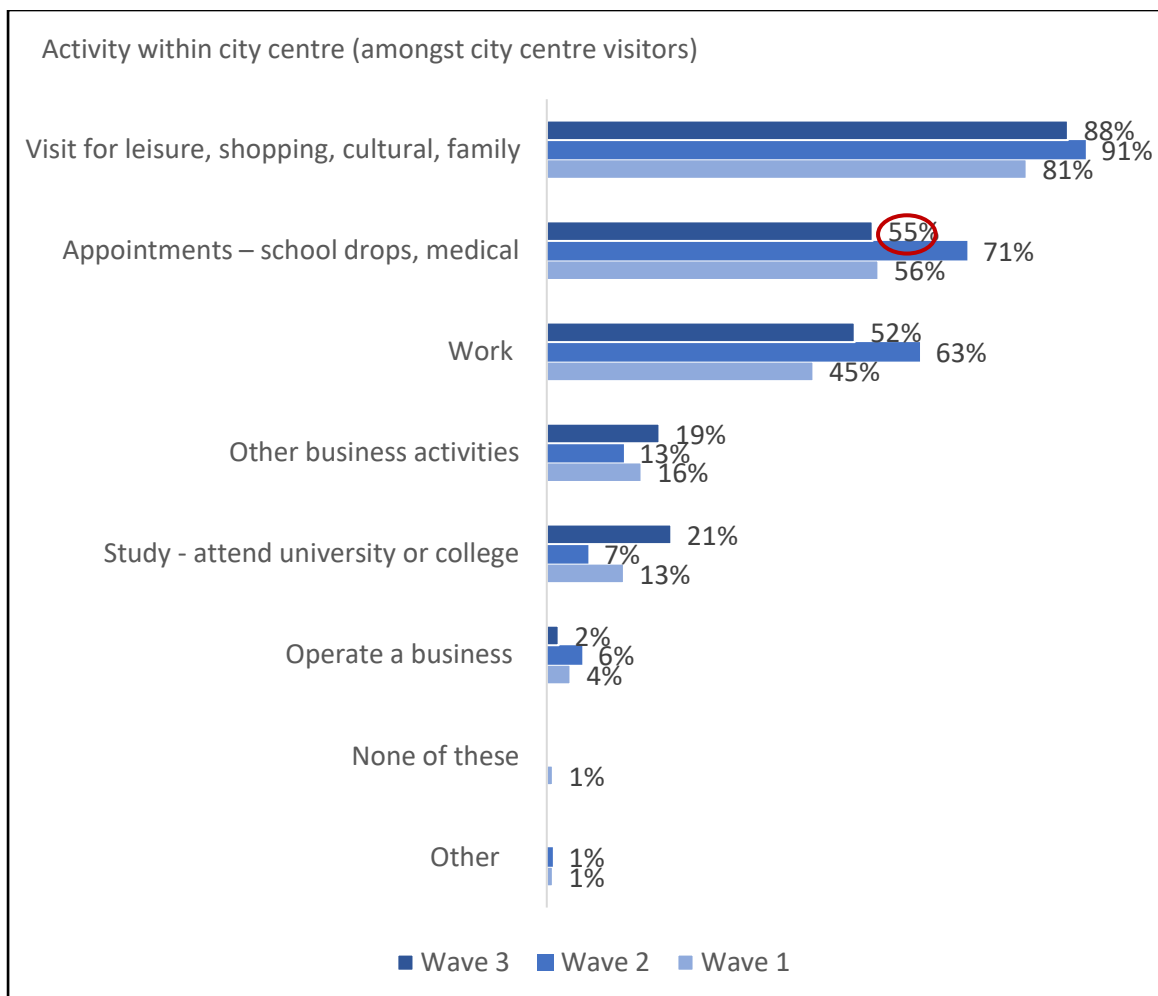
- Men more likely than women (60% vs 47%)
- Those aged 18-54 more likely than those aged 55 -74 (66% vs 32%)
- ABC1s more likely than C2DEs (59% vs 45%)

Those who visit for leisure were:

- Women (86%) vs men (74%)
- In favour (83%) vs Opposed (73%)
- Residents of Edinburgh (85%) vs residents of the Rest of Scotland (74%)

The pattern of activity for city centre residents was similar to previous waves. When asked as well as living in the city centre which, if any, of the following do you do within the city centre boundary the majority (88%) claimed to visit for leisure, shopping or some other kind of cultural or family event. The second most mentioned reason was set appointments such as school drop-offs or medical appointments however, significantly fewer people came for this reason this wave. The third most often mentioned reason was for work. See chart 2.

**Chart 2. What city centre residents do, general population**



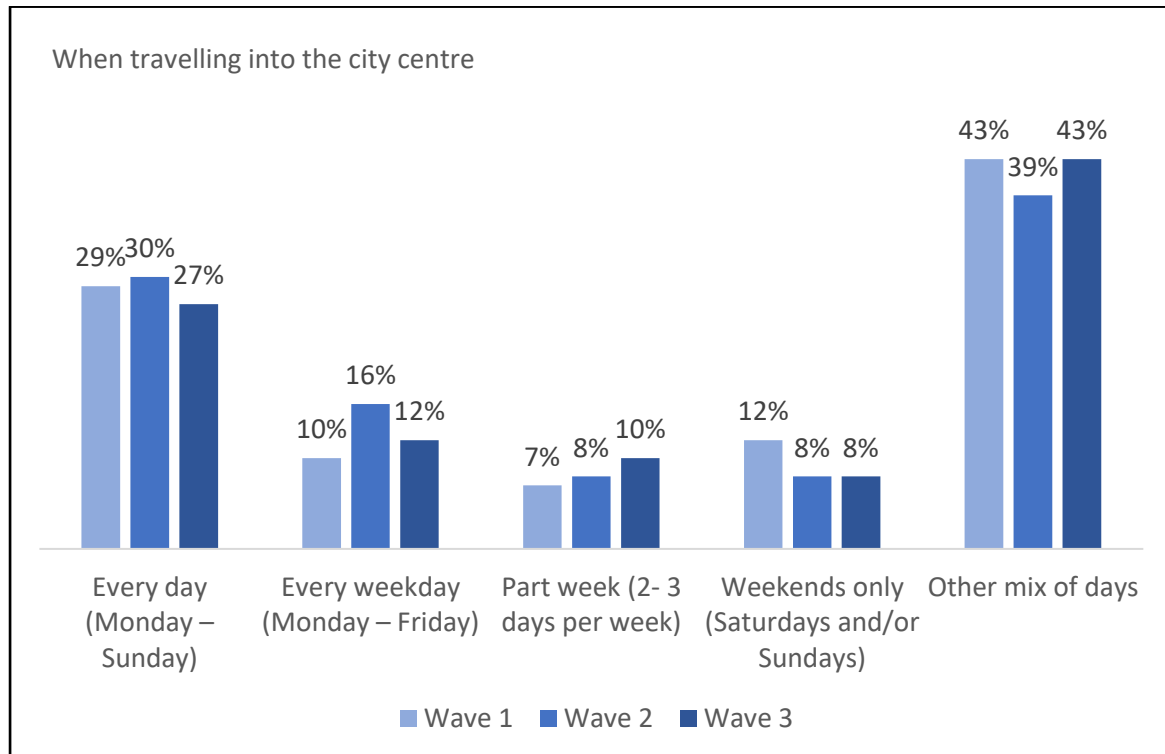
SQ6: As well as living in the city centre which, if any, of the following do you do within the city centre boundary?  
**Base (Scottish residents living in Edinburgh city centre): Wave 1: 114, Wave 2: 112, Wave 3: 101**

**Frequency and mode of travel into the city centre, general population**

When asked “when do you normally travel to, from or around the city centre”, just under a third (27%) said every day and approximately one in eight (12%) said every weekday; this was in line with wave

one. As with wave 2 just under a tenth (8%) said weekends only which is significantly less than wave 1 and may be a reflection of the continuing cost of living crisis. The most common response was two fifths (43%) said ‘another mix of days’. See chart 3.

**Chart 3. Normal travel days, general population**



Q2. When do you normally tend to travel to, from or around the city centre, for personal and/or business reasons? **Base: Wave 1: 635, Wave 2: 642, Wave 3: 636**

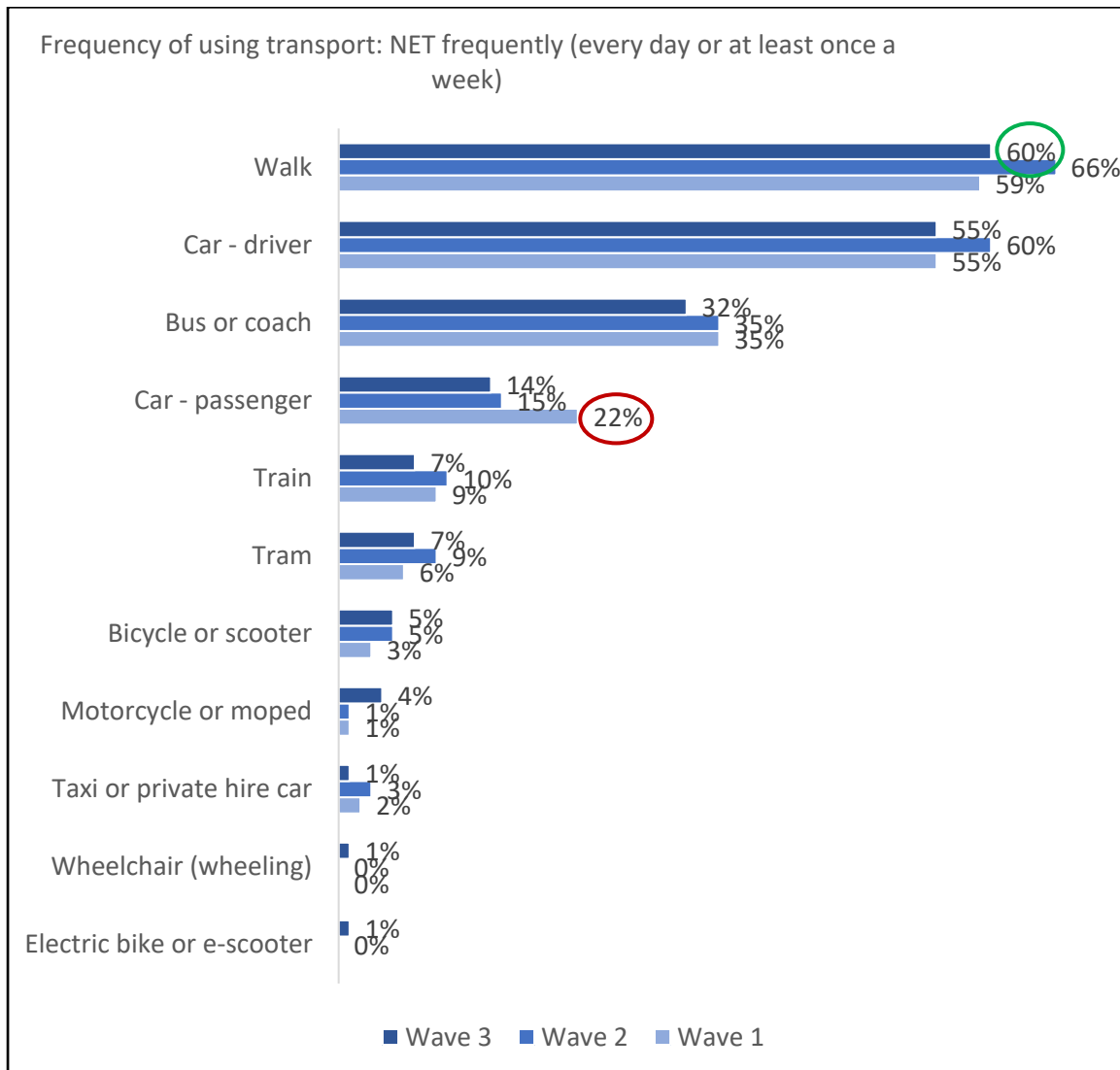
As with previous waves those who live in the city centre were more likely to travel around the city centre every day than those who live in another part of Edinburgh (62% vs 31%). Edinburgh residents were more likely than non-Edinburgh residents (40% vs 8%) to travel around the city centre every day. Those in the youngest age group (aged 18-34 = 39%) were more likely to travel around the city centre everyday compared to (35-74 = 23%). As with waves one and two those more likely to travel weekends only were more likely to be non-Edinburgh residents than Edinburgh residents (13% vs 4%).

**Frequency of mode, general population**

Members of the general population were asked how often they use various modes of travel. Walking remained the mode most frequently used followed by car driving, bus or coach and car as a passenger. Significantly fewer respondents frequently walked this wave compared to wave two otherwise the patterns of travel were consistent with wave 2. Frequent travel by car as a passenger remains significantly lower than it was at wave 1. See chart 4



**Chart 4. Frequent travel mode, general population**



Q1. Currently how often do you use the following modes of transport to travel around, or to and from Edinburgh’s city centre, for personal and/or business reasons? **Base: Wave 1: 635, Wave 2: 642 Wave 3: 636**

Those who frequently walk around, to or from the city centre were more likely to be based in Edinburgh and its city centre, in SEG ABC1 and drive an all-electric car. Those who frequently drive a car were more likely to be in SEG ABC1, opposed to LEZ, live in Edinburgh and its city centre and use an electric car. Frequent active travel was more likely in those who live in or travel to everyday the city centre. Frequent use of public transport was more likely in women . See table 5.

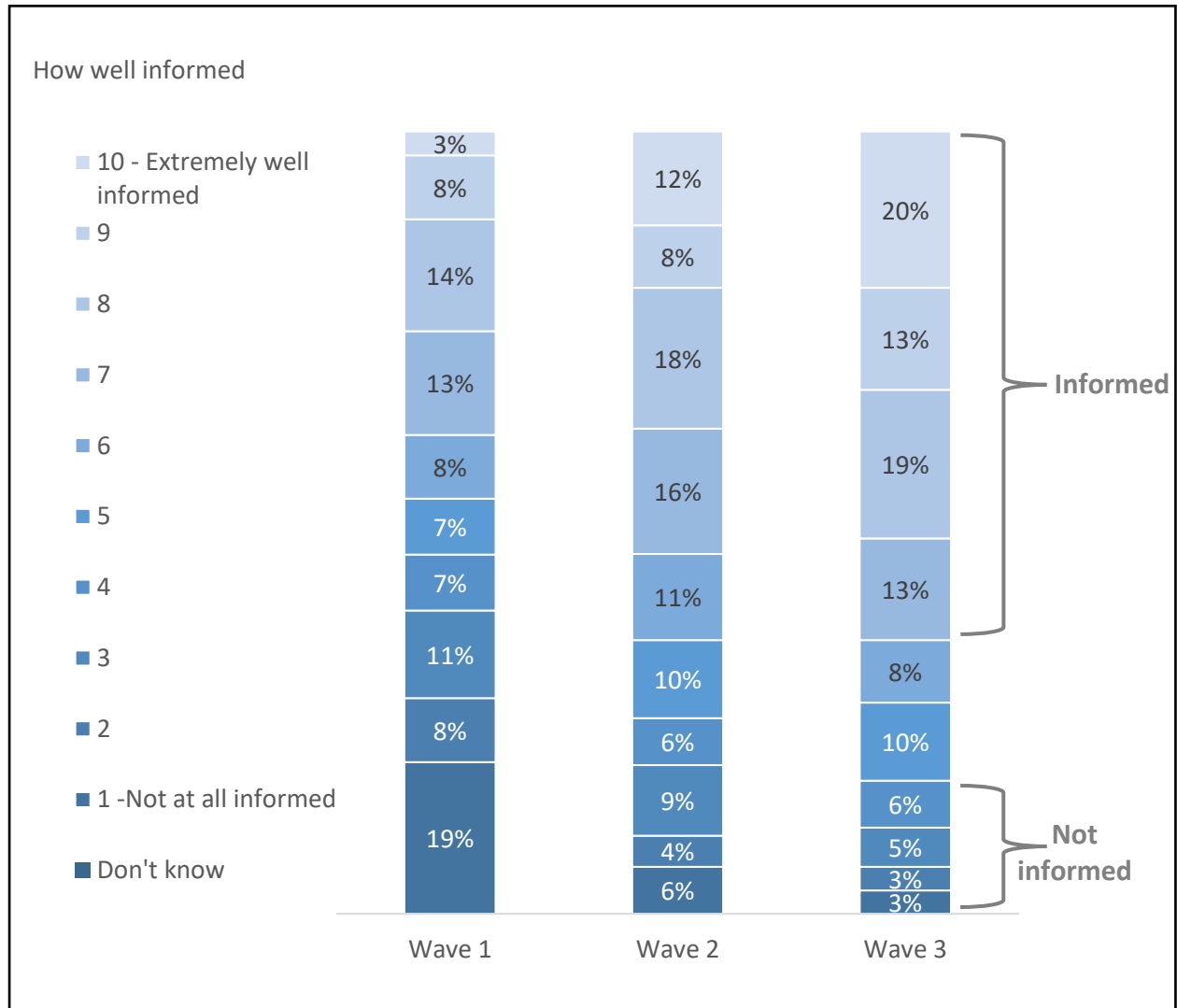
**Table 5. Mode of travel for frequent travellers into the city centre, general population**

NET: Frequently	Wave 1	Wave 2	Wave 3
Active travel (walk or cycle)	59%	89%	80%
Car (driver or passenger) / motorcycle	57%	84%	82%
Public transport (bus, tram, train, taxi)	42%	57%	52%

# Awareness and understanding

When asked how well informed about the Low Emission Zone for Edinburgh City Centre would you say you were before this interview today over half (65%) said they were informed. Awareness continues to grow as this is a significant increase on wave two when 54% of the sample were informed. See chart 5.

