

# **Technology Tracker: Wave 10**

**Report prepared for the Department for  
Transport**

**July 2023**

Ben Marshall, Christian Easdown, Holly Day, Pascal Roelcke





# Contents

<b>1</b>	<b>Overview</b>	<b>1</b>
1.1	Awareness and knowledge	1
1.2	Report structure	2
<b>2</b>	<b>Car access and purchase intentions</b>	<b>3</b>
2.1	Ownership of licences and cars	3
2.2	Purchase intentions	3
<b>3</b>	<b>Electric vehicles</b>	<b>6</b>
3.1	Awareness and knowledge	6
3.2	Advantages – prompted	7
3.3	Disadvantages – prompted	8
3.4	Vehicle Excise Duty (VED) exemption changes – awareness	9
3.5	Location of EV charging points	10
3.6	Concerns about using EV charging points	11
<b>4</b>	<b>Self-driving vehicles</b>	<b>13</b>
4.1	Awareness and knowledge	13
4.2	Advantages – prompted	14
4.3	Disadvantages – prompted	15
4.4	Knowledge of rules and regulations	16
<b>5</b>	<b>E-scooters</b>	<b>18</b>
5.1	Awareness and knowledge	18
5.2	Ownership and usage	19
5.3	Purchase intention	20
5.4	Reasons for use	21
5.5	Advantages – prompted	22
5.6	Disadvantages – prompted	23
5.7	Understanding of rules about e-scooter use	24
<b>6</b>	<b>E-cycles</b>	<b>27</b>
6.1	Awareness and knowledge	27
6.2	Ownership	28
6.3	Usage	29
6.4	Reasons for using e-cycles	30
6.5	Purchase intention and use of schemes	31
6.6	Advantages – prompted	32
6.7	Disadvantages – prompted	33
<b>7</b>	<b>Appendix</b>	<b>34</b>
7.1	Methodology	34
7.2	KnowledgePanel methodology	35
7.3	Questionnaire	36

**8 Our standards and accreditations..... 50**

# 1 Overview

Wave 10 of the Transport Technology Tracker series involved a survey of a representative sample of 3,207 adults aged 16+ across England drawn from Ipsos' KnowledgePanel. The survey was conducted using random probability sampling and used an online methodology for data collection. Fieldwork took place between 8<sup>th</sup> December and 14<sup>th</sup> December 2022.

Although this is the 10<sup>th</sup> wave of the survey, due to a change in methodology at Wave 7, it is not possible to provide direct comparisons with Waves 1 to 6. More information about the methodology and sample can be found in the Appendix. The survey questionnaire is also included in the Appendix including the descriptions and images used to measure awareness and knowledge of several transport technologies.

## 1.1 Awareness and knowledge

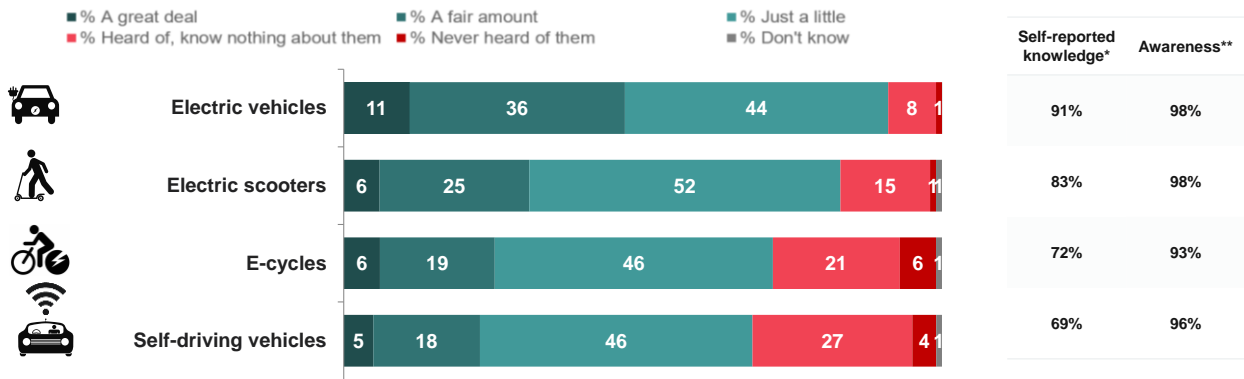
**Figure 1.1** below shows levels of awareness and self-reported knowledge for the range of transport technologies covered by Wave 10. They have been presented in descending order of knowledge and awareness.

'Awareness' encompasses all people who had heard of a particular technology, including those who know nothing (but have heard of the technology), those who know just a little, a fair amount or a great deal. 'Knowledge' is confined to those who said that they know just a little, a fair amount or a great deal, however this knowledge is self-reported i.e. from the perception of the individual.

Individual sections of this report, and the summary sections at the start of each, describe awareness and self-reported knowledge for the technologies, and how these have changed over time. For example:

- There was a decrease in self-reported knowledge of self-driving vehicles between June 2021 (Wave 7) and December 2022 (Wave 10).
- The overall level of self-reported knowledge of e-scooters has remained consistent over waves, however there was a decrease in the proportion who said they know a great deal or a fair amount about e-scooters between June 2021 (Wave 7) and December 2022 (Wave 10).
- There was also decrease in the proportion who said they know a great deal or fair amount about e-cycles over the same period.

**Figure 1.1 – Knowledge and awareness by technology**



\*Self-reported knowledge answer codes: A great deal, A fair amount, Just a little  
 \*\*Awareness answer codes: A great deal, A fair amount, Just a little, Heard of, know nothing about them/it  
 Base: All 16+ in England Wave 10: (3207)  
 Fieldwork dates: Wave 10: 8-14 December 2022

Following the Government’s announcement that owners of battery electric vehicles will no longer be exempt from paying Vehicle excise duty (VED) as of 2025, a new question was included in December 2022 (Wave 10) to measure awareness of this change. A majority of people were aware of the planned changes. However, only a minority of the youngest age group said they knew about this.

**1.2 Report structure**

The remainder of this report covers each of the transport technologies included in Wave 10, describing levels of awareness and self-reported knowledge of each in December 2022 as well as changes over time.

Summary boxes have been included at the start of each section to present key findings and trends. These signpost where further information is available and full survey data is available at:

<https://www.gov.uk/government/publications/transport-and-transport-technology-public-attitudes-tracker>

## 2 Car access and purchase intentions

### Summary

- Overall levels of car ownership and access to a car or van held steady in June 2022 (Wave 9) and December 2022 (Wave 10) but there was an increase from 44% to 48% in the proportion of people who live in households with two or more cars, however fewer people in Wave 10 (December 2022) reported to have household ownership or continual use of one car than Wave 9, decreasing four percentage points from 43% to 39%. (see **section 2.1**).
- People's expectation of the type of vehicle they will buy, or lease, next changed the further into the future they anticipated making that purchase. Among those who expected to purchase within one year, 11% expected to purchase an electric vehicle, 28% a hybrid and 57% a petrol or diesel vehicle. In contrast, among those expecting to purchase or lease in five or more years' time, 22% expected it to be an electric vehicle, 32% a petrol or diesel vehicle and 35% a hybrid (see **section 2.2**).

### 2.1 Ownership of licences and cars

Levels of licence-holding were stable compared to previous waves. In December 2022 (Wave 10), 80% of people said they held a full driving licence, 8% held a provisional licence and 11% did not hold a valid UK driving licence.

In line with previous waves, a majority, 83%, said they personally owned or had continuous use of at least one car or van and a minority; 14% did not.

In December 2022 (Wave 10), 47% of people said their household owned or had continuous use of two or more cars or vans, up from 44% in June 2022 (Wave 9).

### 2.2 Purchase intentions

In line with previous waves, a majority said they will personally buy, lease or replace a car or van, either new or second hand, in the future. In December 2022 (Wave 10), seven in ten, 70%, said they would do this within the next five years and a further 15% said they would in more than five years' time. One in ten, 9%, said they had no intention to buy, lease or replace a car or van, and 6% answered 'don't know'.

- The oldest age groups were more likely to have said they had no intention to buy or replace a car or van. Two in ten of those aged 75 or over (18%) had no intention to do this compared to lower proportions of 16-24-year-olds (7%).
- A higher proportion of lower annual income households had no intention to buy or replace their car or van. Those from households earning less than £25,999 were more likely to have said this (16%) than households earning between £52,000 - £99,000 (4%).

People's expectations of when they expect to next buy, lease or replace a car or van were in line with previous waves. In December 2022 (Wave 10), 32% of people said that they intended to do this within the next two years, including 14% who thought this would happen in the next year. Just under four in ten, 38%, expected to do this in the next two to five years and 15% said they would in more than five years' time.

- Those in the highest annual household income of bracket £100,000 and above were most likely to intend to replace their car within the next year (19%), compared to 11% of those with an annual household income of up to £25,999.
- Owners of petrol and diesel vehicles were most likely to intend to wait at least 5 years to purchase their next vehicle, 17% and 14% respectively, compared to just 4% of electric vehicle owners.

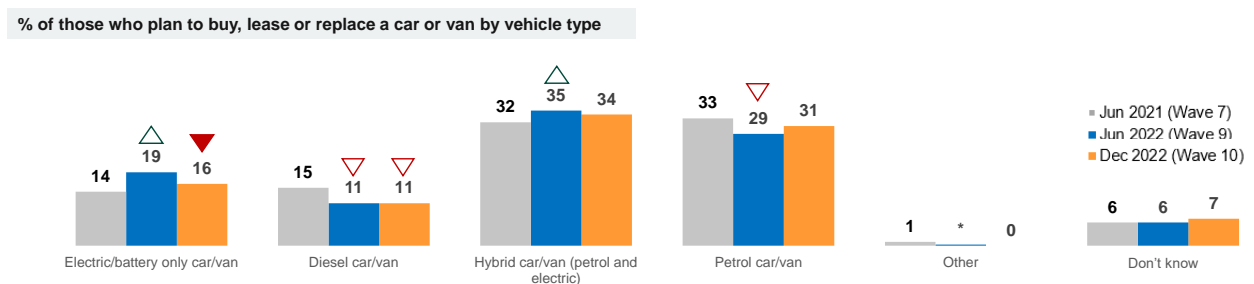
Among those intending to buy or lease a car or van at some point in the future, the proportion who expected this to be ‘new’, remained stable compared to previous waves. This was 27% in December 2022 (Wave 10) while seven in ten (69%) said their next vehicle would more likely be ‘second-hand’.

- 65-74-year-olds were most likely to have said they would be likely to purchase or lease a new car or van (38%) than those aged 16-24 (15%), 25-34 (23%), 35-44 (24%) and 45-54 (27%).
- Those in the highest household income bracket with annual earnings of £100,000 or above (38%) were more likely to have said they would be likely to buy ‘new’ compared to all other income groups – £25,999 or less (25%), £26,000-£51,999 (29%) and £52,000-£99,999 (28%).
- Just over a third, 34%, of those ‘living comfortably’ said they would be more likely to purchase or lease a new car or van compared to 24% of those who said they were ‘finding it difficult’ living on their present income.
- Eight in ten living in households ‘without’ access or ownership of a car or van (79%) said they would be more likely to purchase or lease a second-hand car or van, compared to 67% of those in households that owned or had continuous use of one car or van.

As shown in **Figure 2.1**, the proportion of people who indicated that their next car or van would be ‘electric/battery only’ declined from 19% in June 2022 (Wave 9) to 16% in December 2022 (Wave 10) but was higher than it had been in June 2021 (Wave 7) (14%).

In line with intentions in June 2022 (Wave 9), just over a third, 34%, said that their next purchase or lease was likely to be a hybrid car or van. Similarly, in December 2022 (Wave 10), four in ten, 42%, expected to purchase a petrol or diesel car or van, in line with June 2022 (Wave 9) at 40% but lower than 48% in June 2021 (Wave 7).