**Chart 5. Informed about LEZ, general population**



Q3. Tell me, how well informed about the Low Emission Zone for Edinburgh City Centre would you say you were before this interview today? **Base: Wave 1: 635, Wave 2: 642, Wave 3: 636**

Those who tended to be more informed were as follows:

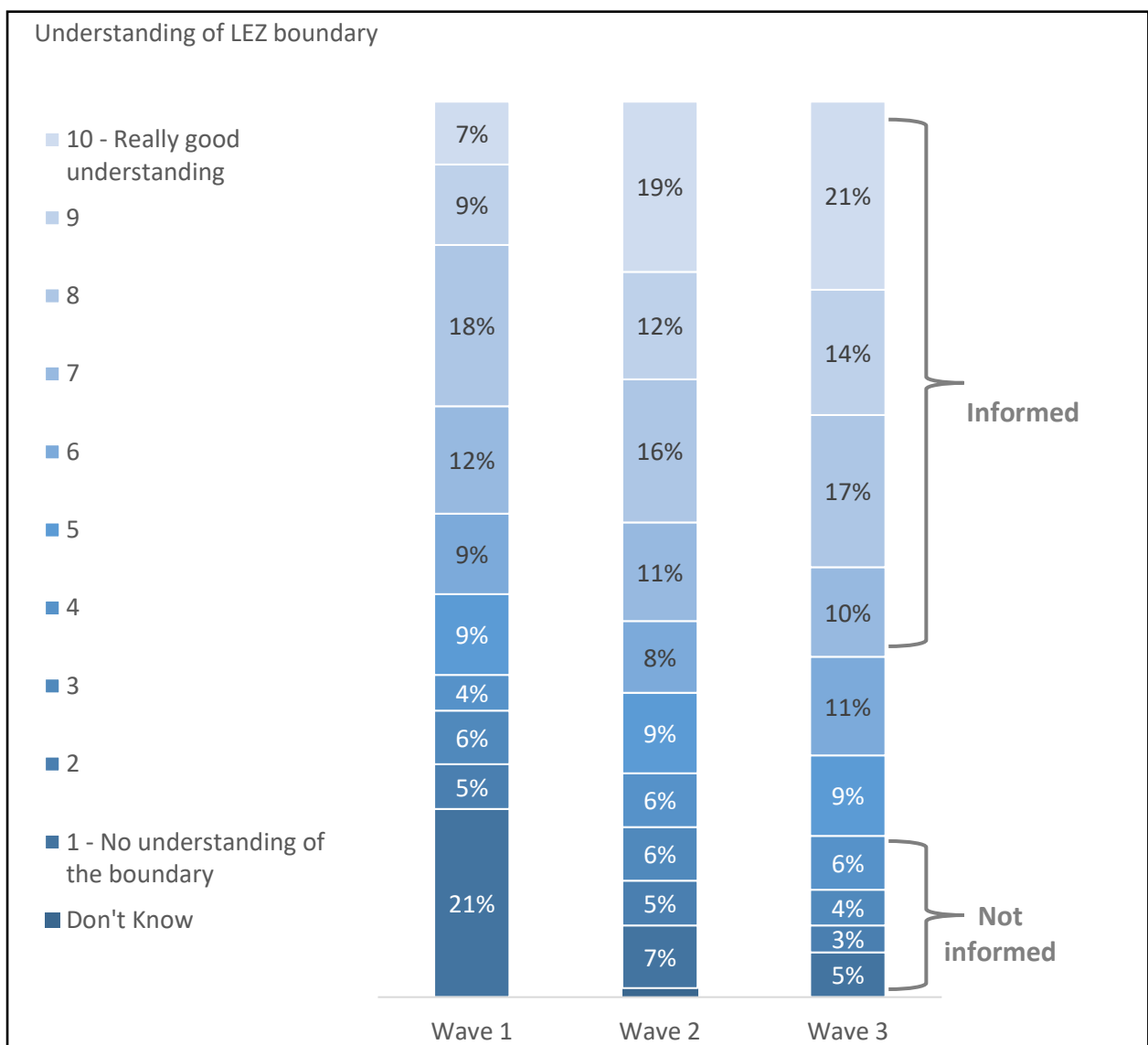
- Men (69%) vs women (60%)
- Over the age of 34 (18 -34 (50%), Rest 69%)
- Those who are in favour of LEZ (74%) vs Opposed (65%)
- Those who live in the Edinburgh vs other parts of Scotland (74% vs 52%)
- Those who drive electric and hybrid cars (81%) vs petrol and diesel (60%)

NET: Informed	Wave 1	Wave 2	Wave 3
Informed (7~10)	39%	54%	65%
N/N (5~6)	16%	21%	18%
Not informed (1~4)	45%	25%	17%

### Understanding of boundary

Respondents were asked about how good their general understanding was of the Edinburgh LEZ boundary before the interview had taken place. Over half (62%) claimed to be informed, which is a significant increase compared to wave one and in line with wave 2. See chart 6.

**Chart 6. Informed about LEZ boundary, general population**



Q4. This map shows the boundary of the LEZ. It will cover Edinburgh City Centre. How good was your understanding of the Edinburgh LEZ boundary before this interview today? **Base: Wave 1: 635, Wave 2: 642, Wave 3: 636**

NET: Understanding	Wave 1	Wave 2	Wave 3
Understanding (7~10)	46%	59%	62%
N/N (5~6)	17%	17%	19%
No understanding (1~4)	36%	24%	19%










The profile of those who tended to be more informed was very similar to previous waves and groups were as follows:

- Men more so than women (68% vs 56%)
- Those aged over 34 47% vs average of 71% for other age groups.
- Those who are in favour ( 73%) vs Opposed ( 60%)
- Those who travel every day were more informed than, weekends, and other mix of days travellers (71% vs 41% vs 59%)
- Those who live in Edinburgh were more informed than those in other parts of Scotland (73% vs 46%)
- City centre residents showed more understanding than those living in other parts of Edinburgh (81% vs 70%)
- Those driving electric only and hybrid cars (79% - 81%) were more likely to be informed than petrol and diesel drivers (55% and 62%).

### Awareness of operational issues

The survey then showed respondents various statements describing how the LEZ will work in Edinburgh city centre and asked them to rate how well informed they felt about each. Responses were rated on a scale of one to ten. One being not at all informed, and ten extremely well informed. Data has shown significant increases in understanding each wave. The table below shows significant increases in being informed for all statements this wave.

**Table 6. Level of being informed, general population**

	Net Informed		
	Wave 1 2022	Wave 2 2023	Wave 3 2024
You do not need to have an electric car to drive into the LEZ, modern petrol and diesel cars will usually also meet the LEZ minimum standards.	50%	68%	 75%
The LEZ will contribute to improving air quality in the city centre	56%	68%	 75%
Automatic number plate recognition cameras will be used to identify the vehicles which do not comply with the LEZ minimum standard	48%	67%	 75%
The LEZ will contribute to improving air quality across the whole city	54%	65%	 72%
The LEZ will be in operation 24 hours a day, all year round (including public holidays)	48%	64%	 74%
Residents and visitors to the city will have a grace period of two years, from 31st May 2022, to prepare their vehicles to comply with the LEZ minimum standards, before any penalty charges (fines) will be issued	43%	62%	 72%
The LEZ will help the city achieve its net zero 2030 climate change target	51%	56%	 69%
Drivers with a Blue Badge will be exempt from LEZ penalty notices (fines).	38%	56%	 62%
Motorcycles and mopeds are allowed to drive in the LEZ	34%	42%	 56%

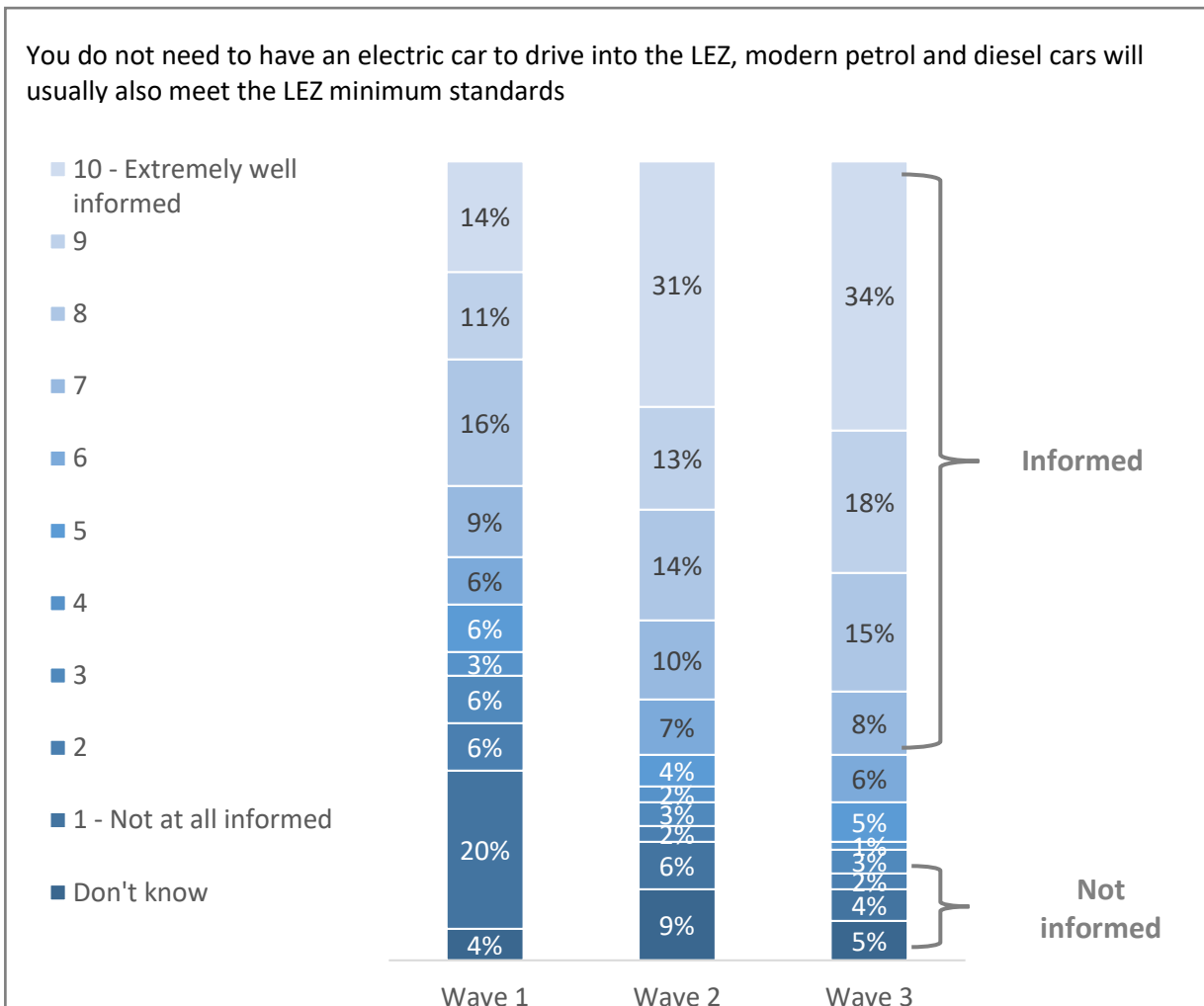
Q5. The following statements describe how the LEZ will work in Edinburgh City Centre. Please tell me how informed you were of how the LEZ would operate before this interview today. **Base: Wave 1: 635, Wave 2: 642 Wave 3: 636**

It is clear that levels of awareness were high across all issues. The following analysis shows that groups who consistently claimed to be better informed were: men, those aged over 34, in favour of the LEZ scheme, travel everyday in Edinburgh, were residents of Edinburgh and were drivers of electric and hybrid vehicles. These groups are consistent with wave two.

The following charts give more detail on the levels of how well-informed respondents felt on each of the nine operational issues tested. Where applicable we have charted responses from van drivers.

This section describes how informed respondents felt about not needing an electric car to drive into the LEZ.

**Chart 7. Informed about not needing an electric car, general population**



Q5. Please tell me how informed you were of how the LEZ would operate before this interview today.  
**Base: Wave 1: 635, Wave 2: 642, Wave 3: 636**

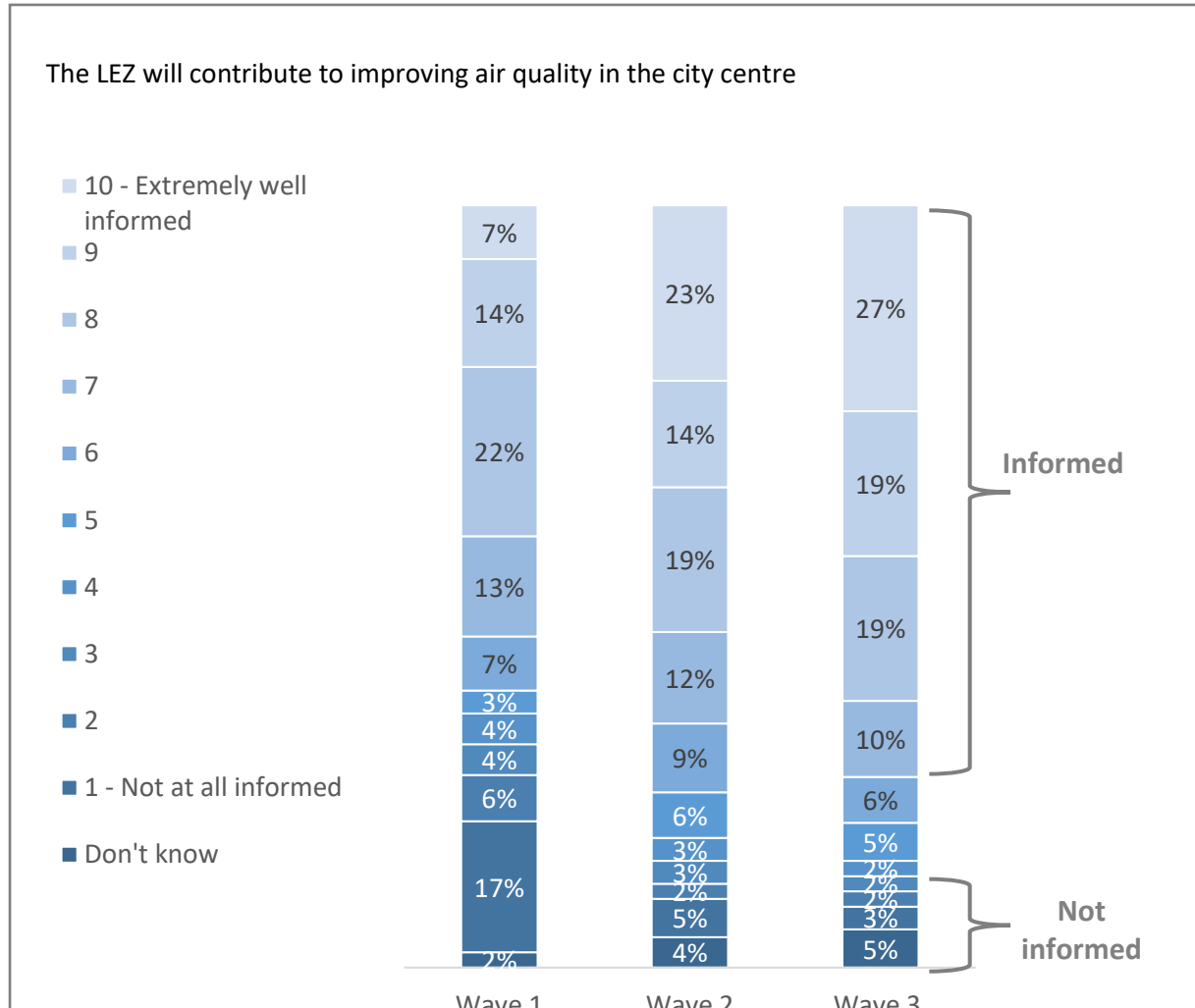
NET: Informed	Wave 1	Wave 2	Wave 3
Informed (7~10)	50%	68%	75%
N/N (5~6)	12%	10%	10%
Not informed ((1~4)	34%	13%	10%

Those who claimed to be better informed on this issue were:

- Men compared to women (80% vs 69%)
- Those aged over 18 -34 yrs ((18-34 (62%) vs 35-54 (83%), 55-75 (76%) and 75+ 68%))
- Those in favour of the LEZ vs those opposed (87% vs 71%)
- Those who travel everyday compared to weekends only and other mix of day travellers (81% vs 55%, 72%)
- Edinburgh residents compared to those who live in the rest of Scotland (82% vs 65%)
- Those living in the city centre compared to those living in other parts of Edinburgh (89% vs 79%) Electric and hybrid car drivers compared to petrol and diesel drivers (85% and 88% vs 71% and 74%)

This section describes how informed respondents felt about the LEZ contributing to improving air quality in the city centre.

**Chart 8. Informed about improving air quality in the city, general population**



Q5. Please tell me how informed you were of how the LEZ would operate before this interview today.  
**Base: Wave 1: 635, Wave 2: 642, Wave 3: 636**

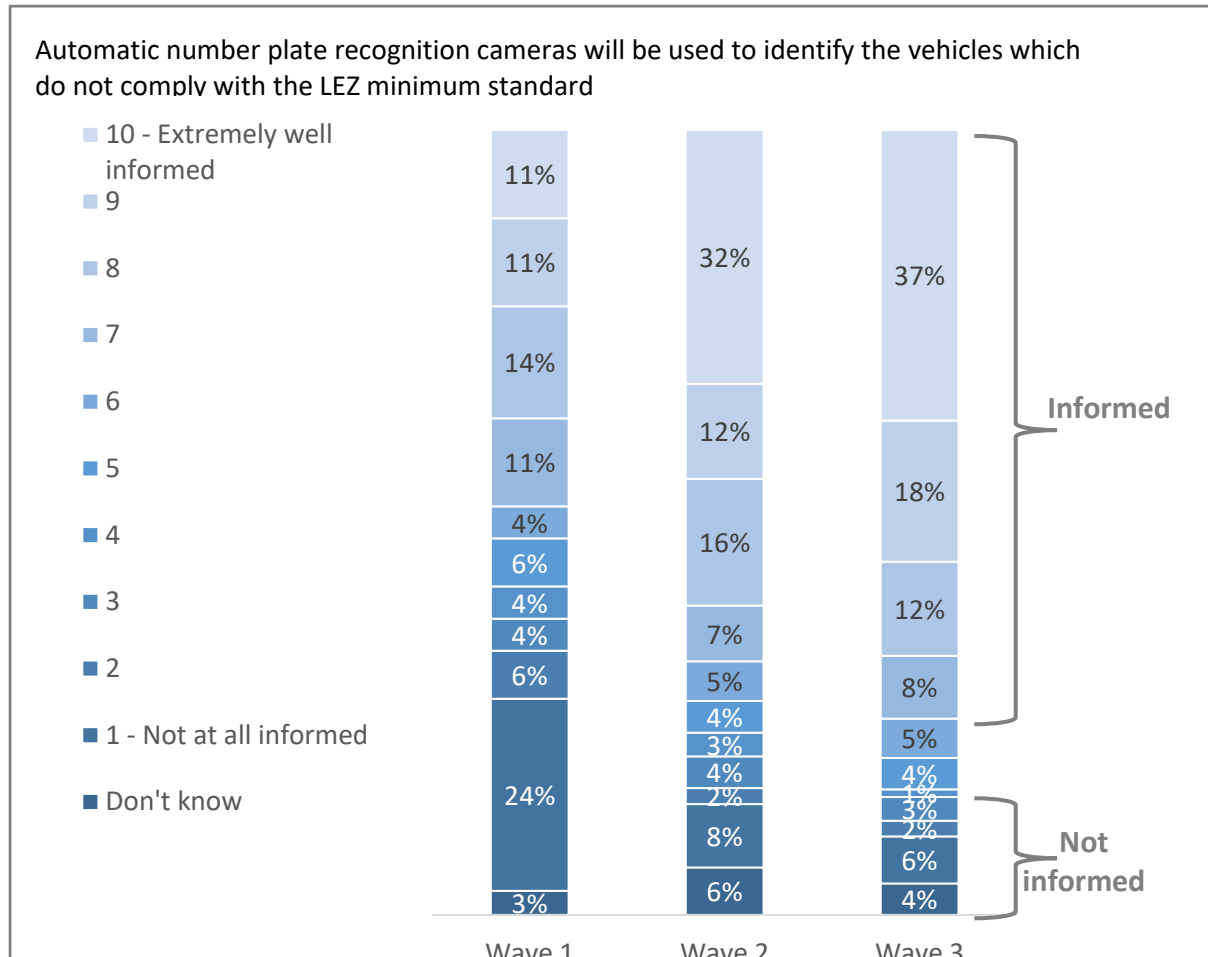
NET: Informed	Wave 1	Wave 2	Wave 3
Informed (7~10)	56%	68%	75%
N/N (5~6)	11%	15%	12%
Not informed ((1~4)	31%	13%	9%

Those who tended to be better informed on this issue were:

- Those aged over 18 -34 yrs ((18-34 (64%) vs 35-54 (80%) and 55 -74 (77%))
- Those in favour of the LEZ were more informed than those opposed (88% vs 67%)
- Electric car drivers were more aware than petrol and diesel drivers (88% vs 74% and 69%).

The following section describes how informed respondents felt about the use of automatic number plate recognition cameras to identify non-compliant vehicles in the LEZ.

**Chart 9. Informed about automatic number plate recognition cameras, general population**



Q5. Please tell me how informed you were of how the LEZ would operate before this interview today.  
**Base: Wave 1: 635, Wave 2: 642, Wave 3: 636**

NET: Informed	Wave 1	Wave 2	Wave 3
Informed (7~10)	48%	67%	75%
N/N (5~6)	10%	10%	9%
Not informed ((1~4)	39%	17%	12%

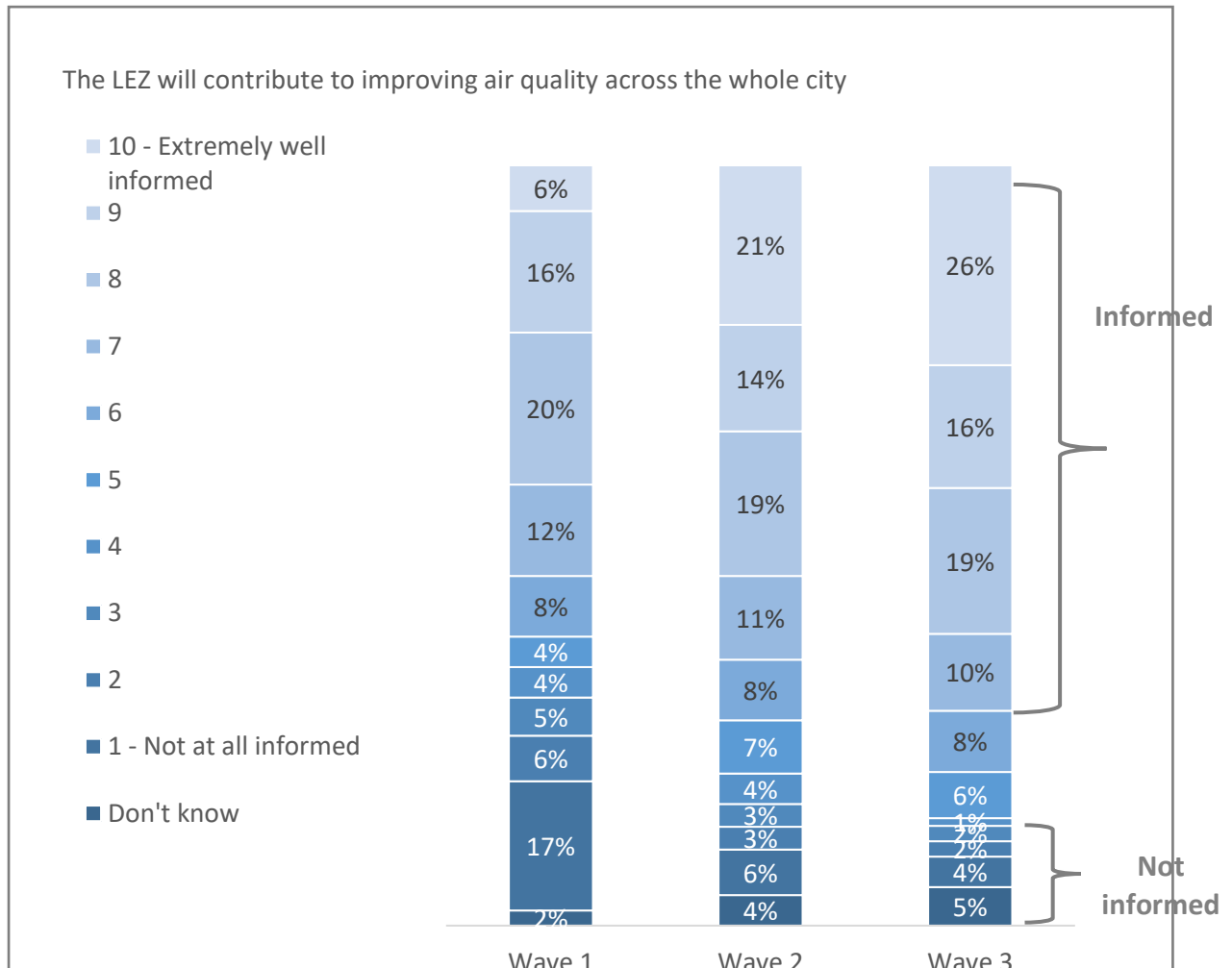
Those who tended to be better informed on this issue were:

- Those aged over 18-34 yrs ((18-34 (62%) vs 35-54 (81%) and 55-75 (79%))
- Those in favour of the LEZ were more informed than those opposed (86% vs 72%)
- Those who travel everyday were more informed compared to weekends only (80% vs 57%,)
- Edinburgh residents were more informed than the rest of Scotland (82% vs 64%)
- Electric and hybrid car drivers were more aware than petrol and diesel drivers (85% & 87% Vs 73% & 71%).



The following section describes how informed respondents felt about the contribution of the LEZ to improving air quality across the city as a whole.

**Chart 10. Informed about contribute to improving air quality across the whole city, general population**



Q5. Please tell me how informed you were of how the LEZ would operate before this interview today.  
Base: Wave 1: 635, Wave 2: 642, Wave 3: 636

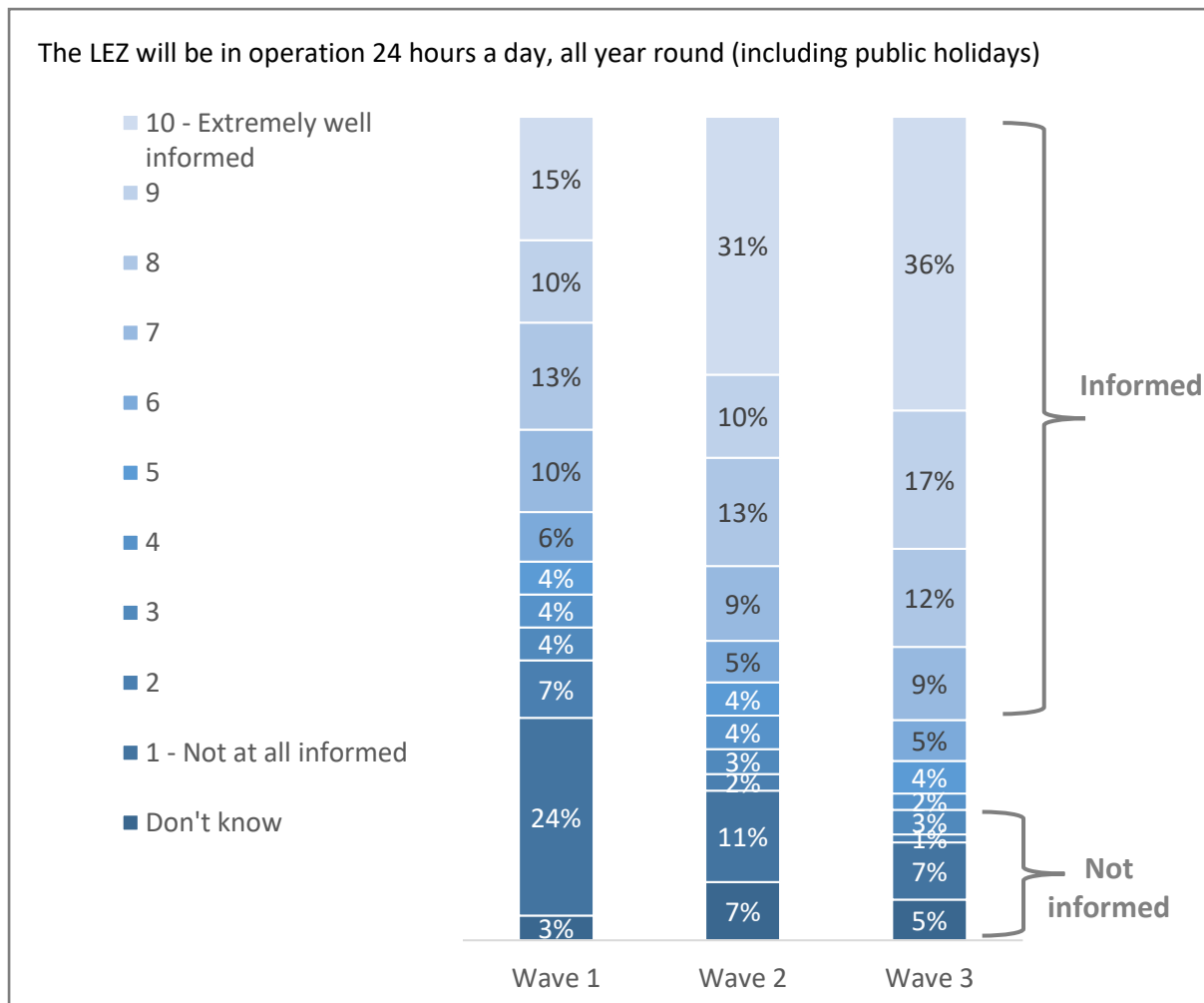
NET: Informed	Wave 1	Wave 2	Wave 3
Informed (7~10)	54%	65%	72%
N/N (5~6)	12%	15%	14%
Not informed ((1~4)	31%	16%	9%

Those who tended to be better informed on this issue were:

- Those aged over 18-34 yrs ((18-34 (63%) vs 35-54 (78%) and 55-75 (71%))
- Those in favour of the LEZ were more informed than those opposed (86% vs 65%)
- Those who travel during the week (every day 77%) (weekday/part week 75%) (weekend only 57%)
- Edinburgh residents were more informed than the rest of Scotland (79% vs 61%)
- Electric and hybrid car drivers were more aware than petrol and diesel drivers (85% each vs 71% and 62%).

The following section describes how informed respondents were about the LEZ being operational 24 hours a day, all year round.

**Chart 11. Informed about being in operation 24 hours a day, all year round, general population**



Q5. Please tell me how informed you were of how the LEZ would operate before this interview today.  
**Base: Wave 1: 635, Wave 2: 642, Wave 3: 636**

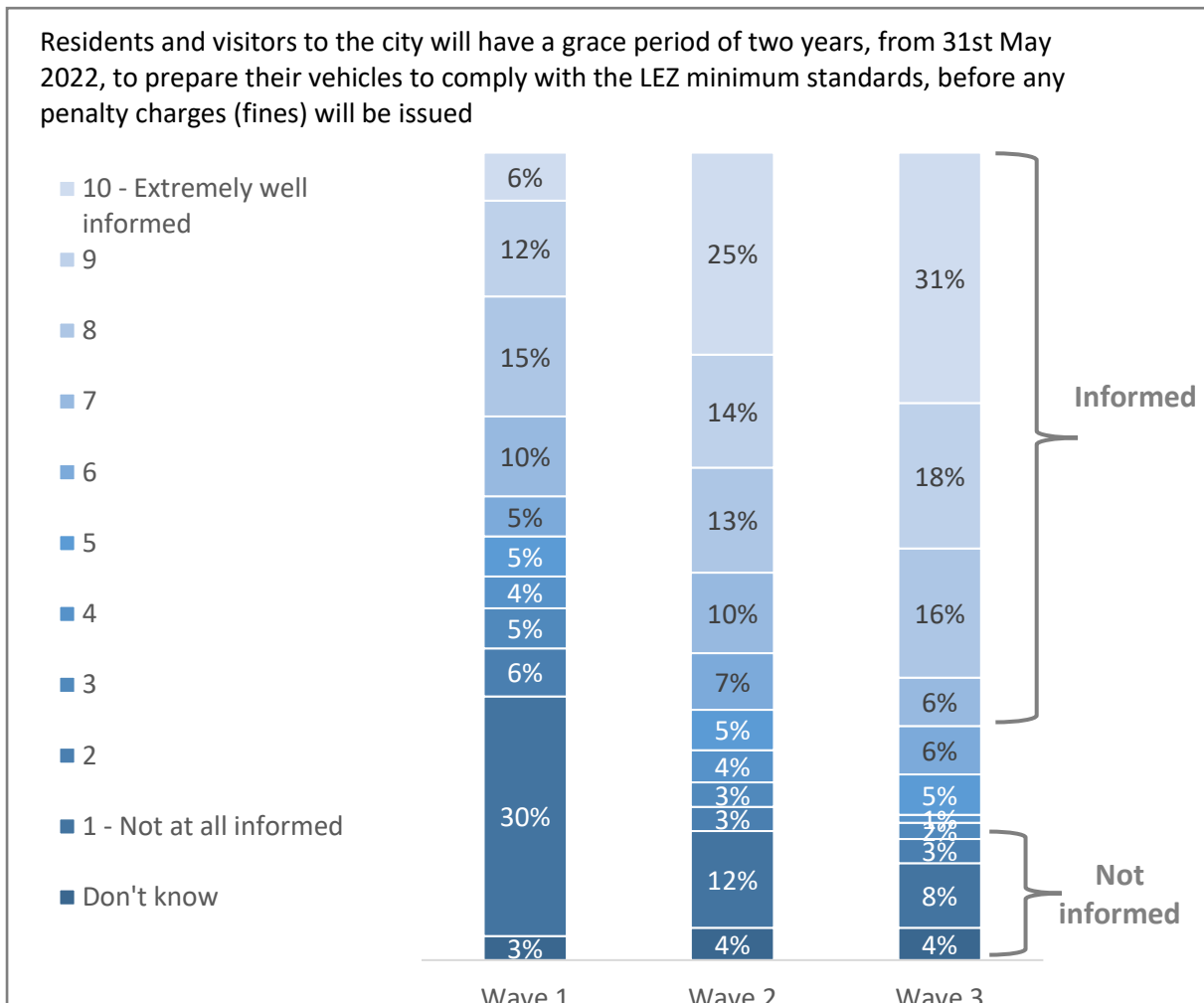
NET: Informed	Wave 1	Wave 2	Wave 3
Informed (7~10)	48%	64%	74%
N/N (5~6)	10%	9%	9%
Not informed ((1~4)	39%	20%	12%

Those who tended to be better informed on this issue were:

- Those aged over 18-34 yrs ((18-34 (59%) vs 35-54 (81%) and 55-75 (77%))
- Those in favour of the LEZ were compared to those opposed (85% vs 69%)
- Those who travel everyday and weekday compared to weekend only (76% vs 59%)
- Edinburgh residents were more informed than the rest of Scotland (80% vs 66%)
- Electric and hybrid car drivers were more aware than petrol and diesel drivers (90% & 87% vs 70% each).

The following section describes how informed respondents were that there is a two-year grace period of two years from the introduction of the LEZ on 31 May 2022 to prepare their vehicles, before any fines are levied.

**Chart 12. Informed about grace period of two years, from 31st May 2022, general population**



Q5. Please tell me how informed you were of how the LEZ would operate before this interview today  
**Base: Wave 1: 635, Wave 2: 642, Wave 3: 636**

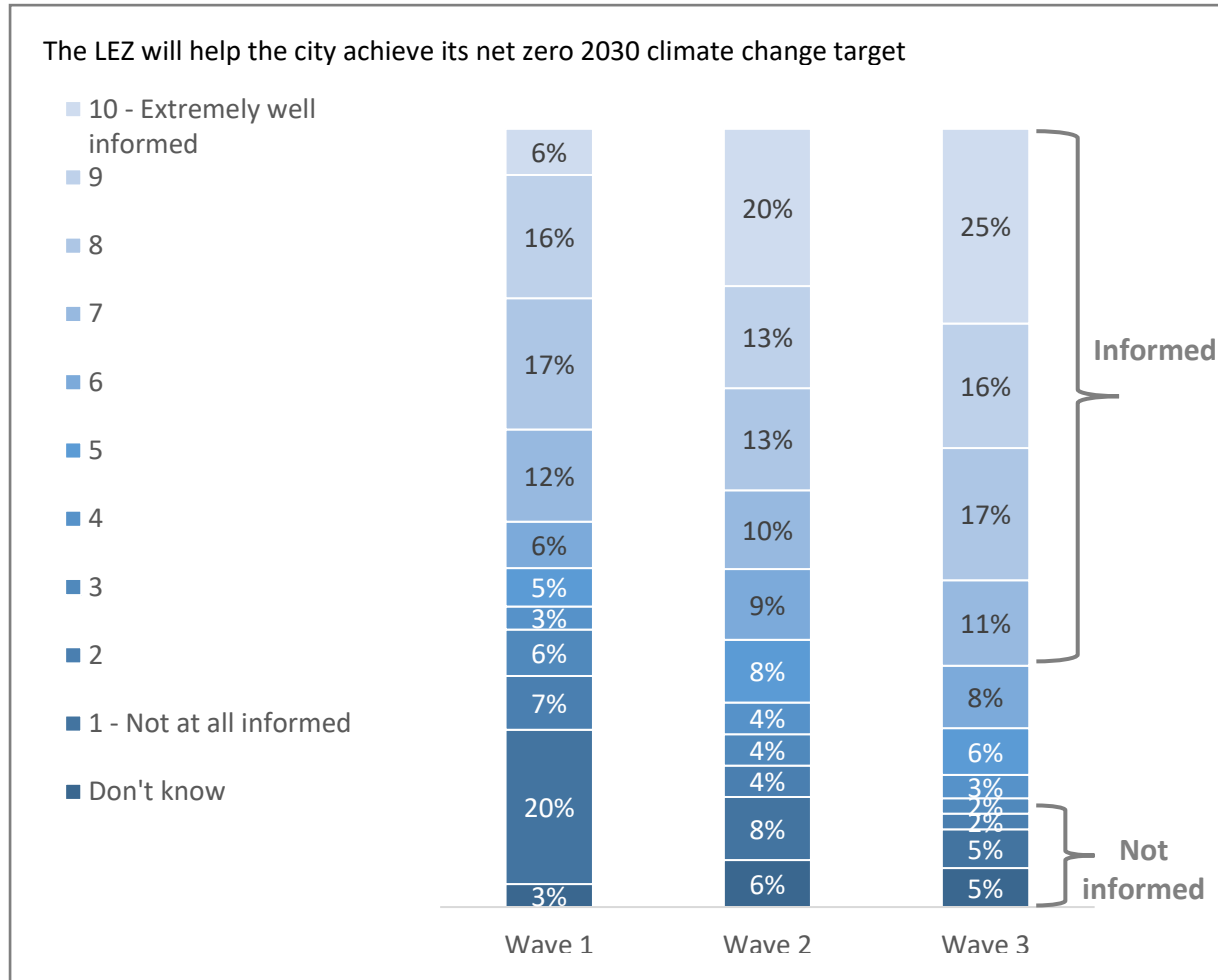
NET: Informed	Wave 1	Wave 2	Wave 3
Informed (7~10)	43%	62%	72%
N/N (5~6)	10%	12%	10%
Not informed ((1~4)	45%	22%	14%

Those who tended to be better informed on this issue were:

- Those aged over 18-34 yrs ((18-34 (59%) vs 35-54 (77%) and 55-75 (76%))
- Those in favour of the LEZ were more informed than those opposed (83% vs 65%)
- Edinburgh residents were more informed than the rest of Scotland (80% vs 60%)
- Electric and hybrid car drivers were more aware than petrol and diesel drivers (85% and 84% vs 69% and 60%).