**Figure 2.1 – Purchase intention**



Q106. What type of car or van do you think you will most likely purchase or lease next time?  
 Base: All who intend to buy or replace a car/van (Jun 2021: 2655; Jun 2022: 2435; Dec 2022: 2433)

▲ Indicates a statistically significant increase compared to Wave 9  
 ▼ Indicates a statistically significant decrease compared to Wave 9  
 ▲ Indicates a statistically significant increase compared to Wave 7  
 ▼ Indicates a statistically significant decrease compared to Wave 7

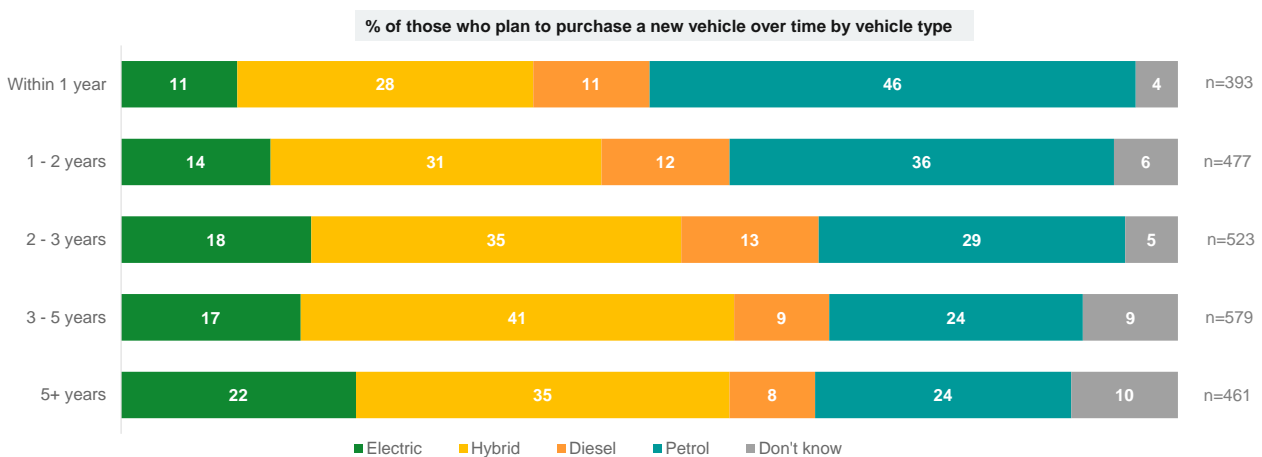


- The likelihood of choosing a hybrid car or van as the next purchase or lease was most popular among older age groups. Four in ten of those aged 75+ (43%) and 55-64-year-olds (41%) said they would do this compared to 25% of 16-24-year-olds.
- In line with previous waves, higher income was associated with a greater likelihood of choosing electric vehicles. More than a third (37%) of those earning more than £100,000 per year said that they were likely to purchase or lease an electric car or van next time compared to 13% of those in households earning up to £25,999, 14% in households earning £26,000-£51,999 and 21% of households earning £52,000- £99,999.
- People living in the South of England were more likely than other regions to have said that they were most likely to purchase or lease an electric car or van next. A fifth (20%) planned to do so compared to 15% in the North and 11% in the Midlands.

People’s expectation of the vehicle type of their next purchase changed the further ahead that purchase was expected to take place. Among those expecting to purchase within one year, 11% expected to purchase an electric/battery only vehicle, 28% a hybrid and 58% a petrol or diesel vehicle. In contrast, among those expecting to purchase in five or more years’ time, 22% expected to purchase an electric vehicle, 32% a petrol or diesel vehicle and 35% a hybrid.

As shown in **Figure 2.2**, hybrid cars or vans were a more popular option than an electric vehicle in the short-term, but the gap narrowed as people looked further into the future. However, uncertainty also increased a little as people looked further ahead - those who said they don’t know what type of vehicle they would purchase or lease next, was 4% in the short-term but 10% in the longer-term.

**Figure 2.2 – Vehicle type purchase intentions by year of expected purchase**



Q106. What type of car or van do you think you would purchase or lease next time? (%)  
 Base: All who intend to buy or replace a car or van (Dec 2022: 2433).

Q104: When, if at all, do you think you will personally next buy, lease or replace a car or van, either new or second hand?  
 Base: All with a UK driving licence (Dec 2022: 2861).

## 3 Electric vehicles

### Summary

- Compared to previous waves, fewer listed advantages were selected. 'Environmental benefits' remained the advantage selected most often across all waves, although decreased since the previous wave. There was also an increase in those saying there are no advantages of electric vehicles (see **section 3.2**).
- 'The lack of charging points' decreased sharply since June 2021 as a perceived disadvantage. Alongside this, there was an increase in recall of seeing charging points less than a mile away, and at petrol stations (see **section 3.5**).
- The 'cost to buy' became the top mentioned disadvantage of electric vehicles. There was also a decrease in the proportion who mentioned 'cheaper to run or maintain' (see **section 3.3**) as an advantage.
- A majority of people were aware of the planned change in 2025 to VED exemptions previously in place for owners of battery electric vehicles. However, only a minority of the youngest age group said they knew this (see **section 3.4**).

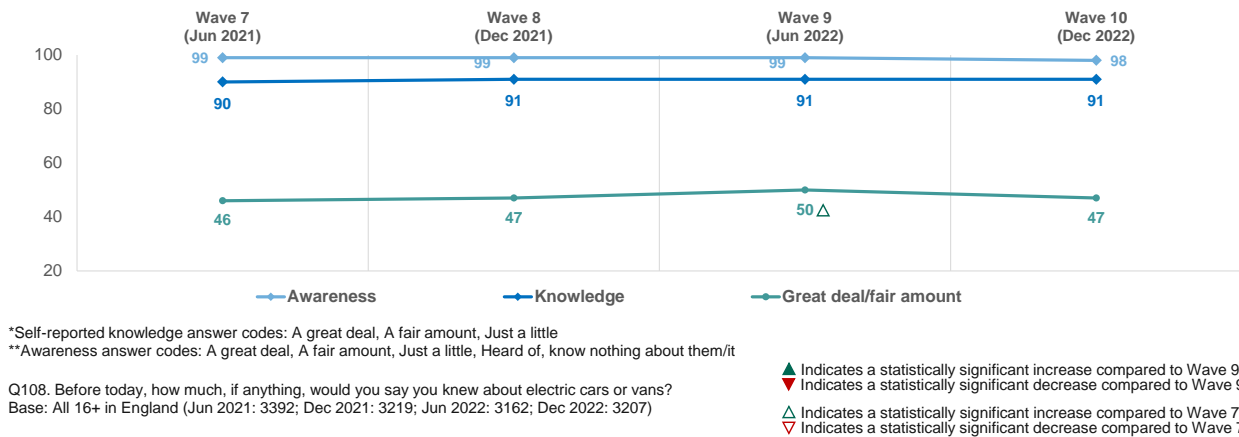
### 3.1 Awareness and knowledge

In December 2022 (Wave 10), levels of awareness and self-reported knowledge of electric cars or vans were in line with those of June 2022 (Wave 9) and June 2021 (Wave 7), as shown in **Figure 3.1**. Almost everyone, 98%, claimed that they had at least heard of electric vehicles including 8% who said that they had heard of electric vehicles but know nothing about them.

Self-reported knowledge of electric vehicles - people knowing a 'great deal', a 'fair amount' or 'just a little' - was 91% in December 2022 (Wave 10). This was consistent with previous waves. While the proportion of those who said they knew a 'great deal/fair amount' had previously increased from 47% in December 2021 (Wave 8) to 50% in June 2022 (Wave 9), it fell back to 47% in December 2022 (Wave 10).

- Self-reported knowledge of electric vehicles was highest among those in households earning over £26,000 (between 93% and 96%) compared to those in households earning less than £25,999 annually. Fewer than nine in ten (85%) of this group reported knowledge
- A higher proportion of those in the highest annual income bracket, households earning £100,000+ per year, said they know a 'great deal/fair amount' (60%) compared to those in the lowest income households earning less than £25,999 per year (39%).
- As in previous waves, three in five men said they know a 'great deal/fair amount' (61%), much higher than the proportion of women (33%).

**Figure 3.1 – Awareness and knowledge of electric vehicles**



### 3.2 Advantages – prompted

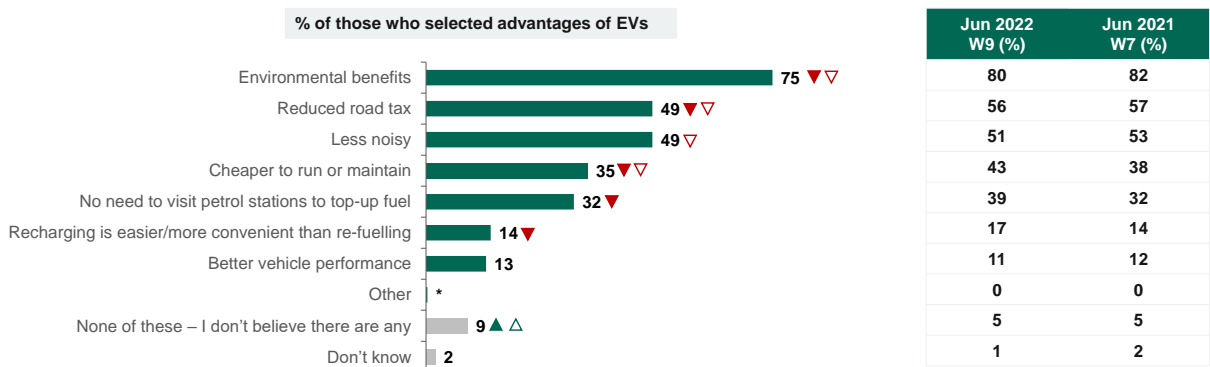
As was the case at previous waves, when shown a list of potential advantages of electric vehicles over petrol or diesel cars or vans, ‘environmental benefits (e.g. reduced pollution)’ remained the advantage selected most frequently. This was chosen by 75% of people in December 2022 (Wave 10), as shown in **Figure 3.2**, a decrease of five percentage points since June 2022 (Wave 9) and seven points since December 2021 (Wave 7).

There were several other decreases in selected advantages when comparing the December 2022 (Wave 10) data to June 2022 (Wave 9) and June 2021 (Wave 7). For example, selection of ‘reduced road tax’ as an advantage decreased seven percentage points from 56% to 49% between June 2022 (Wave 9) and December 2022 (Wave 10). ‘Less noisy’ fell four points from 53% to 49% between June 2021 (Wave 7) and December 2022 (Wave 10).

Selections of electric vehicles being ‘cheaper to run or maintain’ (35%) and ‘no need to visit petrol stations to top-up fuel’ (32%) as advantages decreased eight points and seven points respectively between June 2022 (Wave 9) and December 2022 (Wave 10). Over the same period, there was also an increase in those who said they didn’t believe there are *any* advantages, almost doubling from 5% to 9%. Both ‘cheaper to run’ and ‘reduced road tax’ were selected as advantages by fewer people since June 2022 (Wave 9) and June 2021 (Wave 7).

- Those who said they intend to purchase an electric vehicle as their next vehicle were more likely to select advantages than those who intended to purchase other vehicle types. For example, 91% of this group selected ‘environmental benefits’ compared to 52% of those who intended to buy a diesel vehicle next.
- ‘Better vehicle performance’ was seen as an advantage by three in ten (30%) of those aged 16-24, at least twice the proportion of any other age group e.g. 25-34s (14%) and 75+ (8%).

**Figure 3.2 – Advantages of electric vehicles**



Q111. Which of the following, if any, do you think are advantages of fully electric over petrol or diesel cars or vans?  
 Base: All 16+ in England (Jun 2021: 3392; Jun 2022: 3162; Dec 2022: 3207)

▲ Indicates a statistically significant increase compared to Wave 9  
 ▼ Indicates a statistically significant decrease compared to Wave 9  
 ▲ Indicates a statistically significant increase compared to Wave 7  
 ▼ Indicates a statistically significant decrease compared to Wave 7

### 3.3 Disadvantages – prompted

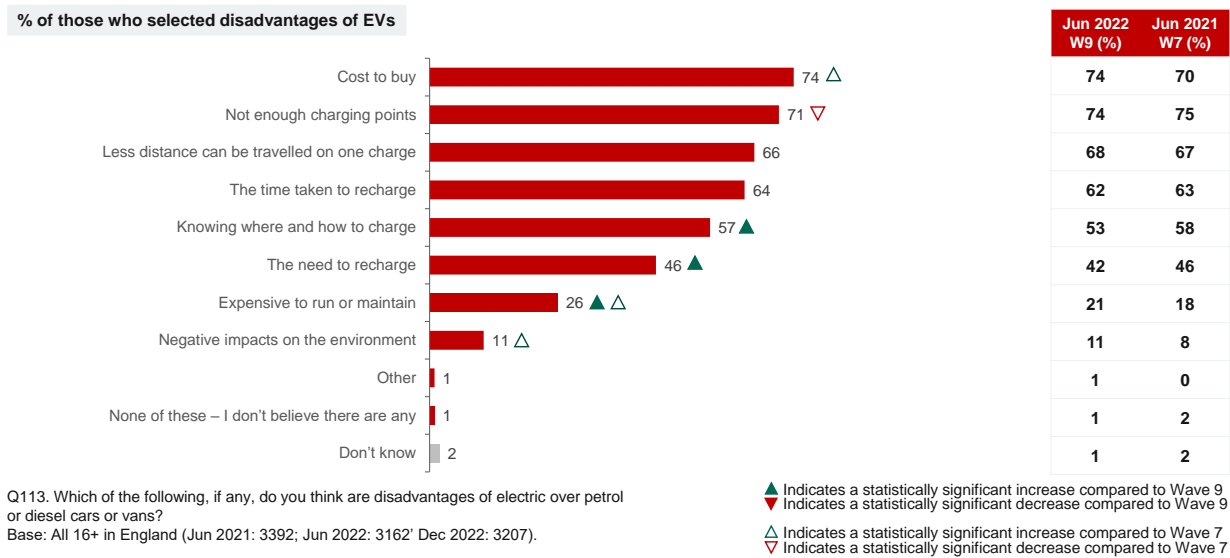
As seen in **Figure 3.3**, when shown a list of potential disadvantages of electric over petrol or diesel vehicles, ‘cost to buy’ was selected as a disadvantage by 74% in December 2022 (Wave 10), in line with June 2022 (Wave 9), but a higher proportion than the 70% in June 2021 (Wave 7). In December 2022 (Wave 10), a lower proportion selected ‘not enough charging points’ (71%) than did so in June 2021 (Wave 7) when it was selected by 75%. This was the only disadvantage selected by a lower proportion of people in December 2022 than in the previous waves.