The following section describes how informed respondents felt about the LEZ helping the city to achieve its net zero 2030 climate change target.

**Chart 13. Informed about help the city achieve its net zero 2030 climate change target, general population**



Q5. Please tell me how informed you were of how the LEZ would operate before this interview today  
**Base: Wave 1: 635, Wave 2: 642, Wave 3: 636, Wave 3: 636**

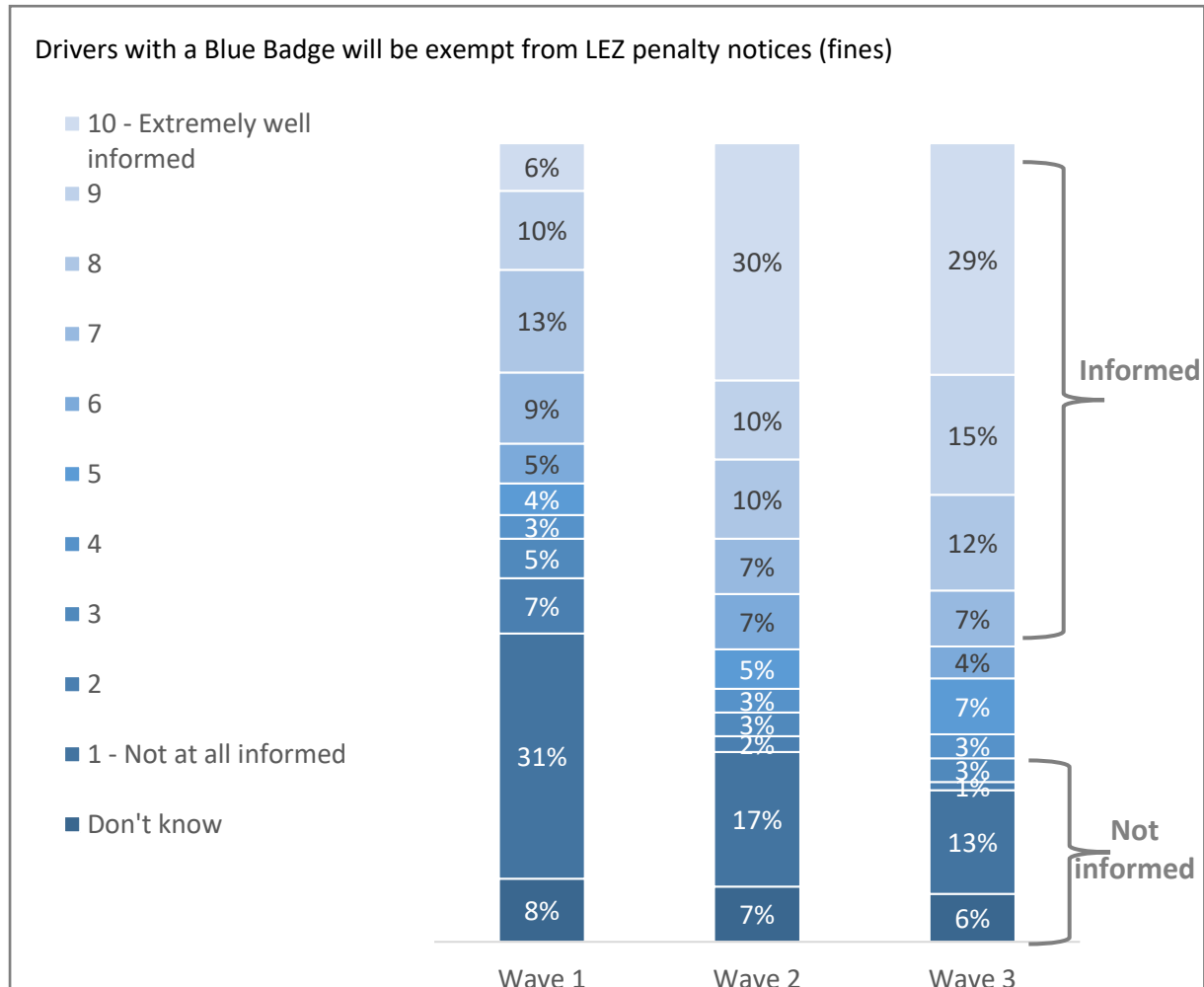
NET: Informed	Wave 1	Wave 2	Wave 3
Informed (7~10)	51%	56%	69%
N/N (5~6)	11%	17%	14%
Not informed ((1~4)	35%	21%	12%

As with other facts those who tended to be more informed included:

- Those in favour of the LEZ were more informed than those opposed (81% vs 63%)
- Those who travel everyday compared to weekends only (70% vs 51%)
- Edinburgh residents were more informed than the rest of Scotland (77% vs 57%)
- Electric and hybrid car drivers were more aware than petrol and diesel drivers (83% and 86% vs 65% and 62%)

The following section describes how informed respondents were about Blue Badge holders being exempt from LEZ penalty notices.

**Chart 14. Informed about blue badge drivers, general population**



Q5. Please tell me how informed you were of how the LEZ would operate before this interview today.  
**Base: Wave 1: 635, Wave 2: 642, Wave 3: 636**

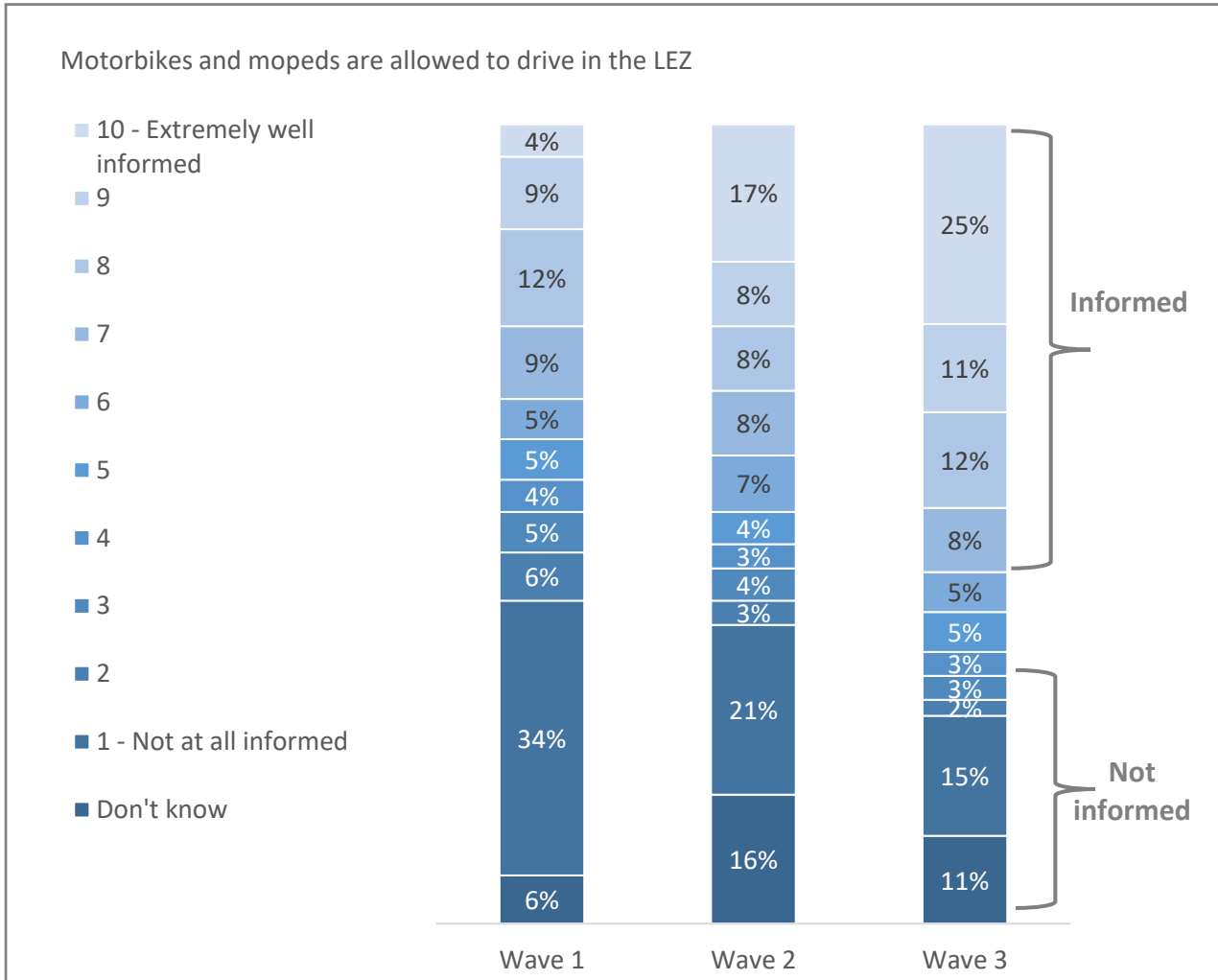
NET: Informed	Wave 1	Wave 2	Wave 3
Informed (7~10)	38%	56%	62%
N/N (5~6)	9%	12%	11%
Not informed ((1~4)	46%	25%	20%

As seen across other issues those who were more informed fell into similar sub-groups:

- Those aged over 18-34 yrs ((18 – 34 (49%) vs 35-74 (67%), and 75+(73%))
- Edinburgh residents were more informed than the rest of Scotland (68% vs 54%)
- Those living in the city centre were more informed than those living in other parts of Edinburgh (76% vs 65%)
- Electric and hybrid car drivers were more aware than petrol and diesel drivers (77% and 82% vs 58% and 55%)

The following section describes how informed respondents were about motorbikes and mopeds being allowed to drive in the LEZ.

**Chart 15. Informed about motorbikes and mopeds, general population**



Q5. Please tell me how informed you were of how the LEZ would operate before this interview today.

Base: Wave 1: 635, Wave 2: 642, Wave 3: 636

NET: Informed	Wave 1	Wave 2	Wave 3
Informed (7~10)	34%	42%	56%
N/N (5~6)	10%	11%	10%
Not informed ((1~4)	49%	31%	23%

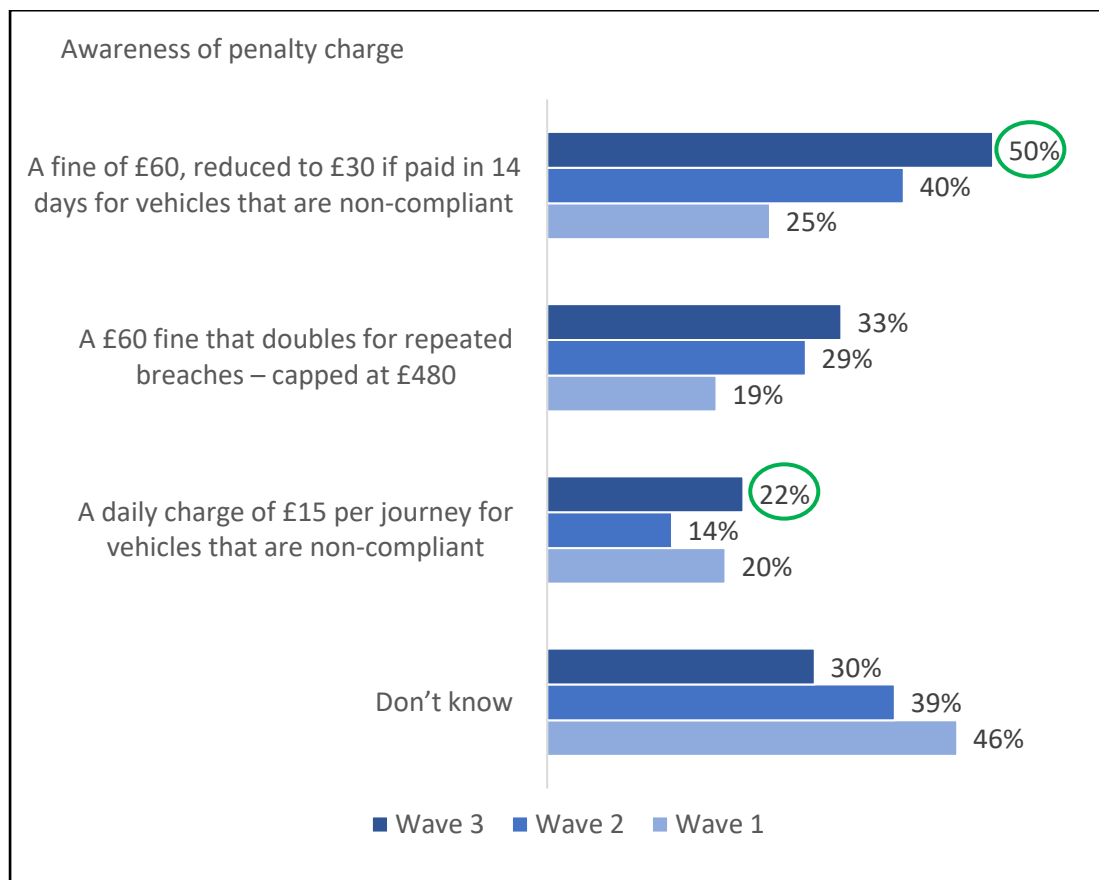
As seen across other issues those who were more informed fell into similar sub-groups:

- Men compared to women (61% vs 51%)
- Those in favour of the LEZ were more informed than those opposed (68% vs 52%)
- Edinburgh residents were more informed than the rest of Scotland (64% vs 46%)
- Electric and hybrid car drivers were more aware than petrol and diesel drivers (79% and 71% vs 52% and 51%)

The final awareness question was about penalty charges. As with wave one and two this was the issue that people were the least well informed about. However, there was a significant increase in awareness in wave three (50%) (wave one 25% wave two 40%). A third (33%) were aware that the fine doubles for repeated breaches. Just under a third (30%) said they didn't know what the penalty charge would be which is a significant decrease from wave one and two (wave one 46%, wave two 39%).

While the third statement in the chart below is not factually correct, nearly a quarter (22%) claimed to be aware of the standard charge of £15 per journey. This is significantly higher than in wave two and highlights the need to continue to make clear the difference between entry and penalty charges in all communications. See chart 16.

**Chart 16. Awareness of penalty charge, general population**



Q6. Which of the following, as far as you are aware, best describes the fines set for non-compliant cars and vans that drive into an LEZ? **Base: Wave 1: 635, Wave 2: 642, Wave 3: 636**

There were very few differences of understanding across sub-groups.

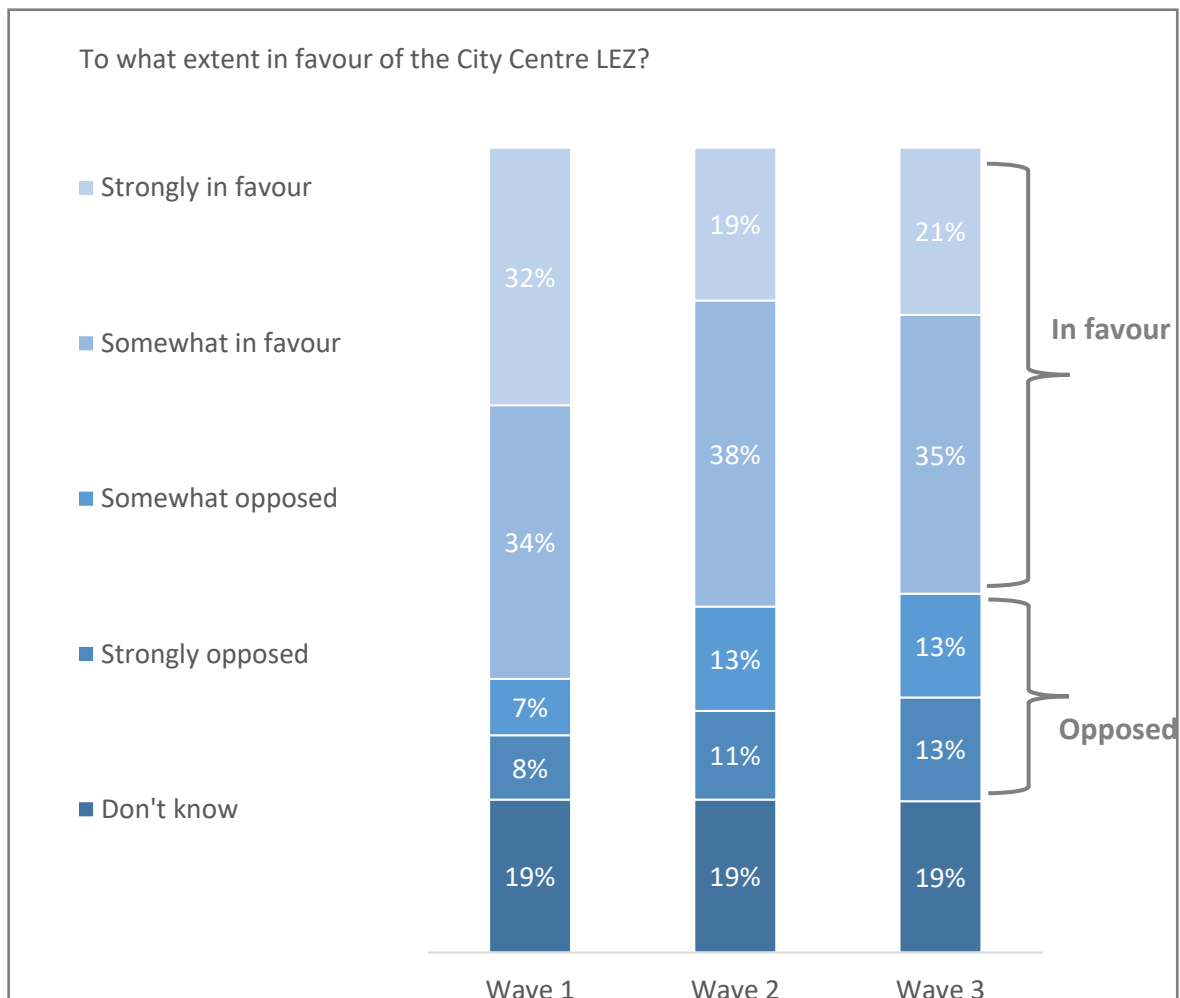
- Edinburgh residents were more informed than the rest of Scotland about fines being reduced to £30 (57% vs 41%) and fine doubling for repeat offences (38% vs 25%) but they were more likely to say they were informed about a daily charge (27% vs 15%)
- Those living in the city centre were more informed than those living in other parts of Edinburgh about fine doubling for repeat offences (50% vs 34%)
- Electric and car drivers were more aware than hybrid, petrol and diesel drivers about fine doubling for repeat offences (60% vs 38% vs 28% vs 32%)

# Support for LEZ

## Overall support

Respondents were questioned on whether they were in favour of the LEZ. A similar number were in favour of the scheme this wave (wave one 66% wave two 58% wave three 56%). Just over a quarter (26%) were opposed to the scheme which is similar to the last wave. See chart 17.

**Chart 17. Support for LEZ, general population**



Q7. Tell me, to what extent are you in favour of the City Centre LEZ?. **Base: Wave 1: 635, Wave 2: 642, Wave 3: 636**

NET	Wave 1	Wave 2	Wave 3
In favour	82%	57%	56%
Opposed	18%	23%	26%

The profile of those in favour is very similar to wave one and two in that women, higher SEGs and Edinburgh city residents. Drivers of electric, hybrid and petrol car drivers were more in favour than



drivers of diesel cars. There were fewer differences across age groups this wave with younger people becoming closer in their thinking to older age groups and not as opposed to LEZ.






- Women were more in favour than men (62% vs 50%)
- ABC1s more in favour than C2DEs (61% vs 44%)
- Edinburgh residents were more in favour than the rest of Scotland (62% vs 47%)
- Electric, hybrid and petrol car drivers were more in favour than diesel drivers (67% and 67% 59% vs 37%)

## Awareness and importance of the impacts of LEZ

Respondents were asked to rate their awareness of the impacts of the LEZ scheme. They were then asked to rank the importance of those issues. Issues fell in the same order of awareness across three waves of research. Making the city centre more attractive, encouraging use of public transport and reduced air pollution being the three top issues in terms of awareness. The issues fell in the same order to the importance, with the exception of reduced air pollution, which was ranked higher in importance than awareness. Charts 18 and 19 illustrate the detail of findings.

Awareness across all issues has remained at the same levels as wave two which saw significant increases on wave one. Acceleration of the uptake of lower emission vehicles remains the least known about and of least of importance to people. See table 7 below:

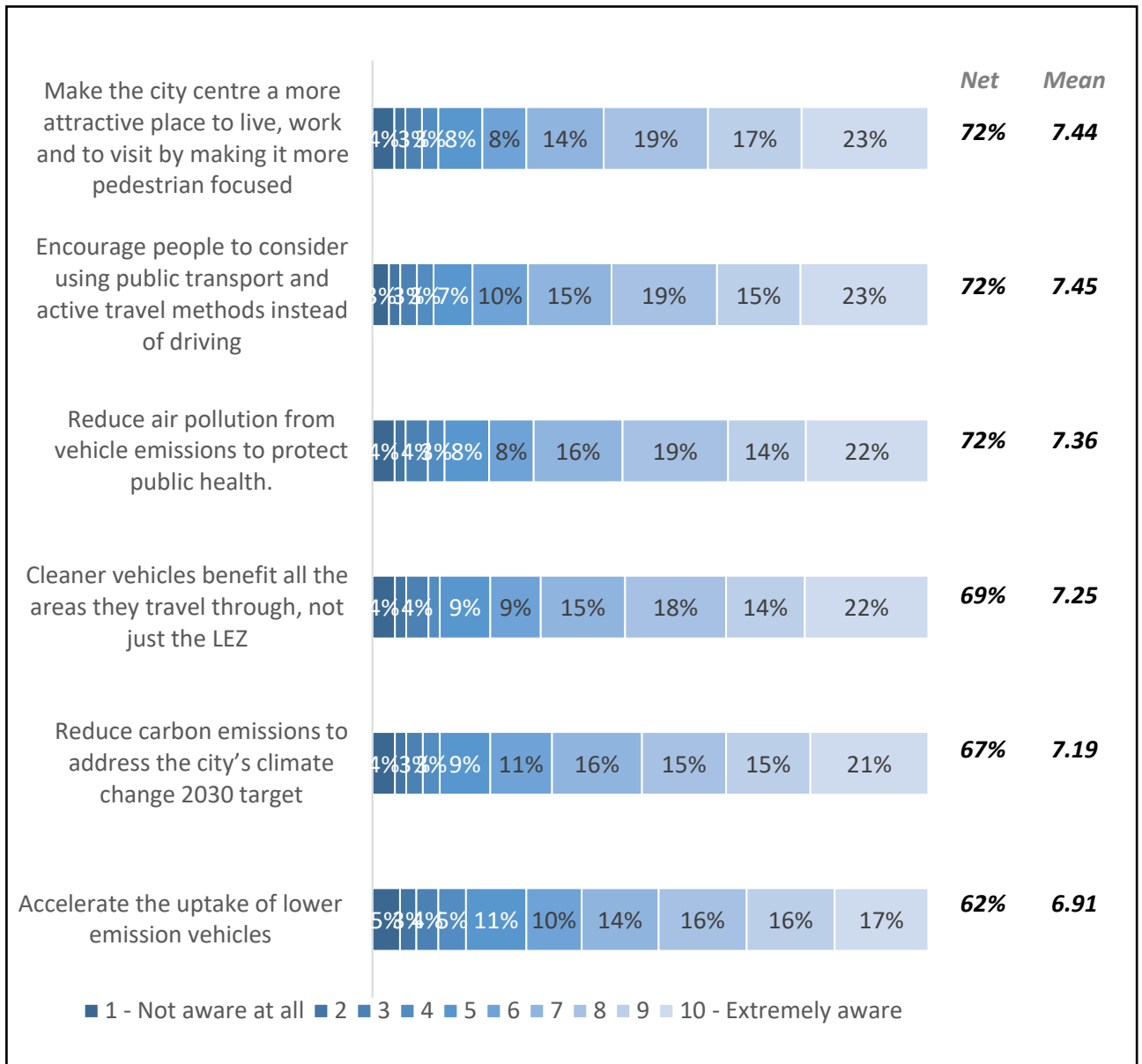
**Table 7. Net awareness of impacts by wave**

NET: Aware	Wave 1	Wave 2	Wave 3
Make the city centre a more attractive place to live, work and to visit by making it more pedestrian focused	60% 	72%	72%
Encourage people to consider using public transport and active travel methods instead of driving	56% 	70%	72%
Reduce air pollution from vehicle emissions to protect public health.	61% 	69%	72%
Cleaner vehicles benefit all the areas they travel through, not just the LEZ	60% 	67%	69%
Reduce carbon emissions to address the city's climate change 2030 target	56% 	64%	67%
Accelerate the uptake of lower emission vehicles	56%	61%	62%

Q8. The following are some of the benefits for the city that will come from the introduction of the LEZ. How aware of these impacts of Low Emission Zones would you say you are? **Base: Wave 1: 635, Wave 2: 642, Wave 3: 635**

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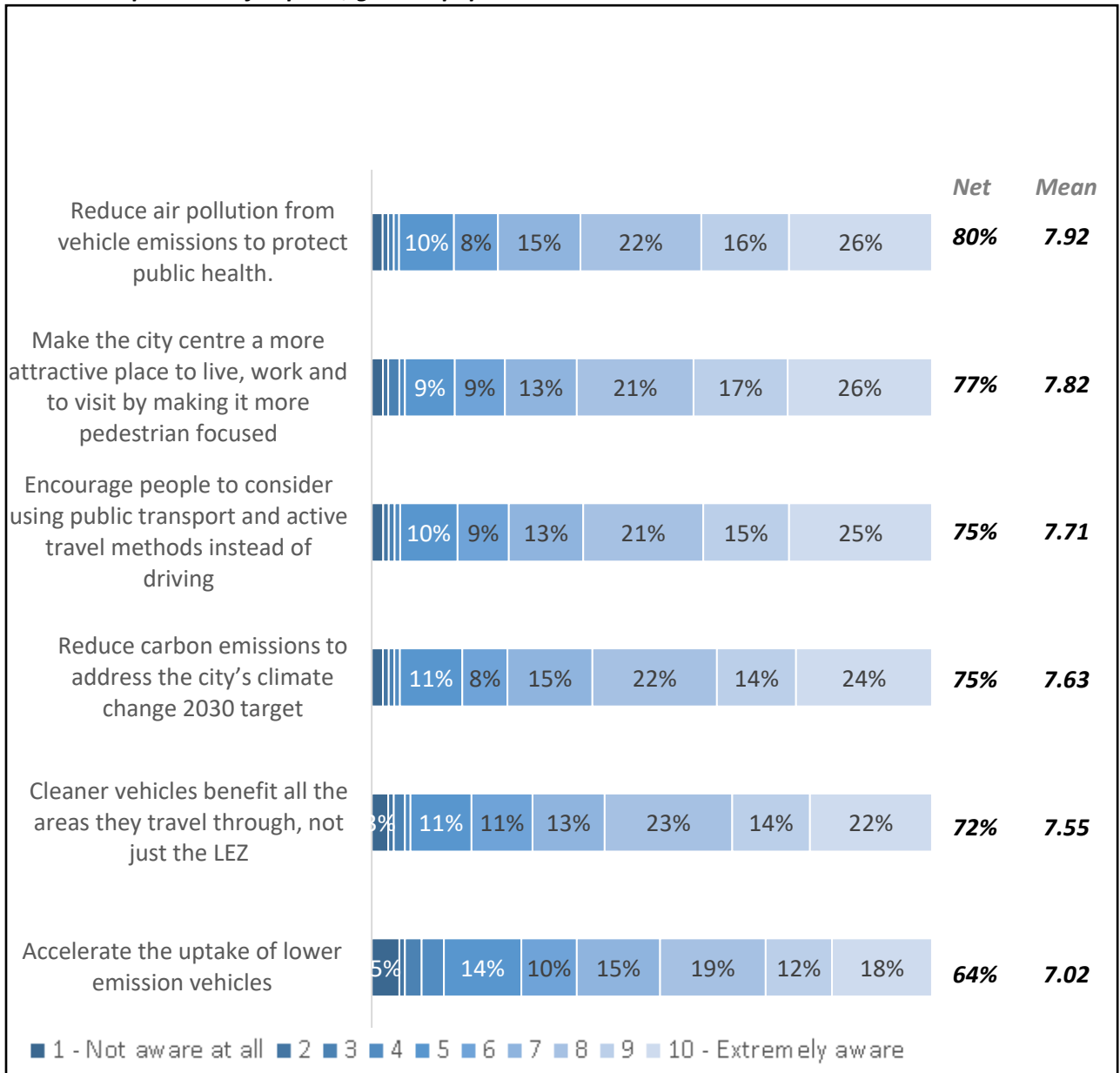
**Chart 18. Awareness of impacts, General population**



Q8. The following are some of the benefits for the city that will come from the introduction of the LEZ. How aware of these impacts of Low Emission Zones would you say you are? **Base: Wave 3: 635**

A full breakdown of the differences across sub-groups (where they existed) can be found in appendix A.

**Chart 19. Importance of impacts, general population**



Q9. And thinking of each of these impacts in turn, how important or unimportant would you say they will be for the people of Edinburgh? **Base: Wave 3: 635**

The order of importance matched wave two and we saw no significant differences in the ratings of importance this wave compared to wave two.

A full breakdown of the differences across sub-groups (where they existed) can be found in appendix A.

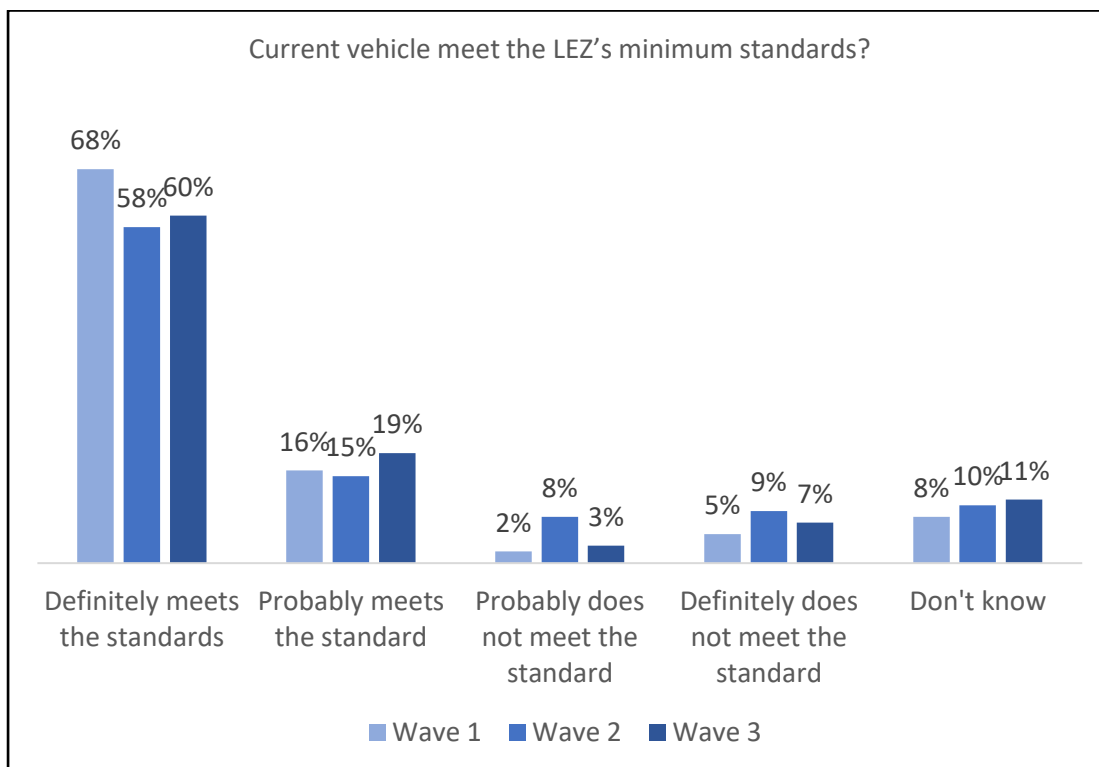
# Behaviour change

The final section of the survey focuses on the status of respondents' current cars, whether they have replaced them in recent years and if so why. It continues with a set of questions designed to determine the likely changes respondents intend to make and when they intend to make them.

## Status of current vehicle

The following chart illustrates that the majority (60%) consider their vehicles definitely meet the standards. This is a significant drop from wave one and in line with wave two and is likely to be the result of drivers being better educated about standards as the date for compliance becomes closer. Nearly one in five (19%) think their vehicles probably comply. Just 3% think they probably do not meet the standards which is a significant decrease on wave two and just under one in ten (7%) said their car definitely does not meet the standard which is in line with wave two. See chart 20.

**Chart 20. Status of current vehicle, general population**



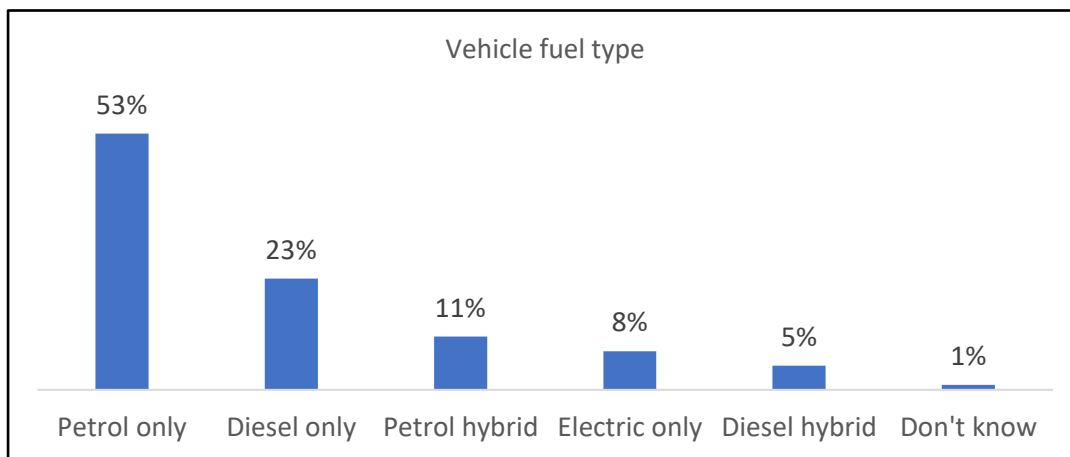
Q10. To the best of your knowledge, does your current vehicle meet the LEZ's minimum standards?  
**Base: Wave 1: 631, Wave 2: 641, Wave 3: 635**

In previous waves there were significant differences across SEG, travel behaviours and areas of residence when it came to compliance. This wave there is a balance of compliance with differences occurring only in those who are informed about LEZ for Edinburgh and its boundaries:

- Informed about LEZ for Edinburgh (86%) Not informed (61%)
- Understand boundaries (86%) Not understanding (58%)

There are no significant differences in fuel types of vehicle this wave. Over half (53%) of the sample drove vehicles that were petrol only. A quarter (23%) drove diesel only vehicles, just over one in ten (11%) drove petrol hybrid. See chart 21.

**Chart 21. Fuel type of current vehicle, general population**



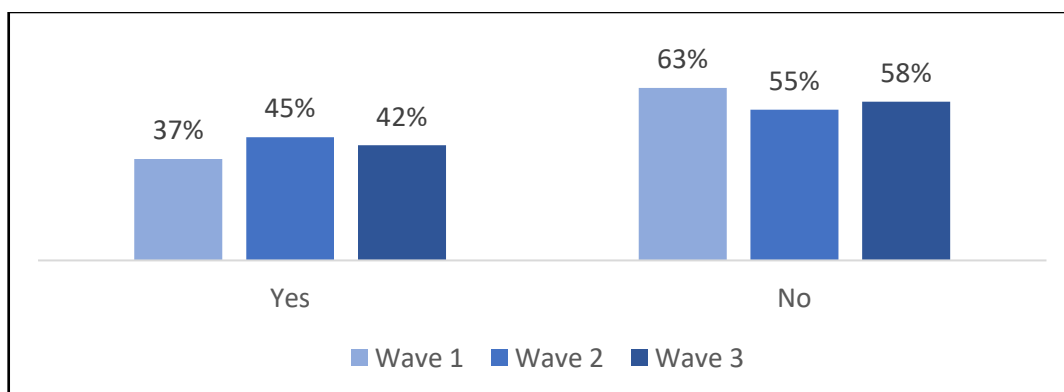
Q10b. To the best of your knowledge, what fuel type does your vehicle use?

**Base: Wave 3: 635**

**Car replacement**

Of those whose cars met the standard two in five (42%) claimed to have replaced their car in the last two years. This is in line with wave two. See chart 22.