‘Knowing where and how to charge’ was selected as a disadvantage by 57% in December 2022 (Wave 10), an increase of four percentage points since the 53% in June 2022 (Wave 9). There was also a four point increase in selection of ‘the need to recharge’ from 42% to 46%.

‘Expensive to run or maintain’ was selected as a disadvantage by 26% of people, an increase of five percentage points since 21% in June 2022 (Wave 9) and eight points since 18% in June 2021 (Wave 7).

- A significantly higher proportion of those aged 16-24 chose ‘expensive to run or maintain’ as a disadvantage (37%) than June 2022 (Wave 9), and also compared to all other age groups except for those ages 25-34 (31%).
- Two in five (39%) of those finding it very difficult on present income selected ‘expensive to run or maintain’ as a disadvantage compared to one in five of those living comfortably on present income (20%).
- The ‘cost to buy’ an electric vehicle was selected as a disadvantage more by those living in rural areas (81%) compared to those living in urban areas (72%). Similarly, the ‘distance that can be travelled’ was selected by 74% of those living in rural areas compared to 64% in urban areas.

**Figure 3.3 – Disadvantages of electric vehicles**



**3.4 Vehicle Excise Duty (VED) exemption changes – awareness**

Following the Government’s announcement that owners of battery electric vehicles will no longer be exempt from paying VED as of 2025, a new question was included in December 2022 (Wave 10) to measure awareness of this change. Respondents were provided with a definition of Vehicle Excise Duty (VED) and current payment arrangements as follows:

*Vehicle Excise Duty (VED), commonly known as road tax, is a tax that must be paid to the DVLA once a year, by owners of vehicles which are to be used (or parked) on public roads.*

As seen in **Figure 3.4**, a majority (57%) of people said they were aware of this change, with 42% unaware, and 2% said they did not know.

**Figure 3.4 – Awareness and knowledge of the plans for owners of battery electric vehicles to pay Vehicle Excise Duty (VED) from 2025**



Q401. Before today, were you aware that owners of battery electric vehicles will pay VED from 2025 having previously been exempt?  
 Base: All 16+ in England (Dec 2022: 3207).

- 16-24 year olds were least likely to have been aware of this. Just three in ten (30%) reported that they had heard of the policy compared to a majority of every other age group. Self-reported awareness was highest among 65-74-year-olds (72%).

- Seven in ten (71%) who said they intend to purchase an electric vehicle as their next vehicle said that they were aware of the change, a higher proportion than among those who intended to purchase a petrol vehicle (59%) or hybrid vehicle (61%).

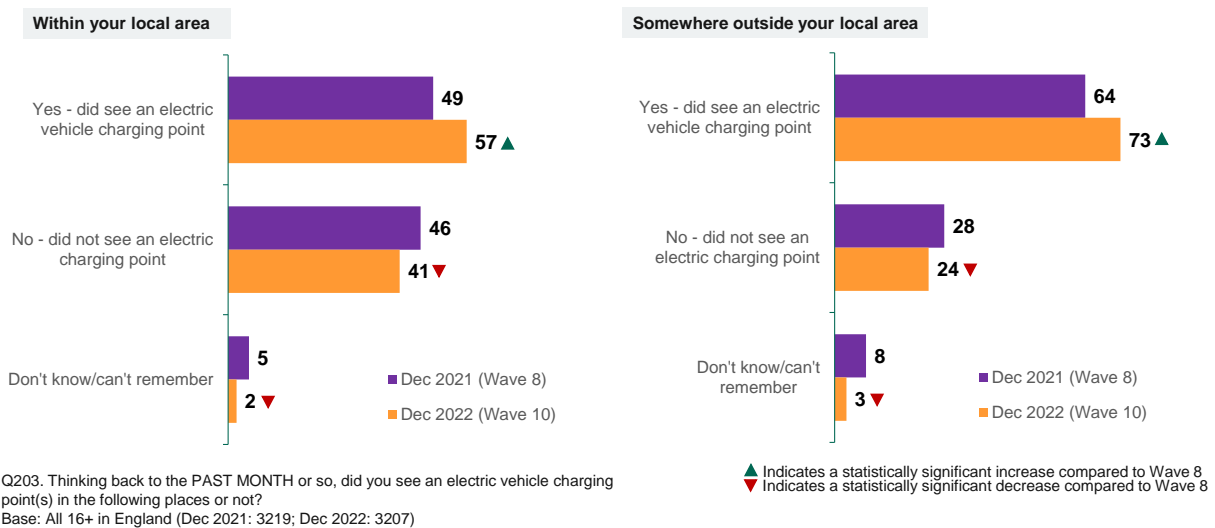
### 3.5 Location of EV charging points

In December 2022 (Wave 10), a majority (57%) reported having seen an electric vehicle charging point in their local area in the past month or so (local was defined as within 15-20 minutes' walk/less than a 5-mile drive). This was an increase of eight percentage points since December 2021 (Wave 8). Four in ten, 41%, said they had *not* seen a charging point in their local area, down five points during the same period, as shown in **Figure 3.5**.

- Recall of charging points was significantly higher among those living in urban areas. Six in ten, 60%, of those living in urban areas said they had seen an electric vehicle charging point in their local area in the past month or so, compared to 44% in rural areas.
- A majority across the North West (52%), the West Midlands (54%) and the South East (55%) said they *had* seen a charging point locally but recall was much higher in London (70%).

Nearly three-quarters (73%) said they had seen a charging point *outside* their local area in the past month. This was an increase of nine percentage points since December 2021 (Wave 8). There was also an decrease in the proportion who said 'don't know/can't remember' whether they had seen one outside their local area.

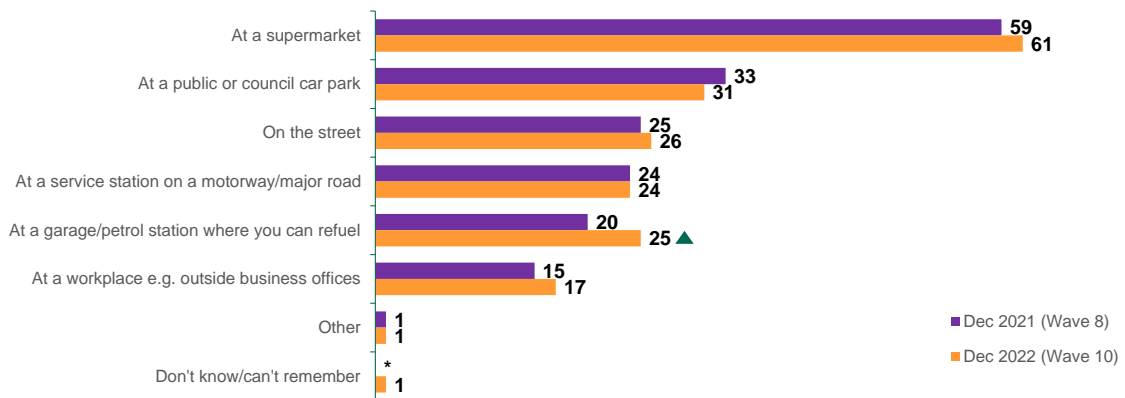
**Figure 3.5 – Recalled location of charging points**



Around six in ten (61%) who recalled seeing a charging point in the past month or so, had seen it at a supermarket. Three in ten (31%) had seen one in a public or council car park. Similar proportions had seen one on the street (26%), a petrol station (25%) and a motorway service station (24%), higher than the 17% who recalled seeing one outside a workplace.

Sightings at petrol stations increased five percentage points from 20% to 25% between December 2021 (Wave 8) and December 2022 (Wave 10), the only significant increase over this period, shown in **Figure 3.6**.

**Figure 3.6 – Location of charging points**

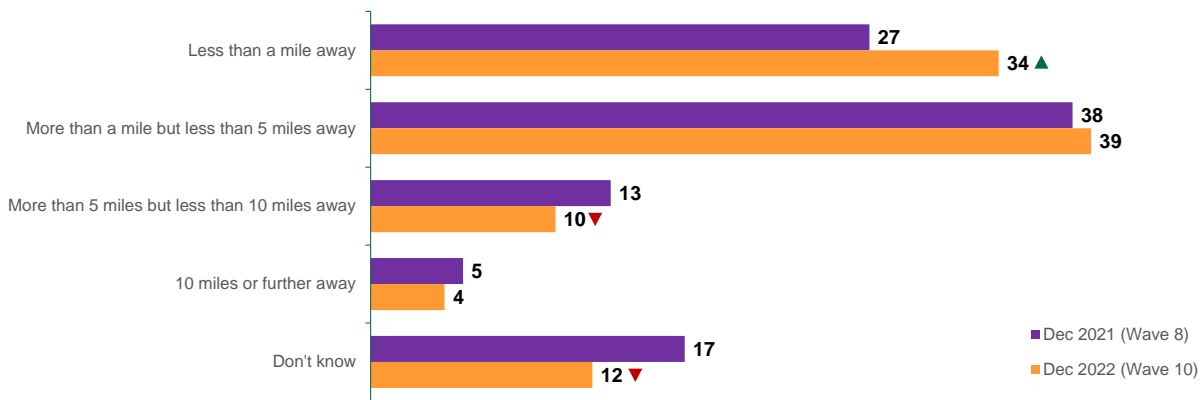


Q204. You said that you have seen an electric vehicle charging point(s) in the past month. Where did you see it/them?  
 Base: All 16+ in England who have seen EV charging points in the past month (Dec 2021: 2535; Dec 2022: 2719)

▲ Indicates a statistically significant increase compared to Wave 8  
 ▼ Indicates a statistically significant decrease compared to Wave 8

Just over a third (34%) said their nearest charging point was within a mile from their home, as shown in **Figure 3.7**. There was an increase of seven percentage points in the proportion who knew of a charging point within a mile of their home between December 2021 (Wave 8) and December 2022 (Wave 10) from 27% to 34%.

**Figure 3.7 – Estimated proximity of charging points**



Q205. Thinking about where you live most of the time, how far away is the nearest charging point for electric vehicles – that is, a point which can be used by any member of the public wanting to charge an electric vehicle?  
 Base: All 16+ in England (Dec 2021: 3219; Dec 2022: 3207)

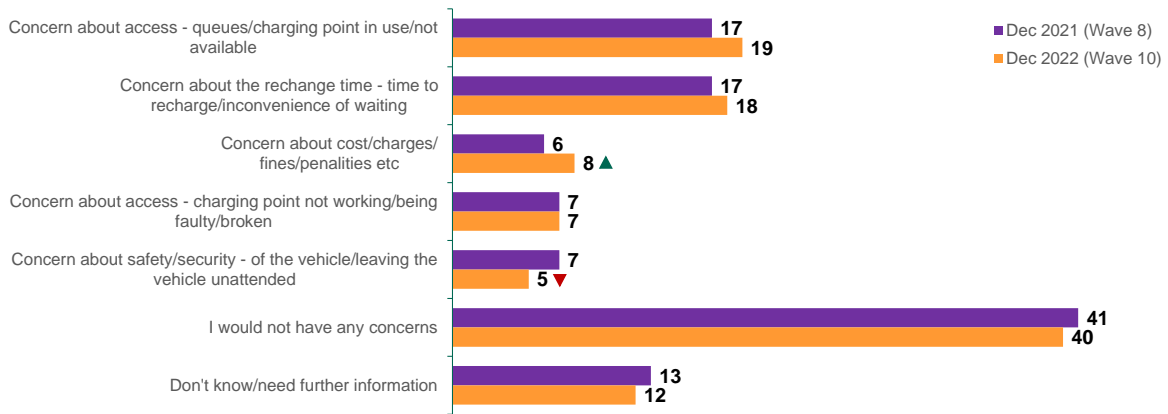
▲ Indicates a statistically significant increase compared to Wave 8  
 ▼ Indicates a statistically significant decrease compared to Wave 8

### 3.6 Concerns about using EV charging points

Concern about using charging points was an open-ended question, with no prompts or response codes provided to survey respondents. Four in ten people, 40%, said that they would have ‘no concerns’ about using an EV charging point. This remained in line with December 2021 (Wave 8). Among those who did have concerns, these most often related to availability - for example ‘access or charge points being in use’ (19%), and waiting times - ‘the time taken to recharge’ (18%). As shown in **Figure 3.8**, concerns about costs, charges or penalties increased between December 2021 (Wave 8) and December 2022 (Wave 10), but concerns about the safety of leaving the vehicle unattended fell over the same period.

- Two in ten of those living in rural areas were concerned about the ‘recharge time’ and ‘inconvenience of waiting’ (21%); a higher proportion than those in urban areas (17%).
- Those who said they intend to purchase an electric vehicle as their next vehicle were most likely to be concerned about the availability of charging (30%) and points being faulty/not working (14%) compared with those intending to purchase other vehicle types.