**Chart 22. Replaced in last 2 years, general population**



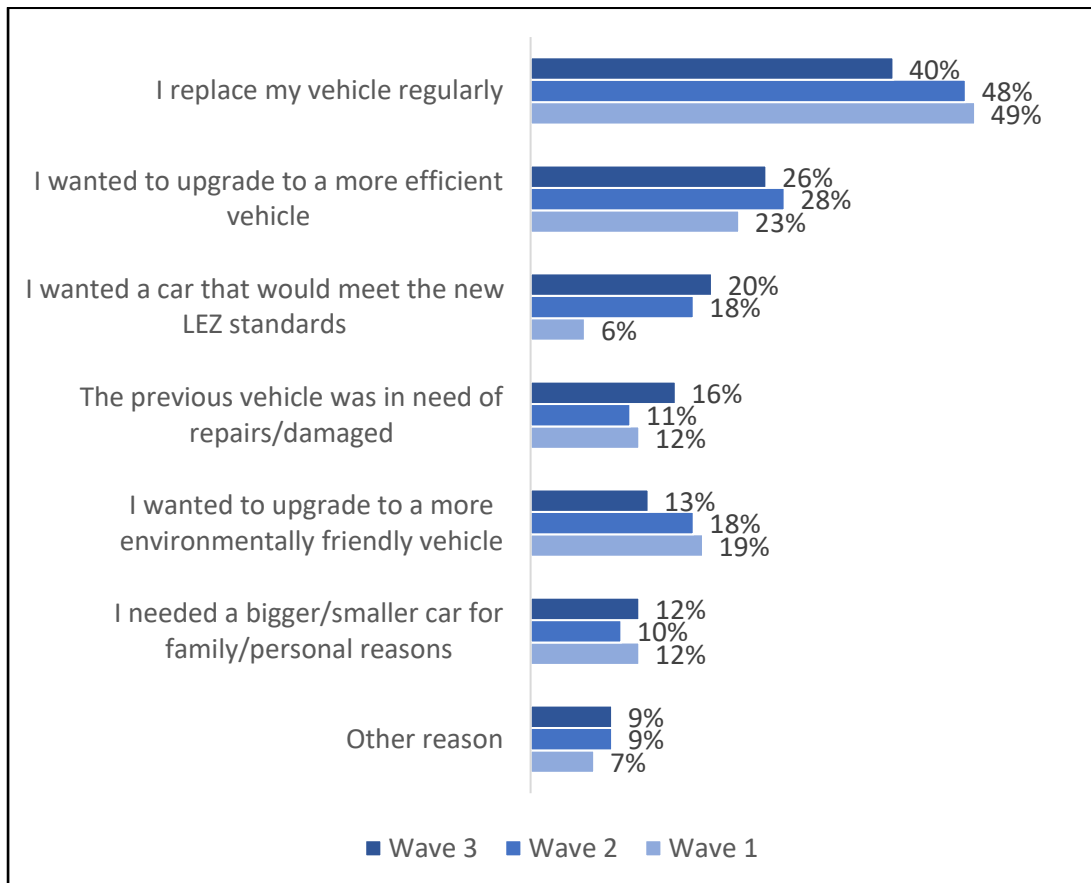
Q11. Have you replaced your vehicle in the last two years?

**Base (those whose car definitely or probably meets the standard): Wave 1: 533, Wave 2: 468, Wave 3: 499**

**Why replaced**

When asked why they had changed their cars, the most often mentioned reason was because vehicles are changed regularly anyway. Just over a quarter (26%) said they wanted to have a more efficient vehicle and one in five (20%) wanted a car that met the new standards, which is a significant increase on wave one and in line with wave two. This suggests the scheme encouraged people to accelerate the uptake of lower emission vehicles in 2023 but this has now slowed down.

**Chart 23. Why replaced**



Q13. Which of the following best describes why you replaced your vehicle in the last two years?  
**Base (all those who replaced your vehicle in the last two years): Wave 1: 195, Wave 2: 211, Wave 3: 211**

Reasons for replacement were similar across all sub-groups.

## Behaviours planned and actioned as a consequence of LEZ

In all waves respondents were asked what types of actions, if any, they thought they might take as a consequence of the implementation of the LEZ. They could select more than one action, where relevant. This wave respondents were also asked which of the following actions they have already done as a consequence of the introduction of LEZ in Edinburgh.

The most popular actions taken in response to the introduction of LEZ were to:

- Use public transport, a third said they had done this
- One fifth said they had walked more
- One fifth had used park and ride
- One in ten said they upgraded their vehicle
- Just over one in fourteen said they had avoided LEZ area
- And nearly one in twenty said they had cycled more

While we see very little changes in planned actions there are significant differences across planned and actioned behaviours this wave. See table 8 below.

**Table 8. Behaviours planned and actioned**

NET: Will act	Wave 1 Planned 2022	Wave 2 Planned 2023	Wave 3 Planned 2024	Wave 3 Actioned 2024
Use public transport more (buses, tram, train)	47%	51%	49%	32%
Walk more	35%	40%	35%	21%
Make no changes at all	37%	35%	27%	31%
Use park and ride (park outside the city centre and then use public transport)	29%	26%	29%	19%
Upgrade my vehicle	19%	20%	18%	11%
Avoid the City Centre LEZ area	10%	12%	10%	7%
Use taxis / private hire cars more	12%	11%	5%	2%
Cycle more	6%	10%	6%	4%
Apply for other sustainable travel grants	10%	10%	6%	3%
Apply for LEZ support funds to help upgrade my vehicle	10%	10%	7%	3%
Car share in a compliant vehicle	11%	9%	9%	4%
Not travel to Edinburgh at all	4%	5%	7%	4%
Give up my vehicle	3%	4%	4%	3%
Join a car club	4%	3%	2%	0%

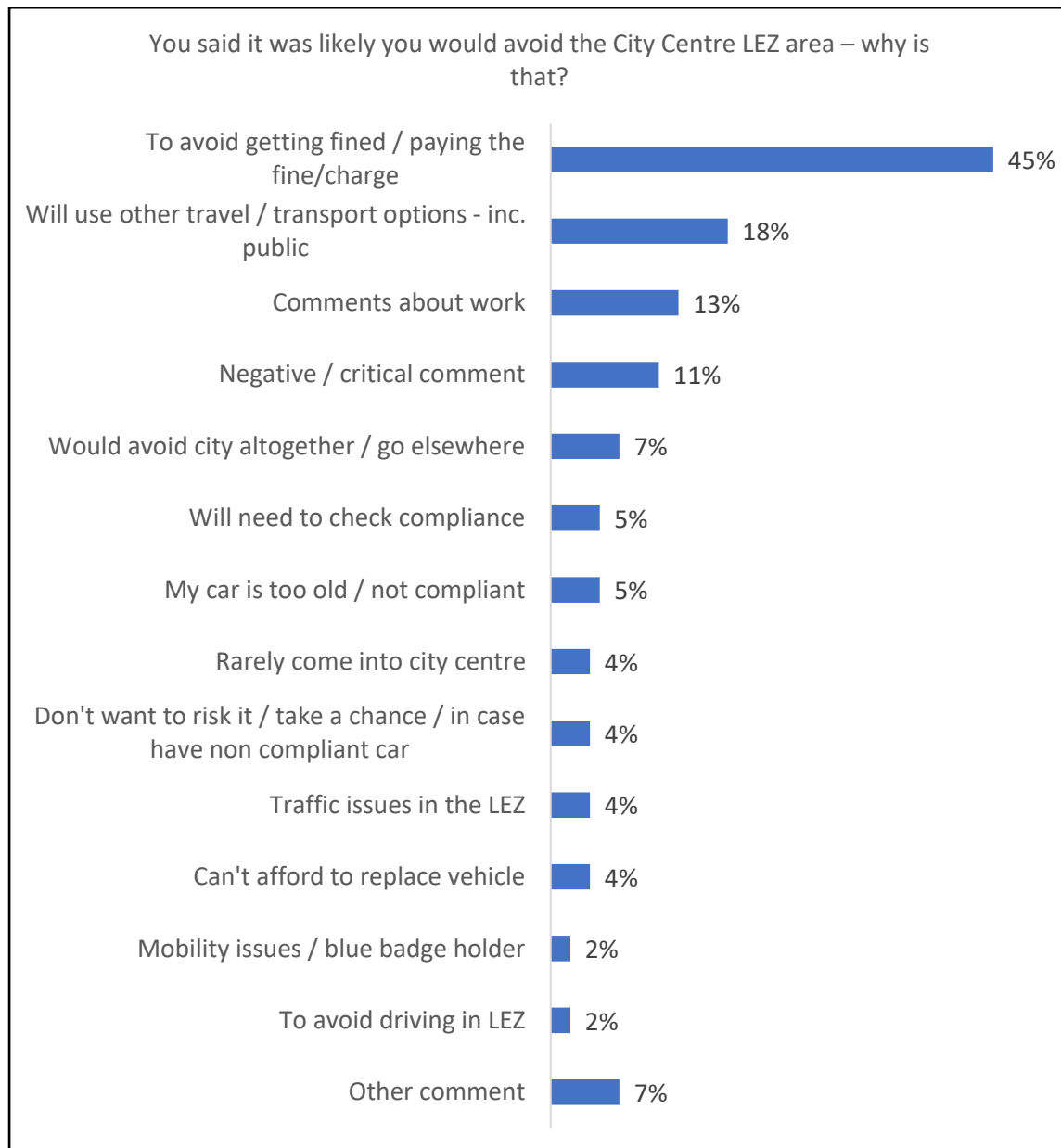
Q13. How likely are you to take the following actions as a consequence of the introduction of the City Centre LEZ? **Base: Wave 1: 521-635, Wave 2: 530-642, Wave 3: 259-636**

Q14. Which of the following have you already done, as a consequence of the introduction of the City Centre LEZ? **Base: Wave 3: 259-636, Wave 3: 259-636**

## Reasons for making or avoiding change

The few who said they would avoid the city centre once the LEZ was introduced were asked why and given an open text box to explain their thinking. The base number to this question was fairly low with only 55 saying they would avoid the city centre and so the table below should be read with caution. As with waves one and two the main reason given was to avoid the fine. See chart 24:

**Chart 24. Reasons for avoiding City Centre**

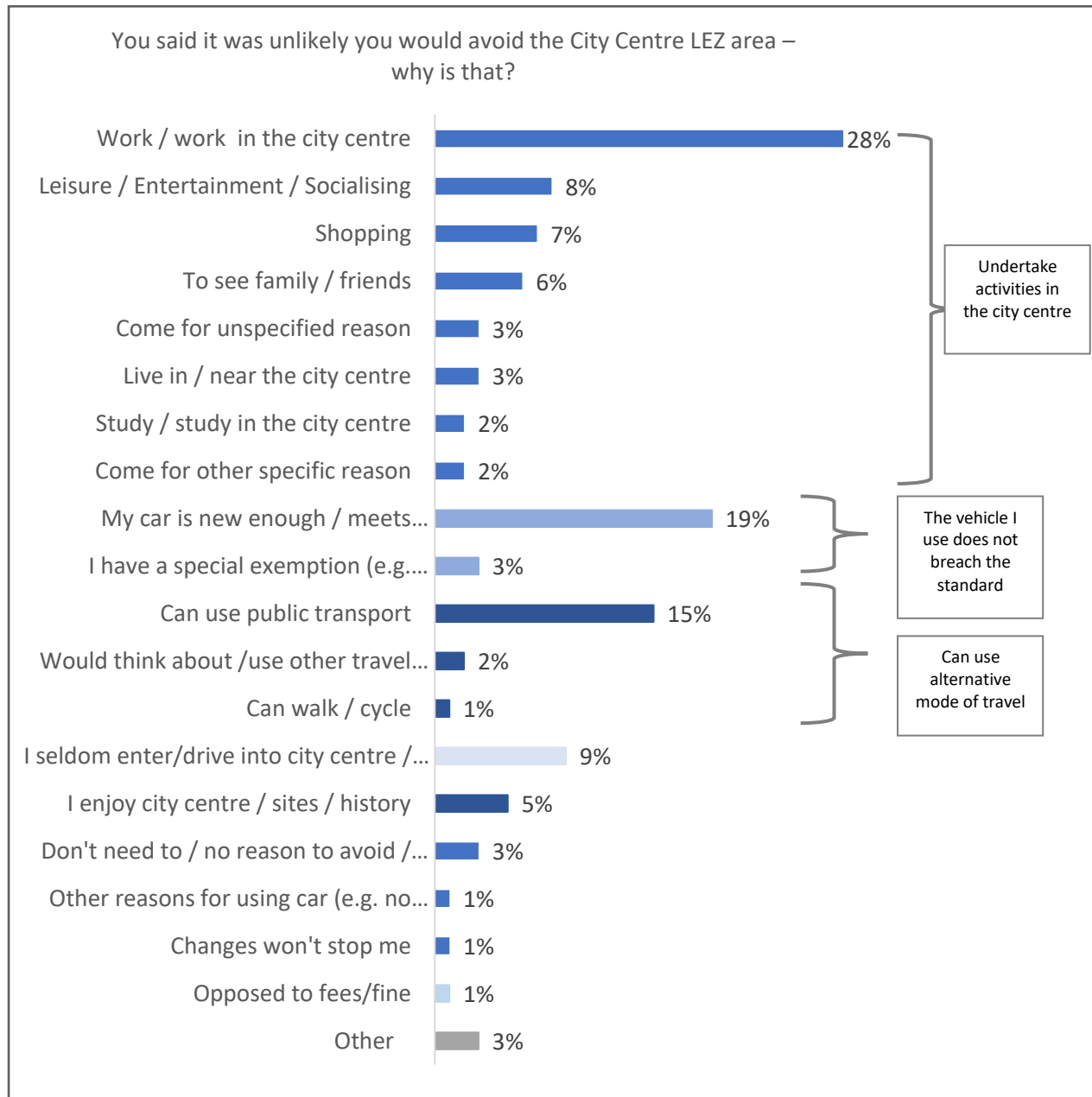


Q16 - You said it was likely you would avoid the City Centre LEZ area – why is that? **Base 55** 



A much larger proportion (429 respondents) said it was unlikely they would avoid the City Centre after the LEZ was introduced. When asked why that was the case, as with previous waves the biggest mention was because they work in the City Centre. This was followed by other reasons to be in the City Centre, such as leisure and shopping. Some said their car was new enough not to worry about the LEZ, others said they could use public transport. Reasons given are illustrated in chart 25.

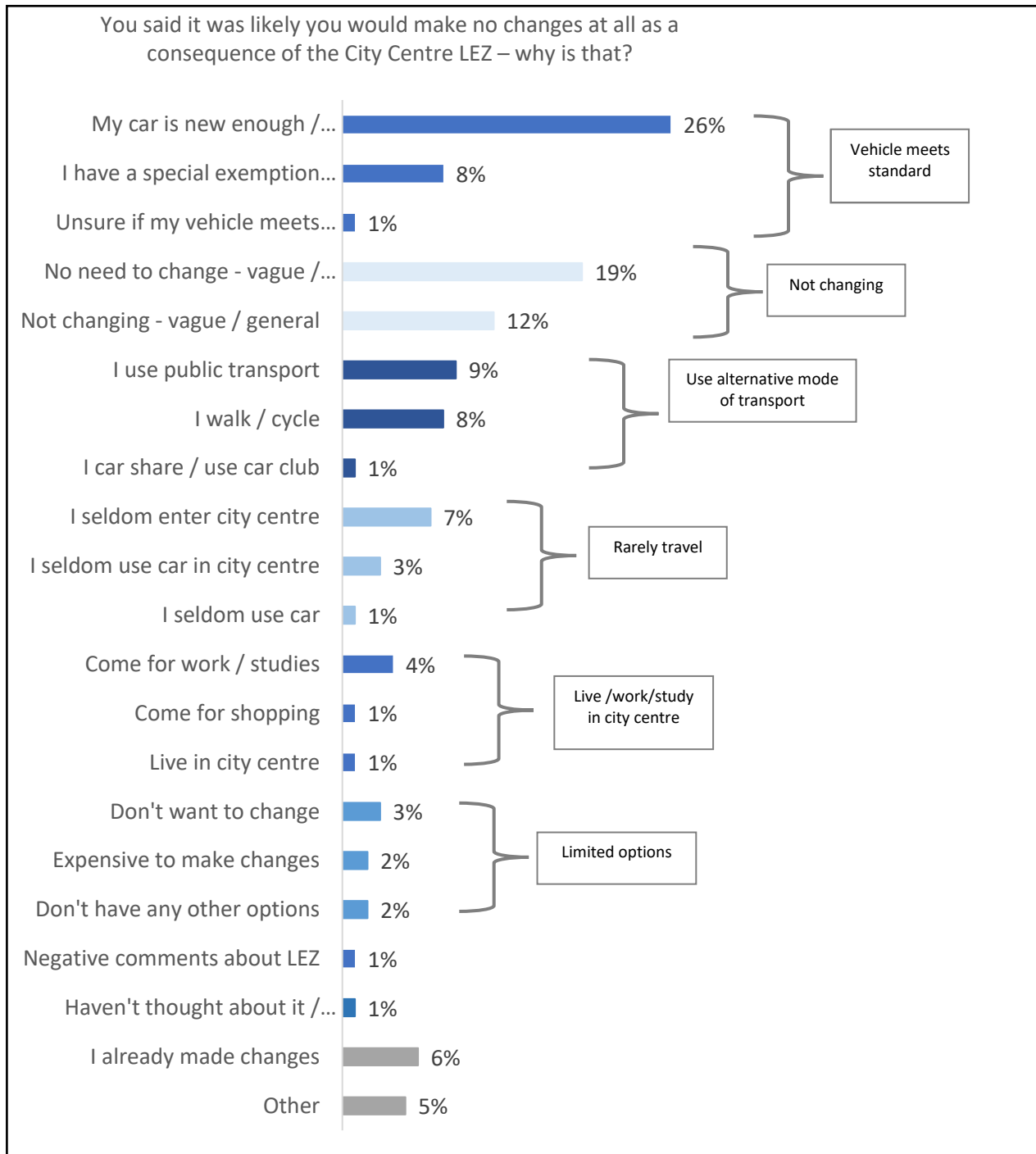
**Chart 25. Reasons for not avoiding City Centre**



Q17. You said it was unlikely you would avoid the City Centre LEZ area – why is that? **Base: 429**

Those who claimed they would make no change (172 respondents) as a consequence of LEZ were asked why. As with previous waves the main reason given is their car meets the new standard. They were given an open text box to explain their thinking. All responses are illustrated below in chart 26.