**Figure 3.8 – Concerns about using EV charging points (unprompted)**



Q206. As you may know, some electric vehicle owners charge their vehicles at charging points situated in public places. What concerns would you have, if any, about using a charging point as this once you had got there?  
 Base: All 16+ in England (Dec 2021: 3219; Dec 2022: 3207)

▲ Indicates a statistically significant increase compared to Wave 8  
 ▼ Indicates a statistically significant decrease compared to Wave 8



# 4 Self-driving vehicles

## Summary

- In line with previous waves, awareness of self-driving vehicles (SDVs) was high but self-reported knowledge of them was low compared to other transport technologies (see **section 4.1** and **Overview**).
- People continued to select disadvantages of SDVs from a list more readily than they selected advantages from another list. Perceived disadvantages continued to relate to 'over-reliance in the technology', the 'technology being still unproven' and road and personal safety issues. There was an increase in the proportion selecting 'expensive to buy and maintain' as a disadvantage (see **section 4.3**).
- Knowledge of what behaviours are possible in a SDV when it is in self-driving mode continued to vary. For example, a majority of people were incorrect about who is responsible for how the vehicle drives and the use of the built-in screens. (see **section 4.5**).

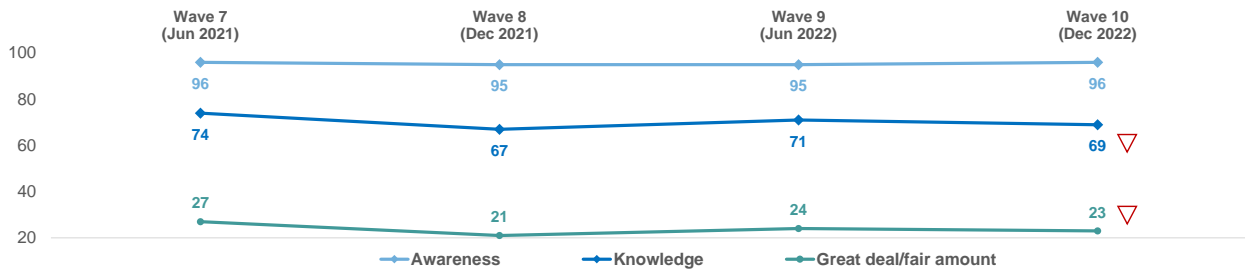
## 4.1 Awareness and knowledge

In December 2022 (Wave 10), almost everyone, 96%, claimed that they had at least heard of self-driving vehicles (SDVs). Levels of awareness were in line with those of June 2022 (Wave 9) and June 2021 (Wave 7), as shown in **Figure 4.1**.

Although a consistent downward trend in relation to levels of self-reported knowledge of SDVs has not emerged, this did decrease by five percentage points between June 2021 (Wave 7) and December 2022 (Wave 10), from 74% to 69%. Similarly, the proportion who said they know a great deal or fair amount about SDVs decreased by four points over the same period, from 27% to 23%.

- Three-quarters, of those in the highest household income bracket earning more than £100,000 per year, 77%, and those earning £52,000-£99,999, 74%, said they know a great deal, a fair amount or just a little about SDVs. This compared to 62% of those in the lowest annual household income bracket with earnings of less than £25,999 annually.

**Figure 4.1 – Awareness and knowledge of self-driving vehicles**



\*Self-reported knowledge answer codes: A great deal, A fair amount, Just a little  
 \*\*Awareness answer codes: A great deal, A fair amount, Just a little, Heard of, know nothing about them/it  
 Q117. Before today, how much, if anything, would you say you knew about self-driving cars or vans?  
 Base: All 16+ in England (Jun 2021: 3392; Dec 2021: 3219; Jun 2022: 3162; Dec 2022: 3207).

▲ Indicates a statistically significant increase compared to Wave 9  
 ▼ Indicates a statistically significant decrease compared to Wave 9  
 ▲ Indicates a statistically significant increase compared to Wave 7  
 ▼ Indicates a statistically significant decrease compared to Wave 7

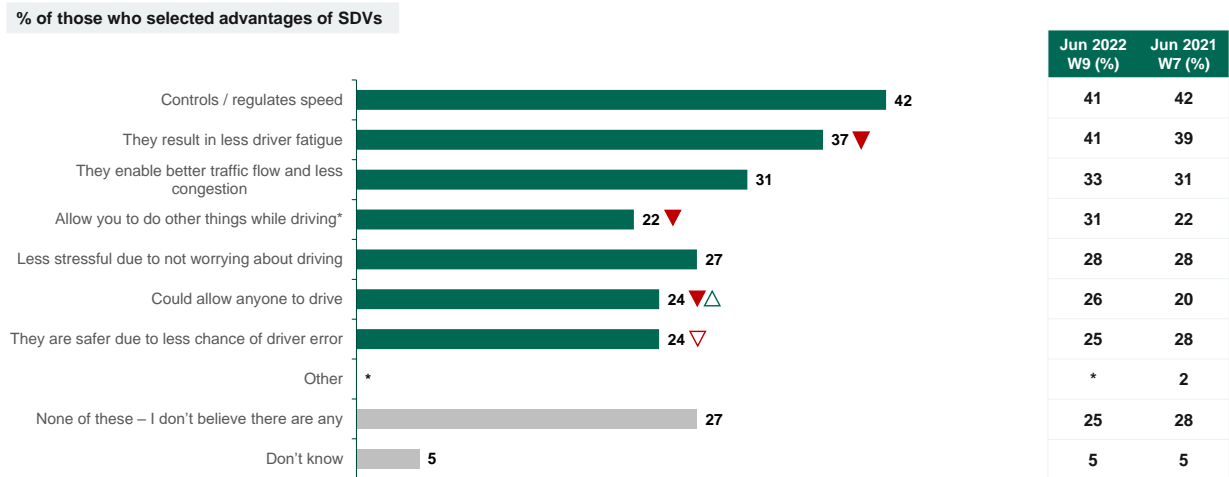
## 4.2 Advantages – prompted

In line with previous waves, when shown a list of potential advantages of SDVs, ‘controls/regulates speed’ (42%) and ‘they result in less driver fatigue’ (37%) were the advantages selected most frequently, as shown in **Figure 4.2**. ‘They enable better traffic flow and less congestion’ (31%) and ‘less stressful due to not worrying about driving’ (27%) were also frequently selected advantages.

There were decreases in the proportions selecting several advantages between June 2022 (Wave 9) and December 2022 (Wave 10). For example, selection of ‘they result in less driver fatigue’ as an advantage decreased four percentage points from 41% to 37%, and ‘could allow anyone to drive’ fell two points from 26% to 24%. A smaller proportion selected ‘they are safer due to less chance of driver error’ as an advantage than in June 2021 (Wave 7), 28% compared to 24%.

- The proportion who believed there were no advantages of self-driving vehicles increased with age. For example, just 9% of those aged 16-24 years old took this view, compared to 43% of 65-74-year-olds and half of those aged over 75 (49%).
- Younger generations were more likely than all other age groups to say that SDVs ‘allow you to do other things while driving’, selected by 39% of 16-24s compared to 26% of 25-44s and 7% of those aged 75 or over.
- A third (33%) of those in non-car owning households said they could ‘allow anyone to drive’ was an advantage, compared to 20% of car-owning households.

**Figure 4.2 – Advantages of self-driving vehicles**



Q119. Which of the following, if any, do you think are advantages of self-driving vehicles?  
 Base: All 16+ in England (Jun 2021: 3392; Jun 2022: 3162; Dec 2022: 3207).  
 \*A 9pp increase, then decrease in 'allowing you to do other things' potentially influenced by questionnaire update. A new question was added in Wave 9 (June 2022) before this question asking what people would expect to do whilst driving which could have primed people more so than on previous waves. This question was then removed for Wave 10 (Dec 2022)

▲ Indicates a statistically significant increase compared to Wave 9  
 ▼ Indicates a statistically significant decrease compared to Wave 9  
 ▲ Indicates a statistically significant increase compared to Wave 7  
 ▼ Indicates a statistically significant decrease compared to Wave 7

**4.3 Disadvantages – prompted**

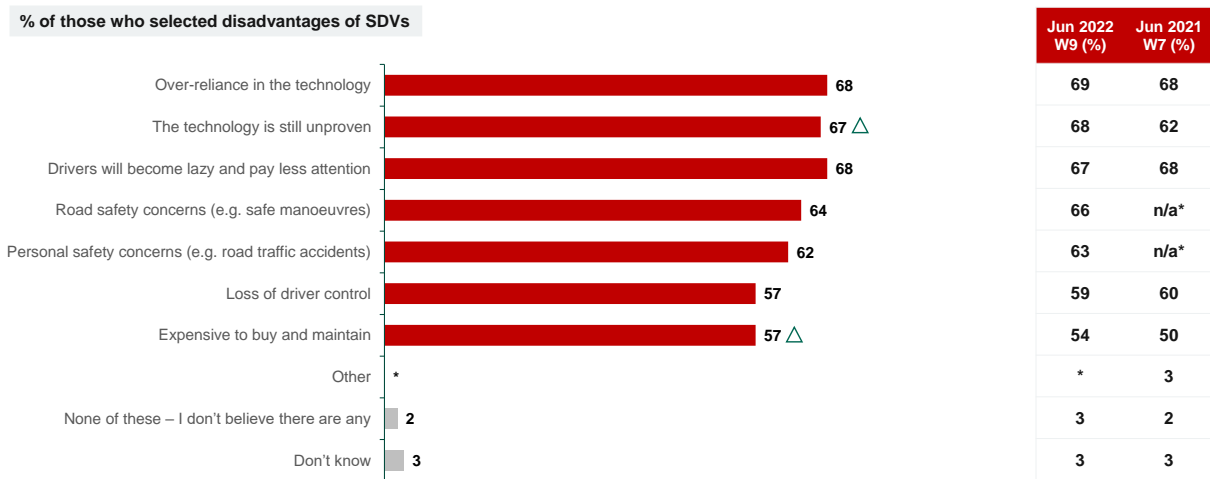
As in previous waves, the main perceived disadvantages continued to be an ‘over-reliance in the technology’ (68%) and ‘drivers will become lazy and pay less attention’ (68%), shown in **Figure 4.3**. ‘The technology is unproven’ was selected as a disadvantage by 67%, an increase of five percentage points on the 62% in June 2021 (Wave 7).

Six in ten (64%) selected ‘road safety concerns (e.g. safe manoeuvres)’ as a disadvantage and ‘personal safety concerns (e.g. road traffic accidents)’ (62%), in line with the previous wave June 2022 (Wave 9).

Between June 2021 (Wave 7) and December 2022 (Wave 10), there was an increase in the proportion who chose ‘expensive to buy and maintain’. This increased seven percentage points from 50% to 57%.

- The ‘cost to buy and maintain’ SDVs was selected as a disadvantage more frequently by those in households with lower annual income. For example, this was selected by 60% of those in households with an annual income of £26,000-£51,999 compared to 49% of those with an income of £100,000 and above.

**Figure 4.3 – Disadvantages of self-driving vehicles**



Q121. Here are some disadvantages other people have specified of self-driving vehicles. Which of the following, if any, do you think are disadvantages?  
 Base: All 16+ in England (Jun 2021: 3392; Jun 2022: 3162; Dec 2022: 3207).

\*Safety concerns were split out in Wave 9 into road safety and personal safety. In the previous wave (Wave 8) safety concerns in general were selected as a disadvantage by 70% of people.

$\Delta$  Indicates a statistically significant increase compared to Wave 9  
 $\nabla$  Indicates a statistically significant decrease compared to Wave 9  
 $\Delta$  Indicates a statistically significant increase compared to Wave 7  
 $\nabla$  Indicates a statistically significant decrease compared to Wave 7

**4.4 Knowledge of rules and regulations**

In December 2022 (Wave 10), people were shown a set of four statements, as shown in **Table 4.1**, and were asked if they believed them to be true or false. They were asked about a scenario ‘when using a self-driving vehicle as a driver and the self-driving mode is ‘on’.

**Table 4.1 – Statements relating to self-driving vehicles**

When using a self-driving vehicle as a driver and the self-driving mode is ‘on’:

Correct answer

I am **not** responsible for how the vehicle drives

TRUE

I am **allowed** to use built-in screens to watch TV (i.e., the infotainment system)

TRUE

I do **not** have to be fit to drive (e.g., I can sleep and drink alcohol)

FALSE

I am **allowed** to use a mobile phone (hand-held)\*

FALSE

As seen in **Figure 4.4**, people were most likely to correctly identify that ‘I do not have to be fit to drive’ was a false statement. Just under nine in ten (88%) got this right, an increase from the 85% in June 2022 (Wave 9).

Two-thirds (66%) correctly identified ‘I am allowed to use a mobile a mobile phone (hand-held)’ as false, (an increase of 15 percentage points since June 2022 (Wave 9)) but the question changed in December 2022 (Wave 10) specifying that the phone had to be hand-held, so the two data points are not directly comparable\*.

Two in ten (18%) correctly thought ‘I am allowed to use built-in screens to watch TV’, a drop from 30% in June 2022 (Wave 9). Two-thirds (65%), incorrectly answered that this was false.

- Three in ten (31%) 16-24-year-olds were much more likely than average (18%) to be correct that ‘I am allowed to use the infotainment system’.

Three-quarters (75%) incorrectly answered ‘false’ to the statement ‘I am not responsible for how the vehicle drives’, an increase of four percentage points on the 71% in June 2022 (Wave 9). One in ten (10%) said they did not know.

- Those aged 65-74 were least likely to answer this question correctly (9%), but were also most likely to say they didn’t know (15%).

**Figure 4.4 – Statements relating to self-driving vehicles**



Rule	True %	False %	DK %
<b>I am not responsible for how vehicle drives (TRUE)</b>	15	75	10
<b>I am allowed to use infotainment system (TRUE)</b>	18	65	17

Rule	True %	False %	DK %
<b>I do not have to be fit to drive (FALSE)</b>	5	88	7
<b>I am allowed to use a mobile phone (hand-held)* (FALSE)</b>	17	66	17

Q302. Here are some statements about self-driving vehicles. For each one, please select whether you think it is true or false or whether you don't know. When using a self-driving vehicle as a driver and the self-driving mode is 'on'... (A) I am not responsible for how the vehicle drives. (B) I am allowed to use built-in screens to watch TV (i.e. the infotainment system). Base: All 16+ in England: (Jun 2022: 3162; Dec 2022: 3207).

\*The addition of the clarification 'hand-held' in statement D in Wave 10 (Dec 2022) should be considered when interpreting the change since Wave 9 (Jun 2022).

Q302. Here are some statements about self-driving vehicles. For each one, please select whether you think it is true or false, or whether you don't know. (C) I do not have to be fit to drive (e.g. I can sleep and drink alcohol). (D) I am allowed to use a mobile phone. Base: All 16+ in England: (Jun 2022: 3162; Dec 2022: 3027).

- ▲ Indicates a statistically significant increase compared to Wave 9
- ▼ Indicates a statistically significant decrease compared to Wave 9

# 5 E-scooters

## Summary

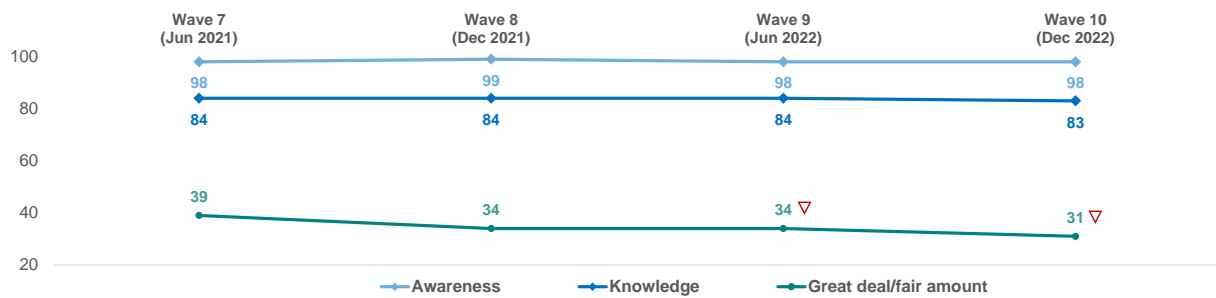
- Levels of awareness and self-reported knowledge of e-scooters were high and in line with previous waves (see section 5.1).
- Reported ownership of e-scooters remained low and there has been no increase in the use of rental e-scooters (see section 5.2).
- Purchase intention was also low although there has been an increase in the small proportion of people saying they were very likely to purchase one (see section 5.3).
- The advantages and disadvantages of e-scooters selected most frequently by respondents have remained the same over time. The advantage 'quicker to get around than walking' and the disadvantage 'pose a safety risk to pedestrians (e.g. on the road, pavements)' continued to be the most frequently selected (see sections 5.5 and 5.6).
- There was low knowledge of the four rules about e-scooter use covered by the tracker but, as in December 2021 (Wave 8), the majority of people were able to correctly identify that riding a rental scooter on a pavement or footpath is illegal (see section 5.7).

## 5.1 Awareness and knowledge

In December 2022 (Wave 10), levels of awareness and self-reported knowledge of e-scooters were in line with previous waves as almost everyone, 98%, claimed that they had at least heard of e-scooters, as shown in Figure 5.1.

Self-reported knowledge - people knowing a great deal, fair amount or just a little - remained unchanged since previous waves (83%). Three in ten said they knew a great deal or fair amount (31%), similar to June 2022 (Wave 9) (34%) and December 2021 (Wave 8) (34%) but this was eight percentage points lower than it had been in June 2021 (Wave 7) (39%). In line with previous waves:

- The proportion that reported to know a great deal or fair amount decreased with age. For example, 49% of 16-24-year-olds and 37% of 25-34 year olds said this compared to 21% of those aged 75 or over.
- Those living in urban areas were more likely to know a great deal or fair amount about e-scooters (32%) than those living in rural settings (25%); and
- A higher proportion of people who don't own a car said they knew a great deal/fair amount (37%) than those who own a car (29%).

**Figure 5.1 – Awareness and knowledge of e-scooters**

\*Self-reported **knowledge** answer codes: A great deal, A fair amount, Just a little

\*\***Awareness** answer codes: A great deal, A fair amount, Just a little, Heard of, know nothing about them/it

Q122. Before today, how much, if anything, would you say you knew about electric scooters

Base: All 16+ in England (Jun 2021: 3392; Dec 2021: 3219; Jun 2022: 3162; Dec 2022: 3207)

▲ Indicates a statistically significant increase compared to Wave 9

▼ Indicates a statistically significant decrease compared to Wave 9

△ Indicates a statistically significant increase compared to Wave 7

▽ Indicates a statistically significant decrease compared to Wave 7

## 5.2 Ownership and usage

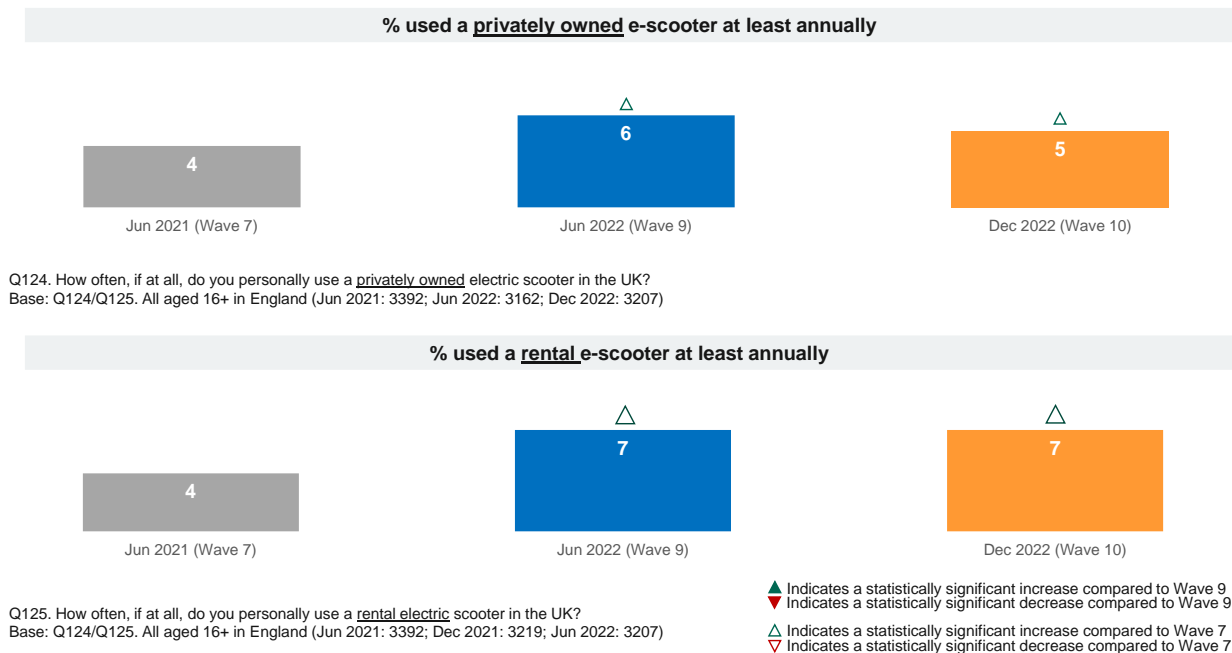
In line with previous waves, reported ownership of e-scooters was low. In December 2022, only one in fifty people, 2%, said they owned an e-scooter. In line with most previous years, the proportion of people using a privately owned e-scooter at least once a year remained low at 5%, as shown in **Figure 5.2**.

There was no increase in the use of rental e-scooters at least once a year between June 2022 (Wave 9) and December 2022 (Wave 10). This remained at 7%, three percentage points higher than the 4% in June 2021 (Wave 7).

- Men used rental e-scooters more often than women; 10% of men used one at least once a year compared to 4% of women.
- Young people aged 16-24 and 25-34 used rental e-scooters more often than other age groups - for example, 20% of those aged 16-24 and 14% of those aged 25-34 reported using them at least once a year compared to 1% of those aged 65-74.
- Those living in urban areas were more likely to have used rental e-scooters at least once a year (8%) than those in rural areas (3%).
- Ethnic minority groups were more likely to use rental e-scooters at least once a year (13%) compared to white respondents (6%).
- Full-time students were the most likely socio-economic group to have used rental e-scooters at least once a year (15%). Small employers and own account workers and respondents with semi-routine and routine occupations were the least likely socio-economic groups to use rental e-scooters at least once a year (both 2%).

The proportion of people who reported using rental e-scooters at least monthly was 3% in December 2022 (Wave 10), similar to the 4% in June 2022 (Wave 9), having increased from 2% June 2021 (Wave 7).

**Figure 5.2 – Frequency of use of privately-owned and rental e-scooters**

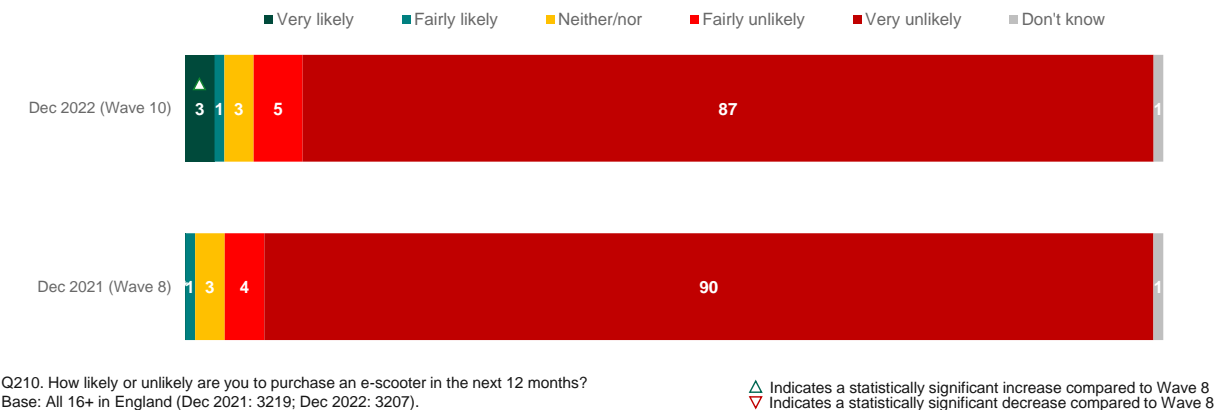


**5.3 Purchase intention**

The proportion of people who said they were very likely to purchase an e-scooter increased from 0% to 3% between December 2021 (Wave 8) and December 2022 (Wave 10), as shown in **Figure 5.3**. One in 25 respondents (4%) reported being very likely to purchase an e-scooter compared to 92% who said they were very or fairly unlikely.

- Almost all aged 75 or over (98%) were very or fairly unlikely to purchase an e-scooter compared to 85% of 16-24-year-olds and 90% of those aged 25-34.
- One in fourteen (7%) ethnic minority respondents were very or fairly *likely* to purchase an e-scooter, double the proportion of white respondents (3%).