**Chart 26. Reasons for not making change**



Q18. You said it was likely you would make no changes at all as a consequence of the City Centre LEZ – why is that? **Base: 172**

# Appendix A: Additional data tables and sub-group analysis

SEG	Wave 1	%	Wave 2	%	Wave 3	%
ABC1	433	68%	414	64%	422	66%
C2DE	198	31%	223	35%	208	33%
PNTS	4	1%	5	1%	6	1%
<b>Base</b>	<b>635</b>	<b>100%</b>	<b>642</b>	<b>100%</b>	<b>636</b>	<b>100%</b>

Physical or mental health condition or illness	Wave 1	%	Wave 2	%	Wave 3	%
Yes	57	9%	64	10%	77	12%
No	561	88%	555	86%	539	85%
Don't know	7	1%	1	0%	6	1%
Prefer not to say	10	2%	22	3%	14	2%
<b>Base</b>	<b>635</b>	<b>100%</b>	<b>642</b>	<b>100%</b>	<b>636</b>	<b>100%</b>

Condition or illness affect the following	Wave 3	%
Vision (e.g. blindness or partial sight)		
Hearing (e.g. deafness or partial hearing)	3	4%
Mobility (e.g. walking short distances or climbing stairs)	40	52%
Dexterity (e.g. lifting or carrying objects, using a keyboard)	1	1%
Learning or understanding or concentrating	3	4%
Memory	1	1%
Mental health	14	18%
Stamina or breathing or fatigue	3	4%
Socially or behaviourally (e.g. associated with autism, attention deficit disorder or Aspergers' syndrome)	1	1%
Other	1	1%
None of the above		
Prefer not to say	14	18%
<b>Base</b>	<b>77</b>	<b>100%</b>

Blue Badge	Wave 1	%	Wave 2	%	Wave 3	%
Yes	34	5%	53	8%	53	8%
No	596	94%	582	91%	578	91%
Don't know	3	0%	1	0%	1	0%
Prefer not to say	2	0%	6	1%	4	1%
<b>Base</b>	<b>635</b>	<b>100%</b>	<b>642</b>	<b>100%</b>	<b>636</b>	<b>100%</b>

Interviewer location: Main sample	#	%		#	%
Edinburgh Waverly Station/New Street	84	13%	NCP Castle Terrace	85	13%
Thistle Street/Semple Street car parks	85	13%	Princes Exchange	73	11%
Omni Centre	84	13%	Q-Park Quartermile	75	12%
NCP Grindley Street	66	10%	NCP Holyrood Road	84	13%

## Sub-group analysis for Q8

### How aware of these impacts of Low Emission Zones would you say you are?

Make the city centre more attractive:

- Those aged 18-34 were less aware than other age groups (61% vs, 35-54 (76%) 55-74 (75%) 75+ (86%))
- Those in favour were more aware than those opposed (90% vs 54%)
- Edinburgh residents were more aware than the rest of Scotland (77% vs 65%)
- Diesel only drivers were least aware compared to electric and hybrid drivers (65% vs 83% and 88%)

Encourage people to consider using public transport:

- Those in favour were more aware than those opposed (87% vs 57%)
- Edinburgh residents were more aware than the rest of Scotland (78% vs 63%)
- Hybrid drivers were more aware than both petrol and diesel drivers (88% vs 67% and 68%)
- Likewise electric vehicle drivers were more aware than petrol drivers (83% vs 67%)

Reduce air pollution from vehicle emissions:

- Those aged 18-34 were less aware than all other age groups (57% vs, 35-54 (78%) 55-74 (74%) 75+ (86%))
- Those with an understanding of the boundary were more aware than those with no understanding (86% vs 36%)
- Those in favour were more aware than those opposed (90% vs 55%)
- Edinburgh residents were more aware than the rest of Scotland (78% vs 63%)
- Diesel drivers were less aware than electric vehicle drivers and hybrid drivers (61% vs 85%, 88%)

Cleaner vehicles benefit all the areas they travel through:

- Those aged 18-34 were less aware than all other age groups (57% vs 35-54 (74%) 55-74 (70%) 75+ (82%))
- Those with an understanding of the boundary were more aware than those with no understanding (84% vs 32%)
- Those in favour were more aware than those opposed (87% vs 51%)
- Active travellers and car/motorcyclists were more likely to rate 10 (extremely aware) than those who use public transport (19% and 20% vs 12%)
- Diesel drivers were less aware than all other drivers (58% vs electric (81%), petrol (68%), hybrid (84%))

Reduce carbon emissions 2030:

- Those aged 18-34 were less aware than all other age groups (55% vs 35-54 (73%) 55-74 (67%) 75+ (82%))
- Those with an understanding of the boundary were more aware than those without (83% vs 30%)
- Those in favour were more aware than those opposed (82% vs 53%)
- Edinburgh residents were more aware than the rest of Scotland (72% vs 59%)

Accelerate the uptake of low emission vehicles:

- Those aged 18-34 were less aware than all other age groups (51% vs 35-54 (67%) 55-74 (63%) 75+ (86%))
- Those in favour were more aware than those opposed (76% vs 54%)
- EV drivers were more aware than diesel drivers (88% vs 52%)

## Sub-group analysis for Q9

**And thinking of each of these impacts in turn, how important or unimportant would you say they will be for the people of Edinburgh?**

Reduce air pollution from vehicle emissions:

- ABC1 thought it more important than C2DEs (81% vs 72%)
- Those in favour rated higher importance than those opposed (94% vs 53%)
- Diesel drivers recorded lowest importance all other drivers (67% vs EV (94%), petrol (78%), hybrid (85%))

Make the city centre more attractive:

- ABC1 rated higher importance than C2DEs (80% vs 71%)
- Those with an understanding of the boundary rated this with higher importance than those with no understanding (83% vs 59%)
- Those in favour rated with higher importance than those opposed (94% vs 48%)
- Diesel drivers recorded lowest importance all other drivers (65% vs EV (92%), petrol (79%), hybrid (80%))

Encourage people to consider using public transport:

- Those aged 75+ rated higher importance than 18-34 year olds (91% vs 68%)
- ABC1 rated higher importance than C2DEs (77% vs 70%)
- Those in favour rated higher importance than those opposed (92% vs 45%)
- Edinburgh residents rated higher importance than the rest of Scotland (79% vs 69%)
- Diesel drivers recorded lowest importance all other drivers (62% vs EV (90%), petrol (76%), hybrid (81%))

Reduce carbon emissions 2030:

- Women rated higher importance than men (79% vs 71%)
- ABC1 rated higher importance than C2CEs (78% vs 69%)
- Those in favour rated higher than those opposed (92% vs 48%)
- Diesel drivers rated lower importance than electric and hybrid drivers (65% vs 88% and 87%)

Cleaner vehicles benefit all areas:

- 75+ rated higher importance than those aged 18-34 (91% vs 66%)
- ABC1s rated 10 (extremely important) more than C2DEs (26% vs 16%)
- Those in favour rated higher importance than those opposed (89% vs 47%)
- Edinburgh residents rated higher importance than the rest of Scotland (76% vs 67%)
- Diesel drivers recorded lowest importance all other drivers (60% vs electric (88%), petrol (73%), hybrid (79%))

Accelerate the uptake of low emission vehicles:

- Those aged 18-34 rated lower across all ages
- Those with an understanding of the boundary rated higher importance than those with no understanding (71% vs 47%)
- Those in favour rated higher importance than those opposed (79% vs 42%)
- Edinburgh residents rated higher importance than the rest of Scotland (69% vs 56%)
- Diesel drivers recorded lowest importance all other drivers (50% vs electric (85%), petrol (63%), hybrid (76%))
-

## Sub-group analysis for Q15

### How likely are you to take the following actions as a consequence of the introduction of the city centre LEZ?

#### Use public transport more:

- Women more likely than men to act (60% vs 39%)
- 18-34 year olds more likely than any other age group to act (62% vs 35-54 (46%) 55-74 (44%) 75+ (36%))
- Those in favour more likely to act than those opposed (52% vs 40%)
- Those who travel weekends only are more likely to act than those who travel everyday (65% vs 42%)
- Hybrid drivers are less likely to act than both petrol and diesel drivers (38% vs 51% and 55%)

#### Walk more:

- 18-34 year olds more likely than any other age group to act (53% vs 35-54 (31%) 55-74 (29%) 75+ (9%))
- ABC1 are more likely than C2DEs to act (38% vs 29%)
- Those in favour are more likely to act than those opposed (40% vs 23%)
- Public transport users are more likely to act than car/motorcycle users (52% vs 38%)
- Edinburgh residents are more likely to act than the rest of Scotland (44% vs 22%)

#### Use park and ride:

- Women are more likely than men to act (35% vs 24%)
- Public transport users are more likely to act than car/motorcycle users (33% vs 22%)
- Diesel drivers are more likely to act than electric and petrol drivers (39% vs 13% and 28%)

#### Make no changes at all:

- ABC1 more likely to act than C2DEs (90% confidence level) (29% vs 23%)
- Diesel drivers are less likely to act than petrol and hybrid drivers (19% vs 28% and 36%)

#### Upgrade my vehicle:

- Those in favour more likely to act than those opposed (20% vs 12%)
- Those travelling everyday are more likely to act than weekend only travellers (21% vs 6%)

#### Avoid the city centre LEZ:

- C2DE are more likely to act than ABC1s (15% vs 8%)
- Those in favour are less likely to act than those opposed (7% vs 19%)
- Diesel drivers are more likely to act than any other drivers (23% vs electric (0%), petrol (8%), hybrid (4%))

#### Car share in a compliant vehicle:

- Women are more likely to act than men (12% vs 6%)
- Those with no understanding of the boundary are more likely to act than those with an understanding (14% vs 6%)

## Sub-group analysis for Q15 cont.:

### How likely are you to take the following actions as a consequence of the introduction of the city centre LEZ?

#### Apply for LEZ support funds:

- C2DE are more likely to act than ABC1s (11% vs 6%)
- Those in the city centre are more likely to act than those in other parts of Edinburgh (19% vs 9%)

#### Not travel to Edinburgh at all:

- Those opposed more likely than those in favour (15% vs 2%)
- Diesel drivers are more likely than petrol drivers (15% vs 5%)

#### Cycle more:

- Men are more likely to act than women (9% vs 4%)
- ABC1s are more likely to act than C2DEs (8% vs 3%)
- Those that travel everyday are more likely to act than those who travel another mix of days (11% vs 4%)
- Edinburgh residents are more likely to act than the rest of Scotland (10% vs 1%)

#### Apply for other sustainable travel grants:

- Edinburgh residents are more likely to act than the rest of Scotland (9% vs 1%)
- City centre residents are more likely to act than those in other parts of Edinburgh (16% vs 7%)

#### Use taxis / private hire cars more:

- 18-34 year olds are more likely to act than 55-74 year olds (8% vs 3%)
- Diesel drivers are more likely to act than petrol drivers (90% confidence level) (8% vs 3%)

#### Give up my vehicle:


- Men are more likely to not act than women (95% vs 89%)
- Those that travel everyday more likely to act than those that travel another mix of days (7% vs 2%)
- Diesel drivers more likely to act than petrol drivers (9% vs 2%)

#### Join a car club:

- Women are more likely to act than men (4% vs 1%)
- Those that travel everyday more likely to act than those that travel another mix of days (4% vs 1%)



# Appendix B: Initial meeting notes



**City of Edinburgh Council  
Low Emission Zone, Wave 3  
Initial Meeting: 15 February 2024**

**Present**  
George King and Jacqueline Allan CEC; Sarah Ainsworth and Valerie Strachan Progressive

**Background**  
George noted that there have been two waves of the LEZ monitoring to date:

- 2022 Benchmarking Study was carried out to coincide with the introduction of the scheme (May 2022). The sample was c600 people and covered a mix of residents from the LEZ area, residents from the rest of CEC and visitors to Edinburgh.
- 2023 Study (April/May 2023) was carried out to was carried out around a year was designed to gauge any changes to understanding and awareness. The core sample for this was also c.600 and replicated that used in 2022. In addition, a sample of van drivers was included to test their awareness of the LEZ.

The 2024 Study will be undertaken slightly earlier in the year than previously (likely to be March), just shortly before full implementation of the scheme – that is, just before non-compliant drivers will face penalties for entering the LEZ. In part the timing is dictated by funding for the work (2023/24 budget), but it also relates to the scheduling of publicity which will be running to inform the public about the LEZ, to ensure they are aware of the impending penalty charges for non-compliant vehicles. Publicity about the scheme will be delivered at a local level by the City Council and at a nation level by Transport Scotland.

**Scope of the 2024 study**  
The Study will revert to the '2022 sample': a mix of residents from the LEZ area, residents from the rest of CEC and visitors to Edinburgh. As far as possible, the sample will reflect the profile of the sample achieved in 2022 and the core sample achieved in 2023. This will permit comparison across all three waves.

There is not a requirement to include a sample of van drivers – the 2023 study demonstrated that this audience has a good understanding of the LEZ requirements.

**Next steps**  
Approximate timings were agreed:  
Proposal: w/c 19<sup>th</sup> February  
Fieldwork: 11<sup>th</sup> March - 8 April  
Reporting w/c 22<sup>nd</sup> April

Proposal  
The proposal will include a clear timing plan.  
|

11223 CEC – LEZ Wave 3: Note of initial Meeting 15 February 2024 1

# Appendix C: research tools

## Letter of authority



Date: 6<sup>th</sup> March 2024

Dear Sir/Madam

### **The City of Edinburgh Council – Low Emissions Zone Research**

This letter authorises the bearer to carry out a survey on behalf of the City of Edinburgh Council. The bearer is employed by an independent market research company, Progressive Partnership, and will show you a personal photographic identity card.

If you have any doubts about the authenticity of this [identification](#) you may call Susan Cummins at Progressive Partnership on 0131 316 1900 or contact the City of Edinburgh Council at the number below for further verification.

The survey will be carried out during March and April 2024. The survey will help the City of Edinburgh Council to better understand how individuals will adapt to the forthcoming city centre Low Emission Zone.

We are most grateful to you for taking the time to participate in the survey. This is your opportunity to let the Council know your opinions and your assistance is greatly appreciated. However, if you do not wish to participate, please notify the interviewer. You can also opt out at any point during the survey.

**The interview will be completely confidential.** Details of individuals responding will **not** be passed on to officers of the City of Edinburgh Council or to anyone else.

If you would like any further information or have any queries about the survey, please contact the Low Emission Zone team at the Council at [low.emission.zone@edinburgh.gov.uk](mailto:low.emission.zone@edinburgh.gov.uk) and on 0131 529 6698.

Thanking you in advance for your co-operation.

Yours faithfully,

A handwritten signature in black ink, appearing to read "George King".

*George King, Transport Officer*

Low Emission Zone (LEZ) Team, The City of Edinburgh Council, Waverley Court G3, 4 East Market Street, Edinburgh, EH8 8BG

Find out more online at: [edinburgh.gov.uk/lez](http://edinburgh.gov.uk/lez) and [lowemissionzones.scot](http://lowemissionzones.scot)



## Questionnaire

### City of Edinburgh Council

### LEZ City Centre Research Wave 3

March 2024

Good morning/afternoon, I am [NAME] from Progressive, an independent market research company which is carrying out a survey on behalf of the City of Edinburgh Council about the new Edinburgh city centre Low Emission Zone. This was introduced on 31 May 2022 and affects vehicles driving within the city centre. The interview will take about [12] minutes to complete. Would you like to take part?

Outcome:

	CODE	ROUTE
Yes	1	Continue
No	2	CLOSE

Before I start, I just need to give you a few details about the research. This survey may include collecting information about you such as your age or gender, but you do not have to answer these questions if you prefer not to. Your personal details will not be passed to the Council or to any other third parties.

You are free to withdraw at any stage of the research, including withdrawing permission after the survey to use the information you provided. I can give you contact details for Progressive at the end of the interview if you would like.

REASSURE IF NECESSARY:

The survey is completely confidential, in accordance with the Market Research Society Code of Conduct. The answers you give in the survey will be combined with answers from other people who have taken part to give overall survey findings. No one will be able to identify you individually from the data.

I have a copy of Progressive’s privacy statement if you would like to read it.

Consent

Are you happy to continue with the survey?

	CODE	ROUTE
Yes	1	Continue
No	2	CLOSE

SQ1: Interviewer location

	CODE
Edinburgh Waverley Station / New Street	1
Thistle parking / Semple Street car parks	2
Omni Centre	3

NCP Castle Terrace	4
Princes Exchange	5
Q-Park Quartermile	6
NCP Grindley Street	7
NCP Edinburgh, Holyrood Road	8
Other city centre - specify	9

SQ2: Do you own or have access to a vehicle for your personal use?

	CODE	ROUTE
Yes, I have my own car or van	1	CONTINUE
Yes, I have a company car	2	CONTINUE
Yes, I have a motorcycle or moped	3	CONTINUE
Yes, I am a member of the City Car Club	4	CONTINUE
No, none of the above	5	CLOSE

SQ3: Where do you live?

	CODE	ROUTE
Edinburgh	1	SQ4
Clackmannanshire	2	SQ5
East Lothian	3	
Falkirk	4	
Fife	5	
Midlothian	6	
West Lothian	7	
Elsewhere in Scotland	8	SQ3a
Outside Scotland	9	Close

**ASK IF SQ3 = 8**

SQ3a: Which local authority area do you live in?

	CODE	ROUTE
Aberdeen City	1	SQ5 but track
Aberdeenshire	2	
Angus	3	
Argyll & Bute	4	
Dumfries & Galloway	5	
Dundee City	6	
East Ayrshire	7	
East Dunbartonshire	8	
East Renfrewshire	9	
Comhairle nan Eilean Siar (Western Isles )	10	
Glasgow City	11	
Highland	12	
Inverclyde	13	
Moray	14	
North Ayrshire	15	
North Lanarkshire	16	
Orkney Islands	17	
Perth & Kinross	18	

Renfrewshire	19	
Scottish Borders	20	
Shetland Islands	21	
South Ayrshire	22	
South Lanarkshire	23	
Stirling	24	
West Dunbartonshire	25	

Ask if SQ3 = 1

SQ4: Please look at this map [Show LEZ boundary map]. Which of the following best describes where you live?



	CODE
I live in Edinburgh City Centre	1
I live in another part of Edinburgh	2

ASK IF SQ4=2

SQ4a: What is the first part of your post code?

ASK IF SQ3 = 2~8 OR SQ4 = 2

SHOW MAP OF THE CITY CENTRE AREA

SQ5: Which of the following describes why you visit Edinburgh city centre? Select all that apply

	CODE	
Work	1	
Operate a business	2	
Other business activities, for example attend meetings, make deliveries, etc	3	
Study - attend university or college	4	
Visit for leisure, shopping, cultural, family, etc.	5	
Appointments – school drops, medical, etc.	6	
Other – specify	7	
I never visit the city centre <i>*Exclusive</i>	8	CLOSE

ASK IF SQ4 = 1

SHOW MAP OF THE CITY CENTRE AREA

SQ6: As well as living in the city centre which, if any, of the following do you do within the city centre boundary? *Select all that apply*

	CODE
Work	1
Operate a business	2
Other business activities, for example attend meetings, make deliveries, etc	3
Study - attend university or college	4
Visit for leisure, shopping, cultural, family, etc.	5
Appointments – school drops, medical, etc.	6

Other – specify	7
None of these	8

SQ7. Are you a...?