**Figure 5.3 – Purchase intention of e-scooters**



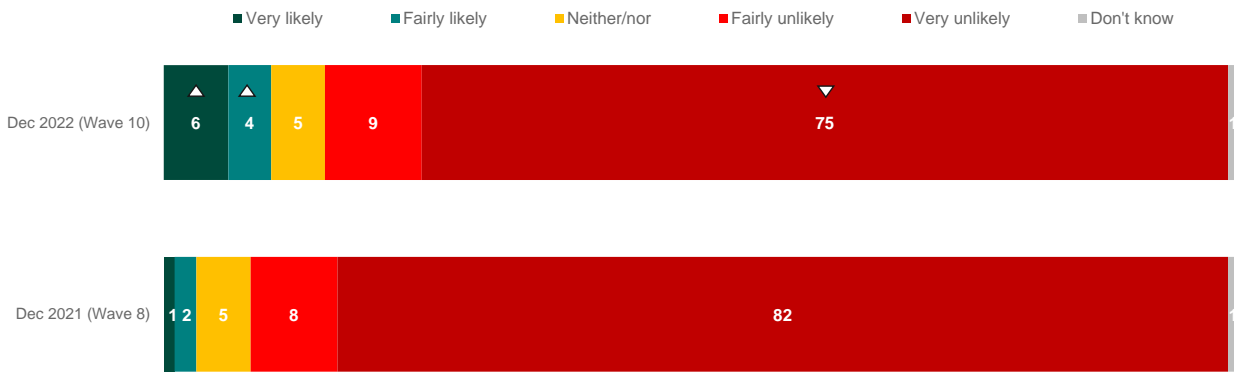


### 5.4 Renting intention

The proportion of respondents who reported being very likely to rent an e-scooter in the next year increased from 1% in December 2021 (Wave 8) to 6% in December 2022 (Wave 10). The proportion of those who reported to be fairly likely to rent an e-scooter in the next 12 months increased as well, from 2% in December 2021 (Wave 8) to 4% in December 2022 (Wave 10), as shown in **Figure 5.4**.

- Respondents aged 16-24 (17%) reported most often that they were very or fairly likely to rent an e-scooter in the next year, compared to 6% of the 65-74-year-olds.
- Those working full-time and those in education were the groups with the highest proportion of respondents being very or fairly likely to rent an e-scooter in the next 12 months, compared to only 6% of those retired.

**Figure 5.4 –Renting intention of e-scooters**

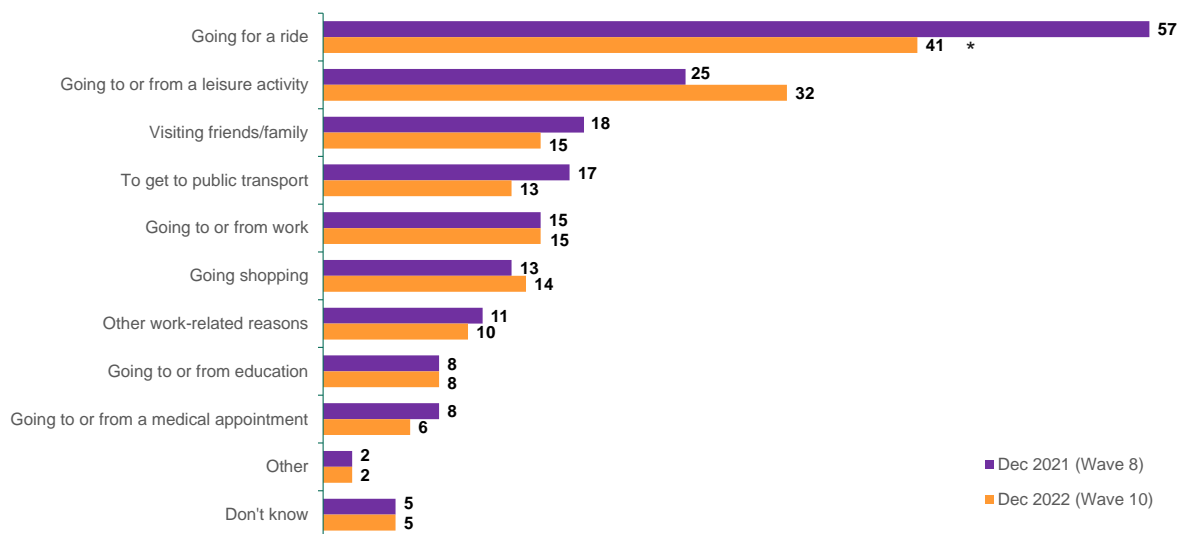


Q211. How likely or unlikely are you to hire an e-scooter in the next 12 months in the UK?  
 Base: All 16+ in England (Dec 2021: 3219; Dec 2022: 3207).

▲ Indicates a statistically significant increase compared to Wave 8  
 ▼ Indicates a statistically significant decrease compared to Wave 8

### 5.5 Reasons for use

People who said they have used a privately-owned or rental e-scooter were asked about the reasons for use. As shown in **Figure 5.4**, the main reason, selected by 41%, was ‘going for a ride’ (this option replaced ‘just for fun’ used in December 2021, so the two data points are not directly comparable). In line with December 2021 (Wave 8), the other key reasons to use an e-scooter were were ‘going to or from a leisure activity’ (32%), ‘visiting friends or family’ (15%), ‘going to or from work’ (15%), ‘going shopping’ (14%) and ‘to get to public transport’ (13%).

**Figure 5.4 – Reasons for using e-scooters**

Q209. What are your reasons for using an e-scooter?  
 Base: All 16+ in England who have used a privately owned or rental e-scooter  
 (Dec 2021: 172; Dec 2022: 292)

\*The answer code changed from 'Just for fun' in wave 8 to 'Going for a ride' in w10, so significant increase has been omitted

▲ Indicates a statistically significant increase compared to Wave 8  
 ▼ Indicates a statistically significant decrease compared to Wave 8

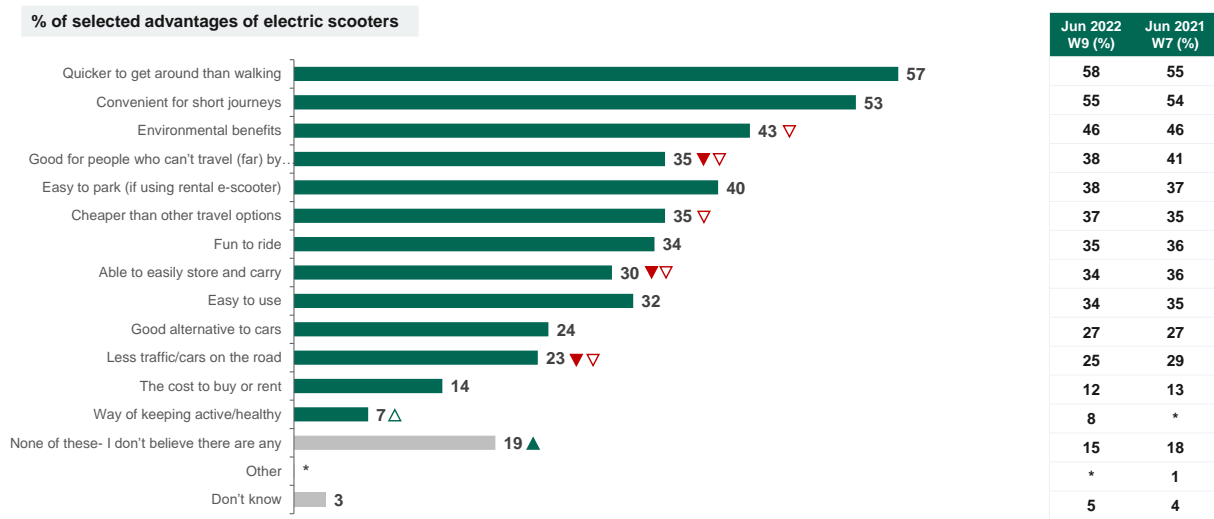
## 5.6 Advantages – prompted

The advantages selected most frequently have remained consistent across waves. E-scooters being 'quicker to get around than walking' was the advantage selected most frequently from a list. This was chosen by 57% in December 2022 (Wave 10), as shown in **Figure 5.5**.

'Convenient for short journeys' (53%) and 'environmental benefits' (43%) were the next most selected advantages, although the latter decreased by three percentage points since June 2021 (Wave 7). There was also a three percentage point decrease in selection of being 'good for people who can't travel (far) by foot/bike' as an advantage – from 38% in June 2022 (Wave 9) to 35% in December 2022 (Wave 10). A similar proportion (40%) selected 'easy to park (if using a rental e-scooter)' in December 2022 (Wave 10).

- Two in ten (18%) ethnic minorities selected 'the cost to buy or rent' e-scooters as an advantage compared to 13% of white respondents.
- More than half of those in education selected 'easy to use' as an advantage (52%), a much higher proportion than the 22% of those who were retired.

**Figure 5.5 – Advantages of e-scooters**



Q127. Which of the following, if any, do you think are advantages of electric scooters?  
 Base: All 16+ in England (Jun 2021: 3392; Jun 2022: 3162; Dec 2022: 3207)

▲ Indicates a statistically significant increase compared to Wave 9  
 ▼ Indicates a statistically significant decrease compared to Wave 9  
 ▲ Indicates a statistically significant increase compared to Wave 7  
 ▼ Indicates a statistically significant decrease compared to Wave 7

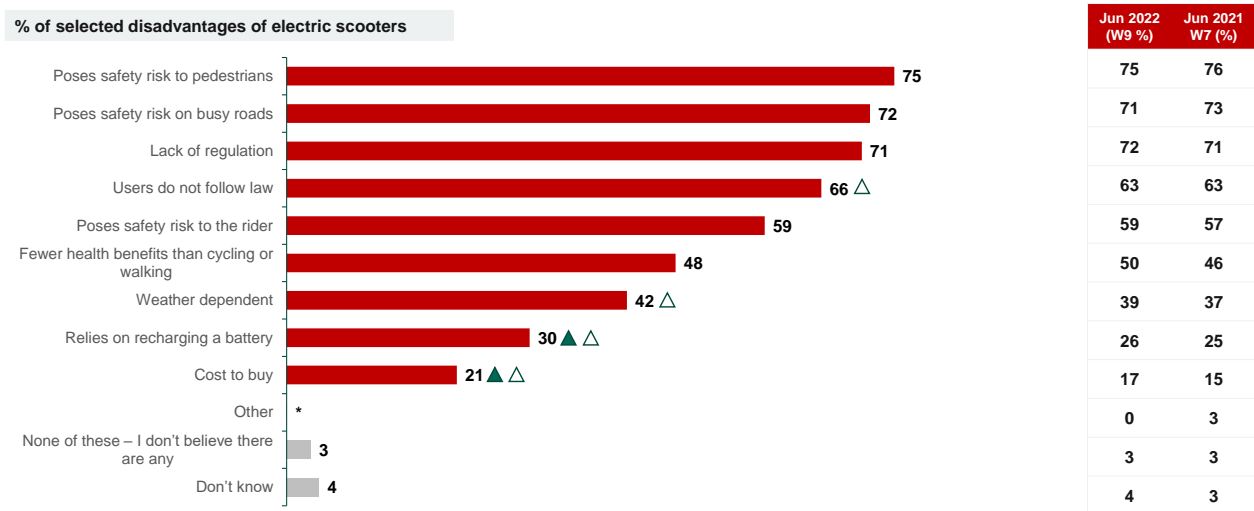
**5.7 Disadvantages – prompted**

The disadvantages selected most frequently by people have also remained consistent across waves. As seen in **Figure 5.6**, ‘pose a safety risk to pedestrians (e.g. on the road, pavements)’ was the most frequently selected disadvantage, selected by 75% in December 2022 (Wave 10) in line with June 2022 (Wave 9).

Seven in ten selected ‘poses safety risk on busy roads’ (72%) and ‘lack of regulation (71%) as disadvantages. There was an increase of three percentage points in the proportion who chose ‘users don’t follow the law’ from 63% in June 2021 (Wave 7) to 66% in December 2022 (Wave 10). In line with previous waves, around six in ten (59%) selected ‘poses safety risk to the rider’. A higher proportion of people selected ‘weather dependent’, ‘relies on recharging a battery’ and ‘cost to buy’ as disadvantages than in previous waves.

- In line with previous waves, 55-64-year-olds, 65-74-year-olds, and those aged 75 or over were more likely to select safety-related disadvantages. For example, 85% of those aged 65-74 and 75 or over selected ‘poses safety risk to pedestrians’ as a disadvantage compared to 59% of 16-24-year-olds.
- On the other hand, 'cost to buy' was selected as a disadvantage most often by 16-24-years old (41%) as well as 25-34-year olds (26%) as compared to respondents aged 65-74 (13%) and those aged 75 or older (13%). This was in line with previous waves.

**Figure 5.6 - Disadvantages of e-scooters**



Q129. Which of the following, if any, do you think are disadvantages of electric scooters?  
 Base: All 16+ in England (Jun 2021: 3392; Jun 2022: 3162; Dec 2022: 3207)

$\blacktriangle$  Indicates a statistically significant increase compared to Wave 9  
 $\blacktriangledown$  Indicates a statistically significant decrease compared to Wave 9  
 $\triangle$  Indicates a statistically significant increase compared to Wave 7  
 $\triangledown$  Indicates a statistically significant decrease compared to Wave 7

**5.8 Understanding of rules about e-scooter use**

People were shown a set of four statements relating to rules about e-scooters in the UK and asked if they believed each of them to be true or false. The statements, and whether they are true or false, are listed in **Table 5.7**.

**Table 5.7 – Statements relating to rules about e-scooters in the UK**

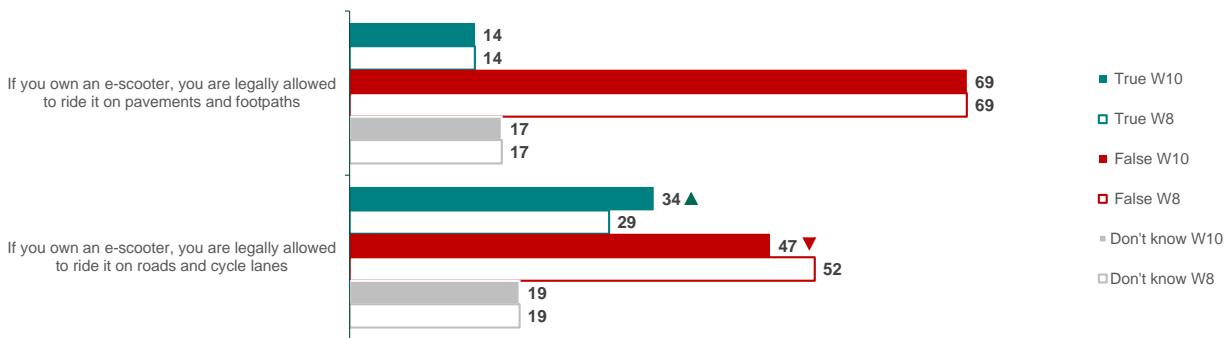
	Correct answer
If you <b>own</b> an e-scooter, you are legally allowed to ride it on pavements and footpaths	FALSE
If you <b>own</b> an e-scooter, you are legally allowed to ride it on roads and cycle lanes	FALSE
If you <b>hire</b> an e-scooter, you are legally allowed to ride it on pavements and footpaths	FALSE
If you <b>hire</b> an e-scooter, you are legally allowed to ride it on roads and cycle lanes	TRUE

The proportion of people who knew all the rules around e-scooter usage was low, with 14% not knowing any of the four rules. However, as in December 2021 (Wave 8), the majority of people (56%) were able to correctly identify that riding a rental scooter on a pavement or footpath is illegal, one quarter of people (24%) thought it was legal, and one fifth (20%) answered don't know.

- There was greater uncertainty about the legality of use of rental e-scooters on a pavement or footpath among older age groups. A quarter, 26%, of 65-74-year-olds and 29% of those aged 75 or over answered ‘don’t know’ compared to 11% of those aged 35-44.
- One in three (33%) of those aged 16-24 incorrectly thought it was legal to ride on pavements and footpaths, compared to 19% those aged 65-74.

In December 2022 (Wave 10), 47% were correct in stating that riding a privately owned e-scooter on roads and cycle lanes is illegal, a smaller proportion than the 52% in December 2021 (Wave 8), shown in **Figure 5.7**. In line with December 2021 (Wave 8), a majority (54%) were correct about the legality of riding a rental e-scooter on roads and cycle lanes. The percentage of people who mistakenly believed that riding a rental e-scooter on roads and cycle lanes was illegal decreased from 29% in December 2021 (Wave 8) to 26% in December 2022 (Wave 10).

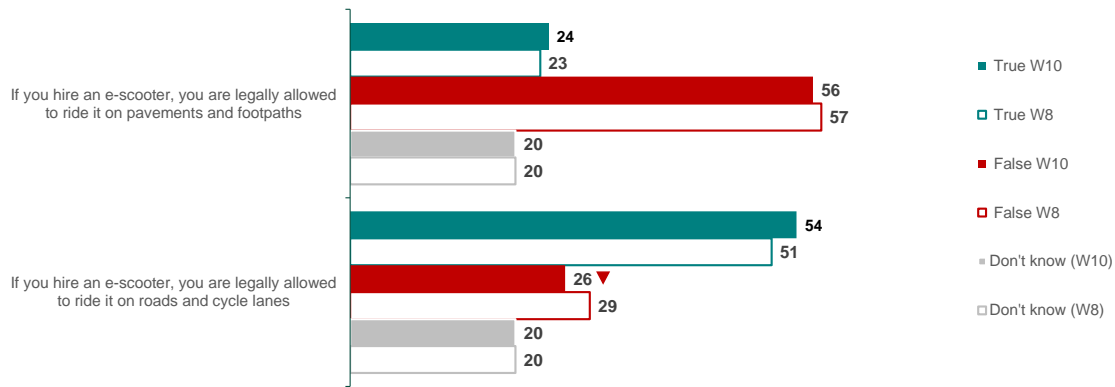
**Figure 5.7 – Statements relating to rules about use of e-scooters**



Rule	True %	False %	DK %
If you own an e-scooter, you are legally allowed to ride it on pavements and footpaths (FALSE)	14	69	17
If you own an e-scooter, you are legally allowed to ride it on roads and cycle lanes (FALSE)	34	47	19

Q212. Here are some statements about rules about e-scooters in the UK. For each one I would like you to tell me whether you think it is true or false or whether you don't know. (A) If you own an e-scooter you are legally allowed to ride on pavements and footpaths. (B) If you own an e-scooter, you are legally allowed to ride it on roads and cycle lanes.  
 Base: All 16+ in England: (Dec 2021: 3219; Dec 2022: 3207).

▲ Indicates a statistically significant increase compared to Wave 8  
 ▼ Indicates a statistically significant decrease compared to Wave 8



Rule	True %	False %	DK %
<b>If you hire an e-scooter, you are legally allowed to ride it on pavements and footpaths (FALSE)</b>	24	56	20
<b>If you hire an e-scooter, you are legally allowed to ride it on roads and cycle lanes (TRUE)</b>	54	26	20

Q212. Here are some statements about rules about e-scooters in the UK. For each one I would like you to tell me whether you think it is true or false or whether you don't know. (C) If you hire an e-scooter you are legally allowed to ride on pavements and footpaths. (D) If you hire an e-scooter, you are legally allowed to ride it on roads and cycle lanes.

Base: All 16+ in England: (Dec 2021: 3219; Dec 2022: 3207).

▲ Indicates a statistically significant increase compared to Wave 8  
 ▼ Indicates a statistically significant decrease compared to Wave 8

## 6 E-cycles

### Summary

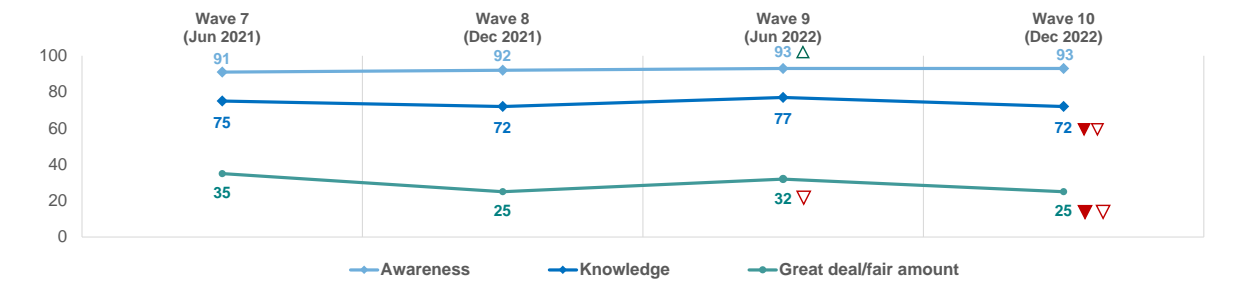
- Awareness of e-cycles remained in line with June 2022 (Wave 8) at 93% in December 2022 (Wave 9), but self-reported knowledge decreased from 77% in June 2022 (Wave 9) to 72% in December 2022 (Wave 10) (see **section 6.1**).
- Consistent with previous waves, ownership and use of e-cycles remained low at 4% and 8% respectively in December 2022 (Wave 10). Ownership and usage were higher for standard cycles at 44% and 41% respectively, which remained unchanged across waves as well.
- The intention to purchase an e-cycle remained lower than the intention to use an e-cycle scheme. 12% of people said they were likely to use an e-cycle scheme (see **section 6.5**) compared to 3% who said they were likely to purchase an e-cycle.
- As was the case in previous waves, the advantage of e-cycles mentioned by most people was 'less effort required than a normal bike'. 'Expensive to buy' was the most common disadvantage. Some advantages have seen a reduction in the proportions of people selecting them since Wave 7, including 'environmental benefits' and 'a way of keeping active', while some disadvantages, including the expense of purchase and concerns around theft, have been selected by greater proportions of people over the same period (see **sections 6.6 and 6.7**).

### 6.1 Awareness and knowledge

In December 2022 (Wave 10), awareness of e-cycles was in line with previous waves (93%), as shown in **Figure 6.1**. However, self-reported knowledge decreased to 72% from 77% in June 2022 (Wave 9) and was also lower than the 75% in June 2021 (Wave 7).

- Awareness of e-cycles was higher among older age groups. For example, more than three in four (77%) of those aged 65-74 had at least some knowledge of e-cycles compared to 67% of those aged 25-34.
- White respondents were more likely to be aware of e-cycles (95%) than respondents from ethnic minorities (82%).
- Awareness of e-cycles was higher for people living comfortably and those coping, both at 95%, compared to respondents who reported finding it difficult to live on their present income (91%) or very difficult (87%).
- Awareness was also higher among those living in car-owning households (95%) than those without a car (89%).

A quarter of people (25%) said they know a great deal/fair amount about e-cycles in December 2022 (Wave 10), a decrease of seven percentage points from 32% in June 2022 (Wave 9). This was also lower than it had been (35%) in June 2021 (Wave 7).

**Figure 6.1 – Awareness and knowledge of e-cycles**

\*Self-reported **knowledge** answer codes: A great deal, A fair amount, Just a little

\*\***Awareness** answer codes: A great deal, A fair amount, Just a little, Heard of, know nothing about them/it

Q137. Before today, how much, if anything, would you say you knew about e-cycles?

Base: All 16+ in England (Jun 2021: 3392; Dec 2021: 3219; Jun 2022: 3162; Dec 2022 (3207)

▲ Indicates a statistically significant increase compared to Wave 9  
▼ Indicates a statistically significant decrease compared to Wave 9

△ Indicates a statistically significant increase compared to Wave 7  
▽ Indicates a statistically significant decrease compared to Wave 7

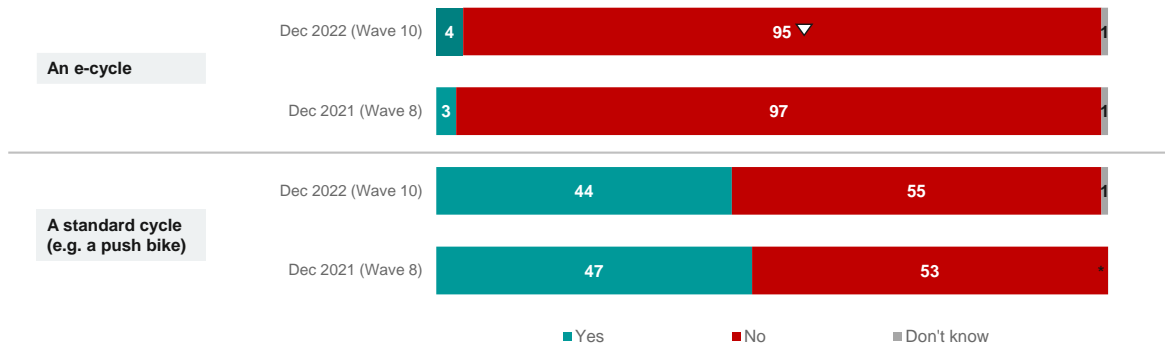
## 6.2 Ownership

In line with previous waves, reported ownership of e-cycles was low. Only 4% said they owned one, as shown in **Figure 6.2**. Ownership of standard bicycles also remained at similar levels in December 2022 (Wave 10), 44%, as in December 2021 (Wave 8) 47%.

- Older age groups were more likely than other age groups to own an e-cycle - 9% of those aged 65-74 said they own an e-cycle compared to 2% of those aged 16-24.
- Those aged 45-54-year-olds were the age group most likely to own a standard cycle (57%) compared to 44% on average across all age groups.
- People in car-owning households were more likely to own an e-cycle (4%) than those in non-car owning households (3%). This was also the case for standard cycles - 46% versus 35%.
- People in rural areas (7%) were more likely to own an e-cycle than those in urban areas (3%). This applies as well for standard cycles with 53% compared to 42%.