SINGLE CODE	Code
Man (including trans man)	1
Woman (including trans woman)	2
Other	3
Prefer not to say	4

SQ8. How old are you? QUANTITY VARIABLE

*Prefer not to say*

ASK IF SQ8 = PNTS

1. Which of the following age groups are you in?

SINGLE CODE	Code
18-24	1
25-34	2
35-44	3
45-54	4
55-64	5
65-74	6
75+	7
Prefer not to say	8

## Survey Questions

### Travel behaviour

ASK ALL

1. Currently how often do you use the following modes of transport to travel around, or to and from Edinburgh’s city centre, for personal and/or business reasons? Please choose from: every day, at least once a week, at least once a month, less often, never but could if I chose to, or I don’t have this option. **INTERVIEWER: Ask respondents to self-complete.**

SINGLE CODE/RANDOMISE

	Every day	At least once a week	At least once a month	Less than once a month	Never, but could if I chose to	I don’t have this option/ NA
Walk	1	2	3	4	5	6
Wheelchair (wheeling)	1	2	3	4	5	6
Bicycle or scooter	1	2	3	4	5	6
Electric bike or e-scooter	1	2	3	4	5	6

Bus or coach	1	2	3	4	5	6
Motorcycle or moped	1	2	3	4	5	6
Car – driver	1	2	3	4	5	6
Car – passenger	1	2	3	4	5	6
Tram	1	2	3	4	5	6
Taxi or private hire car	1	2	3	4	5	6
Train	1	2	3	4	5	6

2. When do you normally tend to travel to, from or around the city centre, for personal and/or business reasons?

SINGLE CODE

	Code
Every day (Monday – Sunday)	1
Every weekday (Monday – Friday)	2
Part week (2- 3 days per week)	3
Weekends only (Saturdays and/or Sundays)	4
Other mix of days	5

Low Emission Zones (LEZs) were introduced in May 2022 in Edinburgh, Glasgow, Aberdeen and Dundee. All four local authorities, together with the Scottish Government agree that more needs to be done to tackle air pollution on their roads.

The LEZs work by restricting the most polluting vehicles' access to key streets – or areas – in these cities. Any vehicles that do not meet the minimum emission standards set for the LEZ may not be driven within the zone. If a non-compliant vehicle drives within the zone, the registered keeper will be liable to pay a penalty charge (a type of fine).

The LEZ in Edinburgh has been in operation across the whole of the City Centre since 31<sup>st</sup> May 2022. People have been given a grace period of two years to prepare before the enforcement stage – that is before any penalty charges are issued - begins on 1<sup>st</sup> June 2024.

**Awareness of the scheme**

3. Tell me, how well informed about the Low Emission Zone for Edinburgh City Centre would you say you were before this interview today? Please score this using a scale out of ten, where 1 is not at all informed, and 10 is extremely well informed.

SINGLE CODE

	Code
1 Not at all informed	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10 Extremely well informed	10
Don't know	11

INTERVIEWER– SHOW MAP OF LEZ BOUNDARY [as before]

4. This map shows the boundary of the LEZ. It will cover Edinburgh City Centre. How good was your understanding of the Edinburgh LEZ boundary before this interview today? Again, could you score this out of ten, where 1 means no understanding of the boundary, and 10 means a really good understanding.

SINGLE CODE

	Code
1 No understanding of the boundary	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10 Really good understanding	10
Don't know	11

5. The following statements describe how the LEZ will work in Edinburgh City Centre. Please tell me how informed you were of how the LEZ would operate before this interview today. If you could use a scale of 1 to 10, with 1 being not at all informed, and 10 extremely well informed.  
**INTERVIEWER: Ask respondents to self-complete.**

SINGLE CODE/RANDOMISE

	1: Not at all informed	2	3	4	5	6	7	8	9	10: Extremely well informed	DK
You do not need to have an electric car to drive into the LEZ, modern petrol and diesel cars will usually also meet the LEZ minimum standards	1	2	3	4	5	6	7	8	9	10	11
Motorbikes and mopeds are allowed to drive in the LEZ	1	2	3	4	5	6	7	8	9	10	11
The LEZ will be in operation 24 hours a day, all year round (including public holidays)	1	2	3	4	5	6	7	8	9	10	11
Automatic number plate recognition cameras will	1	2	3	4	5	6	7	8	9	10	11



be used to identify the vehicles which do not comply with the LEZ minimum standard												
Residents and visitors to the city have a grace period of two years, from 31 <sup>st</sup> May 2022, to prepare their vehicles to comply with the LEZ minimum standards, before any penalty charges (fines) are issued	1	2	3	4	5	6	7	8	9	10	11	
Drivers with a Blue Badge will be exempt from LEZ penalty notices (fines).	1	2	3	4	5	6	7	8	9	10	11	
The LEZ will contribute to improving air quality in the city centre	1	2	3	4	5	6	7	8	9	10	11	
The LEZ will contribute to improving air quality across the whole city	1	2	3	4	5	6	7	8	9	10	11	
The LEZ will help the city achieve its net zero 2030 climate change target	1	2	3	4	5	6	7	8	9	10	11	

6. The fines for LEZs in Scotland are set nationally by the Scottish Government. Local councils do not have powers to amend these. Which of the following, as far as you are aware, best describes the fines set for non-compliant cars and vans that drive into an LEZ?

MULTICODE

	Code
A daily charge of £15 per journey for vehicles that are non-compliant	1
A fine of £60, reduced to £30 if paid in 14 days for vehicles that are non-compliant	2
A £60 fine that doubles for repeated breaches – capped at £480	3
Don't know <i>*Exclusive</i>	4

INTERVIEWER NOTE: ONCE THEY HAVE ANSWERED THE QUESTION YOU CAN CONFIRM THAT THE CHARGE WILL BE £60 FOR THE INITIAL BREACH (£30 IF THEY PAY WITHIN 14 DAYS), AND WILL DOUBLE FOR SUBSEQUENT BREACHES, UP TO £480. AFTER 90 DAYS, IF THERE HAVE BEEN NO FURTHER BREACHES, IT GOES BACK TO £60 AGAIN. HIGHER PENALTY CHARGES ARE APPLIED TO BUSES AND COACHES.

We can point people to the website if they are still confused [Low Emission Zone penalty charges – The City of Edinburgh Council](#)

### Support for LEZ

7. As I mentioned earlier, Edinburgh’s LEZ came into force on the 31<sup>st</sup> May 2022 and from 1<sup>st</sup> June 2024 vehicles using the city centre will have to comply with the LEZ minimum standards. Tell me, to what extent are you in favour of the City Centre LEZ?

SINGLE CODE

	Code
Strongly in favour	1
Somewhat in favour	2
Somewhat opposed	3
Strongly opposed	4
Don’t know	5

### Benefits of the LEZ

ASK ALL

8. The following are some of the benefits for the city that will come from the introduction of the LEZ. How aware of these impacts of Low Emission Zones would you say you are? Please use a scale of 1 to 10, with 1 being not at all aware, and 10 extremely aware. **INTERVIEWER: Ask respondents to self-complete.**

SINGLE CODE/RANDOMISE

	1: Not at all aware	2	3	4	5	6	7	8	9	10: Extremely aware
Reduce air pollution from vehicle emissions to protect public health.	1	2	3	4	5	6	7	8	9	10
Reduce carbon emissions to address the city’s climate change 2030 target	1	2	3	4	5	6	7	8	9	10
Make the city centre a more attractive place to live, work and to visit by making it more pedestrian focused	1	2	3	4	5	6	7	8	9	10
Accelerate the uptake of lower emission vehicles	1	2	3	4	5	6	7	8	9	10
Cleaner vehicles benefit all the areas they travel through, not just the LEZ	1	2	3	4	5	6	7	8	9	10
Encourage people to consider using public transport and active	1	2	3	4	5	6	7	8	9	10

travel methods instead of driving										
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9. And thinking of each of these impacts in turn, how important or unimportant would you say they will be for the people of Edinburgh? Please use a scale of 1 to 10, with 1 being not at all important, and 10 extremely important. **INTERVIEWER: Ask respondents to self-complete.**

	1: Not at all important	2	3	4	5	6	7	8	9	10: Extremely important
Reduce air pollution from vehicle emissions to protect public health.	1	2	3	4	5	6	7	8	9	10
Reduce carbon emissions to address the city's climate change 2030 target	1	2	3	4	5	6	7	8	9	10
Make the city centre a more attractive place to live, work and to visit by making it more pedestrian focused	1	2	3	4	5	6	7	8	9	10
Accelerate the uptake of lower emission vehicles	1	2	3	4	5	6	7	8	9	10
Cleaner vehicles benefit all the areas they travel through, not just the LEZ	1	2	3	4	5	6	7	8	9	10
Encourage people to consider using public transport and active travel methods instead of driving	1	2	3	4	5	6	7	8	9	10

**Behaviour change**

ASK IF SQ2 = 1, 2, 3

**All with car, motorbike, scooter**

10.To the best of your knowledge, does your current vehicle meet the LEZ's minimum standards?

**INTERVIEWER NOTE: Rough guide: if asked the current minimum standard is Euro 4 for petrol cars/vans (generally vehicles registered after 2006) and Euro 6 for diesel cars/vans (generally those registered after Sept 2015) All motorbikes, scooters comply.**

	Code
Definitely meets the standard	1
Probably meets the standard	2
Probably does not meet the standard	3
Definitely does not meet the standard	4
Don't know	5

10a. Are you aware of the national vehicle checker?

SINGLE CODE	Code
Yes – I am aware of it and have used it	1
Yes – I am aware of it, but have never used it	2
No – I am not aware of it	3
Prefer not to say	4

ASK IF SQ2 = 1, 2, 3

**All with car, motorbike, scooter**

11. To the best of your knowledge, what fuel type does your vehicle use?

	Code
Electric only	1
Petrol only	2
Petrol hybrid	3
Diesel hybrid	4
Diesel only	5
LPG	6
Other write in	7
Don't know	8

INTERVIEWER NOTE: Rough guide: if asked the current minimum standard is Euro 4 for petrol cars/vans (generally vehicles registered after 2006) and Euro 6 for diesel cars/vans (generally those registered after Sept 2015) All motorbikes, scooters comply.

ASK IF Q10 =1,2

**All that meet the standard**

12. Have you replaced your vehicle in the last two years?

	Code
Yes	1
No	2

ASK IF Q12 = 1

**All that have replaced their vehicle**

13. Which of the following best describes why you replaced your vehicle in the last two years? *Select all that that apply*

RANDOMISE

	Code
I replace my vehicle regularly	1
The previous vehicle was in need of repairs/damaged/etc	2
I wanted to upgrade to a more environmentally friendly vehicle	3
I wanted to upgrade to a more efficient vehicle	4
I needed a bigger/smaller car for family/personal reasons	5
I wanted a car that would meet the new LEZ standards	6
Other reason – specify <i>*Fixed * Open</i>	7

ASK AS NOTED IN FIRST COLUMN

14. Which of the following have you already done, as a consequence of the introduction of the City Centre LEZ?

RANDOMISE

		Yes	No	Don't know	NA
ALL	a. Upgrade my vehicle	1	2	3	
ALL	b. Give up my vehicle	1	2	3	
ALL	c. Join a car club	1	2	3	
ALL	d. Car share in a compliant vehicle	1	2	3	
SQ3=2~8, SQ4=2	e. Avoid the City Centre LEZ area	1	2	3	
SQ3=2~8	f. Not travel to Edinburgh at all	1	2	3	NA
ALL	g. Walk more	1	2	3	
ALL	h. Cycle more	1	2	3	
ALL	i. Use public transport more (buses, tram, train)	1	2	3	
ALL	j. Use taxis / private hire cars more	1	2	3	
SQ3=2~8, SQ4=2	k. Use park and ride (park outside the city centre and then use public transport)	1	2	3	NA
ALL	l. Apply for LEZ support funds for low income households to help upgrade my vehicle	1	2	3	NA
ALL	m. Apply for other sustainable travel grants	1	2	3	NA
ALL	n. Make no changes at all <i>*Fixed</i>	1	2	3	

15. How likely are you to take the following actions as a consequence of the introduction of the City Centre LEZ?

RANDOMISE

		Very likely	Fairly likely	Not very likely	Not at all likely	Don't know	NA
ALL	a. Upgrade my vehicle	1	2	3	4	5	
ALL	b. Give up my vehicle	1	2	3	4	5	
ALL	c. Join a car club	1	2	3	4	5	
ALL	d. Car share in a compliant vehicle	1	2	3	4	5	

SQ3=2~8, SQ4=2	e. Avoid the City Centre LEZ area	1	2	3	4	5	
SQ3=2~8	f. Not travel to Edinburgh at all	1	2	3	4	5	NA
ALL	g. Walk more	1	2	3	4	5	
ALL	h. Cycle more	1	2	3	4	5	
ALL	i. Use public transport more (buses, tram, train)	1	2	3	4	5	
ALL	j. Use taxis / private hire cars more	1	2	3	4	5	
SQ3=2~8, SQ4=2	k. Use park and ride (park outside the city centre and then use public transport)	1	2	3	4	5	NA
ALL	l. Apply for LEZ support funds for low income households to help upgrade my vehicle	1	2	3	4	5	NA
ALL	m. Apply for other sustainable travel grants	1	2	3	4	5	NA
ALL	n. Make no changes at all <i>*Fixed</i>	1	2	3	4	5	

ASK IF Q15 e = 1,2

16.You said it was likely you would avoid the City Centre LEZ area – why is that? – OPEN

ASK IF Q15 e = 3,4

17.You said it was unlikely you would avoid the City Centre LEZ area – why is that? – OPEN

ASK IF Q15 n = 1,2

18.You said it was likely you would make no changes at all as a consequence of the City Centre LEZ – why is that? – OPEN

### Classification

The final few questions are for classification purposes....

19.Which of the following groups does the Chief Income Earner in your household belong to?

The Chief Income Earner is the person in the household with the largest income, regardless of how this income is obtained. If the Chief Income Earner is retired and has an occupational pension, please select according to the previous occupation. If the Chief Income Earner is not in paid employment and has been out of work for less than 6 months, please select according to previous occupation.

SINGLE CODE	Code
Semi or unskilled manual worker (e.g. manual jobs that require no special training, park keeper, non-HGV driver, shop assistant etc.)	1
Skilled manual worker (e.g. skilled bricklayer, carpenter, plumber, painter, bus driver, HGV driver, unqualified assistant teacher, pub/bar worker, etc.)	2
Supervisory or clerical/ junior managerial/ professional/ administrator (e.g. office worker, student doctor, foreman with 25+ employees, sales person, student teachers etc.)	3

Intermediate managerial/ professional/ administrative (e.g. newly qualified (under 3 years) doctor/solicitor, board director small organisation, middle manager in large organisation, principal officer in Civil Service/local government etc.)	4
Higher managerial/ professional/ administrative (e.g. established doctor, solicitor, board director in large organisation (200+ employees), top level civil servant/ public service employee, head teacher, etc.)	5
Student	6
Retired and living on state pension only	7
Unemployed (for over 6 months) or not working due to long term sickness	8
Prefer not to say	9

20. Do you have a physical or mental health condition or illness lasting or expected to last 12 months or more?

SINGLE CODE	Code
Yes	1
No	2
Don't know	3
Prefer not to say	4

**ASK IF Q20 =1**

21. Does this condition or illness affect you in any of the following areas?

MULTICODE	Code
Vision (e.g. blindness or partial sight)	1
Hearing (e.g. deafness or partial hearing)	2
Mobility (e.g. walking short distances or climbing stairs)	3
Dexterity (e.g. lifting or carrying objects, using a keyboard)	4
Learning or understanding or concentrating	5
Memory	6
Mental health	7
Stamina or breathing or fatigue	8
Socially or behaviourally (e.g. associated with autism, attention deficit disorder or Aspergers' syndrome)	9
Other (specify)	10
None of the above	11
Prefer not to say	12

ASK ALL

22. Do you have a Blue Badge?

SINGLE CODE	Code
Yes	1
No	2
Don't know	3
Prefer not to say	4

### 23. What is your ethnic group?

SINGLE CODE			
<b>White</b>		Indian, Scottish Indian or British Indian	11
Scottish	1	Bangladeshi, Scottish Bangladeshi or British Bangladeshi	12
Other British	2	Chinese, Scottish Chinese or British Chinese	13
Irish	3	Other, please write in	14
Polish	4	<b>African, Scottish African or British African</b>	
Gypsy/traveller	5	Please write in (for example, Nigerian, Somali)	15
Roma	6	<b>Caribbean or Black</b>	
Showman/Showwoman	7	Please write in (for example, Scottish Caribbean, Black Scottish)	16
Other white ethnic group, please write in	8	<b>Other ethnic group</b>	
<b>Mixed or multiple ethnic groups</b>		Arab, Scottish Arab or British Arab	17
Any mixed or multiple ethnic groups, please write in	9	Other, please write in (for example, Sikh, Jewish)	18
<b>Asian, Scottish Asian or British Asian</b>		<b>Prefer not to say</b>	19
Pakistani, Scottish Pakistani or British Pakistani	10		

#### BACK-CHECKING:

As part of our quality control procedures we aim to re-contact 20% of respondents to confirm their satisfaction with the interview and that details were recorded correctly. Could we please use your email address or telephone number for these purposes?

[Collect contact details as usual]

#### OUTRO:

Thank you for taking part in this research survey.

You have the right to access the information you have provided in this survey, and to withdraw consent to process this information after taking part. We will only hold your personal details for a limited time, usually a month after the end of the project. If you decide you want to withdraw consent, here is the information you need in order to let us know [HAND OUT THANK YOU LEAFLET].

I can give you contact details for Progressive if you would like.



# Appendix D: Technical appendix

## Method / Quantitative

1. The data was collected by CAPI survey.
2. The target group for this research study was people living in, travelling to and through the Edinburgh LEZ area. All had to be car owners living within Scotland.
3. The sample type was non-probability. Respondents were selected using a stratified random sampling technique, where interviewers worked to specified quota controls on key sample criteria (sex and age), and selected respondents randomly within these quotas.
4. The target sample size was 700 and the final achieved sample size was 636.
5. Fieldwork was undertaken between 4<sup>th</sup> to 24<sup>th</sup> March 2024.
6. Quota controls guided the sample selection for this study. This means that statistically precise margins of error or significance testing are not appropriate, as the sampling type is non-probability. The margins of error outlined below are therefore indicative, based on an equivalent probability sample.
7. In total, 13 interviewers worked on data collection.
8. Interviews lasted approximately 13 minutes.
9. Each interviewer's work was validated as per the requirements of the international standard ISO 20252. Validation was achieved by re-contacting (by telephone or email) a minimum of 10% of the sample to check profiling details and to re-ask key questions from the survey. Where telephone details were not available re-contact may have been made by post. All interviewers working on the study were subject to validation of their work.
10. All research projects undertaken by Progressive comply fully with the requirements of ISO 20252, the GDPR and the MRS Code of Conduct.

### Data processing and analysis

11. Quota controls guided the sample selection for this study. This means that statistically precise margins of error or significance testing are not appropriate, as the sampling type is non-probability. The margins of error outlined below are therefore indicative, based on an equivalent probability sample.
12. The overall sample size of 636 provides a dataset with an approximate margin of error of between  $\pm 0.77\%$  and  $\pm 3.89\%$ , calculated at the 95% confidence level (market research industry standard).
13. *We are confident that the achieved sample provides a good representation of the target population.*
14. Our data processing department undertook a number of quality checks on the data to ensure its validity and integrity. Responses were checked to ensure that interviewer and location were identifiable. Any errors or omissions detected at this stage were referred back to the field department, who re-contacted interviewers to check.
15. A computer edit of the data prior to analysis involved both range and inter-field checks. Any further inconsistencies identified at this stage were investigated by reference back to the raw data on the questionnaire.
16. Where 'other' type questions were used, the responses to these were checked against the parent question for possible up-coding.
17. Responses to open-ended questions were sense checked and grouped using a code-frame and analysed by theme. A SNAP programme was set up on order to provide the client with useable and comprehensive data. Crossbreaks were discussed with the client in order to ensure that all information needs are met