**Figure 6.2 – Ownership of e-cycles and standard cycles**



Q213. Do you personally own...?  
 Base: All 16+ in England (Dec 2021: 3219; Dec 2022: 3207)

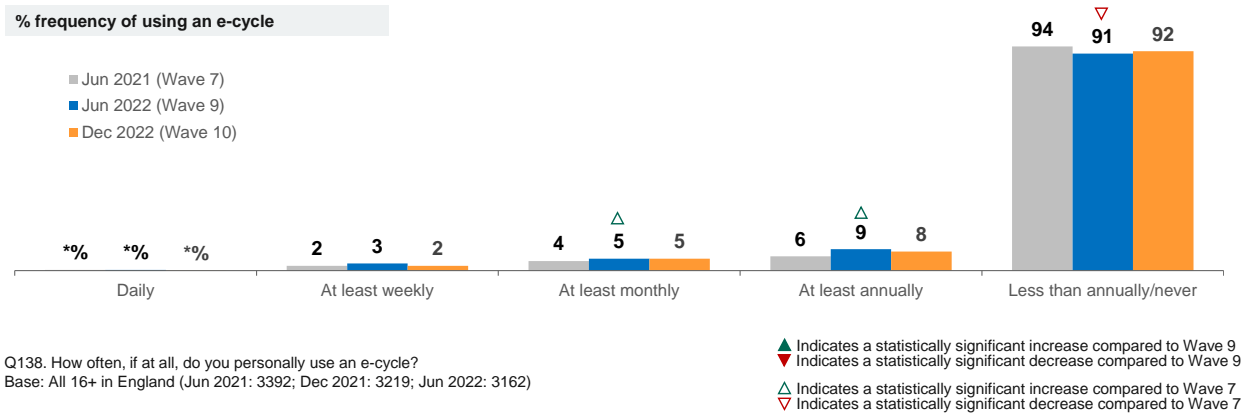
△ Indicates a statistically significant increase compared to Wave 8  
 ▽ Indicates a statistically significant decrease compared to Wave 8

### 6.3 Usage

Use of e-cycles remained low in December 2022 (Wave 10), as shown in **Figure 6.3**. In line with previous waves, nine in ten (92%) said they never used an e-cycle or did so less frequently than once a year; 8% used one at least once a year.

- The proportion who used an e-cycle at least once a year was higher among 16-24-year-olds (11%) and 25-34-year-olds (9%) than those aged 75 or over (4%).
- Those in households with an annual income of £100,000 or more were more likely than other income groups to have used e-cycles once a year or more often (14%).

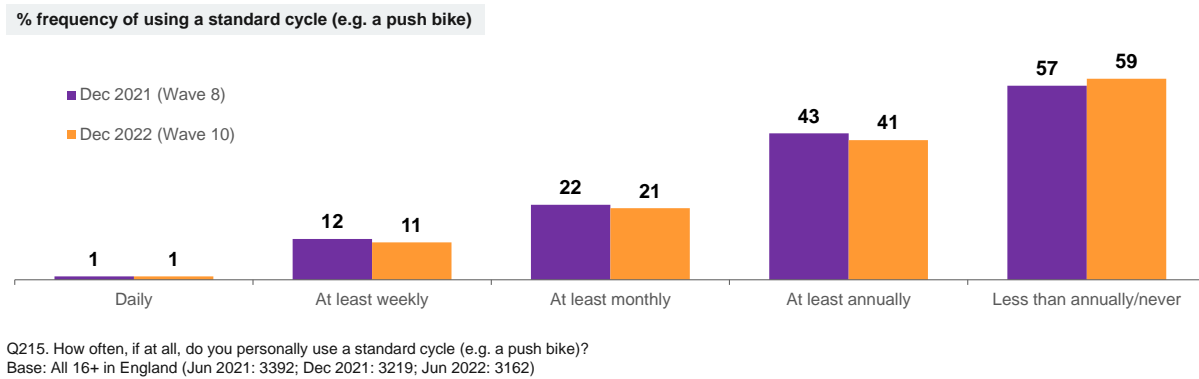
**Figure 6.3 – Usage of e-cycles**



The proportion who used a standard cycle at least once a year remained in line with previous years at 41% in December 2022 (Wave 10). As shown in **Figure 6.4**, this was also the case for those who used a standard cycle at least monthly, 21%, and those who used it at least weekly, 11% .

- The proportion who used a standard cycle at least once a year was higher among 35-44-year-olds (51%) and 45-54-years olds (50%) than those aged 55 or over (42% among 55-64 , 28% among 65-74 and 16% among 75+).
- White respondents were more likely to use a standard cycle at least annually (43%) than ethnic minorities (32%).

**Figure 6.4 – Usage of standard cycles**

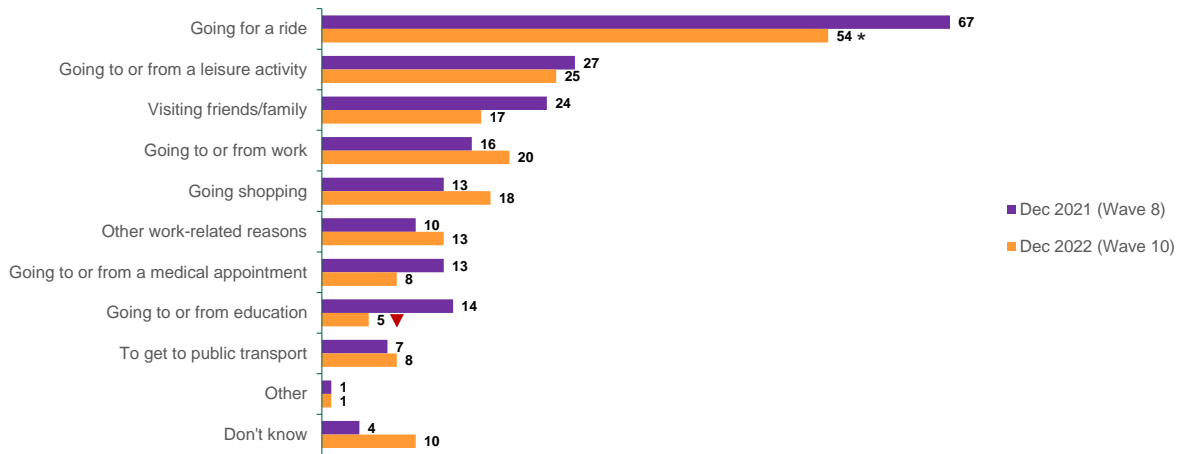


**6.4 Reasons for using e-cycles**

Among those who had ever used an e-cycle, the most common reason for doing so was 'going for a ride'. This was chosen as a reason by 54% in December 2022 (Wave 10) (this option replaced 'just for fun', used in December 2021), shown in **Figure 6.5**.

As in December 2021 (Wave 8), the other key reasons to use an e-cycle in December 2022 (Wave 10) were 'going to or from a leisure activity' (25%), 'going to or from work' (20%), and 'visiting friends or family' (17%),.

**Figure 6.5 – Reasons for using e-cycles**



Q216. What are your reasons for using an e-cycle?  
 Base: All 16+ in England who ever use an e-cycle (Dec 2021: 263; Dec 2022: 362)  
 \*The answer code changed from 'Just for fun' in wave 8 to 'Going for a ride' in w10, so significant difference has been omitted!

▲ Indicates a statistically significant increase compared to Wave 8  
 ▼ Indicates a statistically significant decrease compared to Wave 8

**6.5 Purchase intention and use of e-cycle share schemes**

As shown in **Figure 6.6**, there was no change in the very small proportion of people who said they were likely to purchase an e-cycle between December 2021 (Wave 8) and December 2022 (Wave 10). Just 3% said they very or fairly likely to purchase an e-cycle in December 2022 (Wave 10) compared to 4% twelve months earlier.

**Figure 6.6 – Purchase intention of e-cycles**



Q214. How likely or unlikely are you to purchase an e-cycle in the next 12 months?  
 Base: All 16+ in England who do not own an e-cycle (Dec 2021: 3100; Dec 2022: 3066).

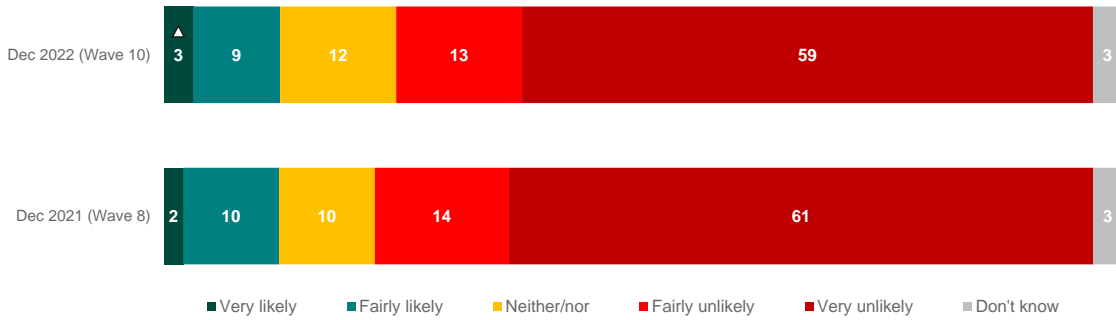
▲ Indicates a statistically significant increase compared to Wave 8  
 ▼ Indicates a statistically significant decrease compared to Wave 8

Respondents were provided with the following text about an e-cycle share scheme: "An e-cycle share scheme is a service that allows people to pay to hire an e-cycle by collecting it from a “docking” point such as a bike rack or a “dockless” location such as a pavement or where it has been left by previous users. This could involve share schemes that are available to anyone, or they could be targeted share schemes that are available to employees in a workplace, or community groups. "

Respondents were then asked about their likelihood of using such a scheme. As shown in **Figure 6.7**, people were relatively more likely to expect to use an e-cycle scheme than they were to buy one. In both December 2021 (Wave 8) and December 2022 (Wave 10), 12% of people said they were very or fairly likely to use one.

- Two in ten of those aged 16-24 and 25-34 (19% and 21% respectively) said they would be very or fairly likely to use a local e-cycle scheme compared to 4% of those aged 75 or over.
- While 15% of men said they were very or fairly likely to use a scheme, only 10% of women said this.

**Figure 6.7 – Likelihood of using e-cycle schemes**



Q216B. How likely or unlikely would you be to use an e-cycle scheme if it was available in your area?  
 Base: All 16+ in England (Dec 2021: 3219; Dec 2022: 3207).

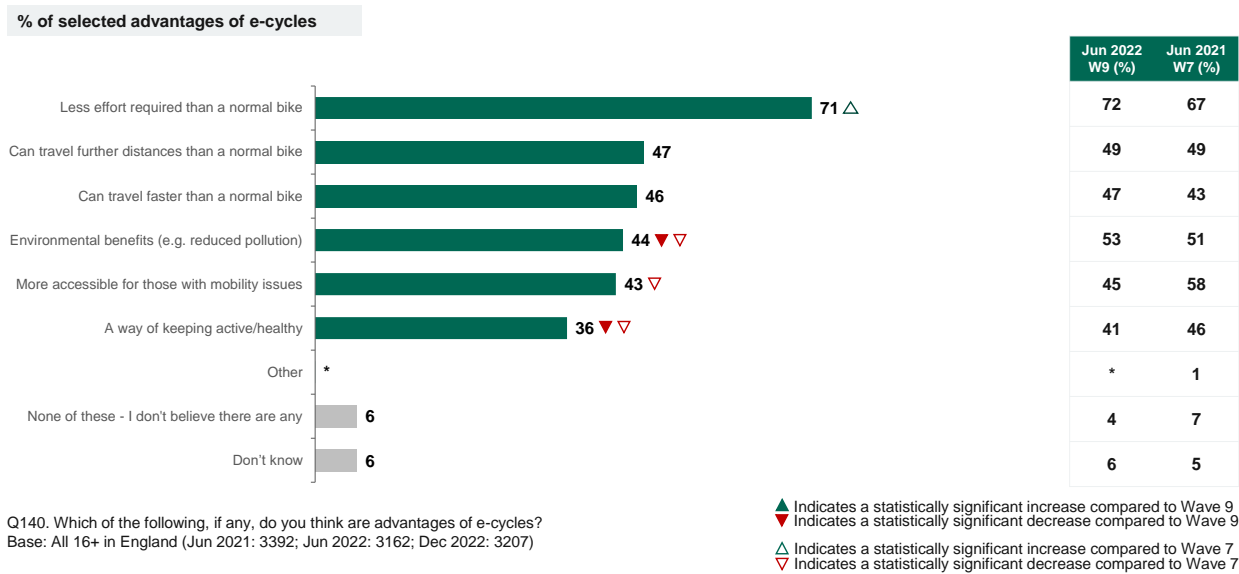
▲ Indicates a statistically significant increase compared to Wave 8  
 ▼ Indicates a statistically significant decrease compared to Wave 8

### 6.6 Advantages – prompted

As was the case in previous waves, the most frequently selected advantage of e-scooters was ‘less effort required than a normal bike’. Seven in ten (71%) selected this in December 2022 (Wave 10), similar to the 72% in June 2022 (Wave 9) but a higher proportion than the 67% in June 2021. As shown in **Figure 6.8**, the advantage ‘can travel further distances than a normal bike’ was selected by 47% and ‘can travel faster than a normal bike’ by 46%.

‘Environmental benefits (e.g. reduced pollution)’ was selected as an advantage by 44% in December 2022 (Wave 10), down nine percentage points on 53% in June 2022 (Wave 9) and 7 percentage points on 51% in June 2021 (Wave 7). Furthermore, fewer respondents selected e-cycles as having the advantage of being ‘more accessible for those with mobility issues’, with 43% in December 2022 (Wave 10), down 15% since June 2021 (Wave 7). Similarly, the proportion of respondents who selected ‘a way of keeping active and healthy’ as an advantage fell by five and ten percentage points respectively to 36% in December 2022 (Wave 10) from 41% in June 2022 (Wave 9) and 46% June 2021 (Wave 7).

**Figure 6.8 – Advantages of e-cycles**

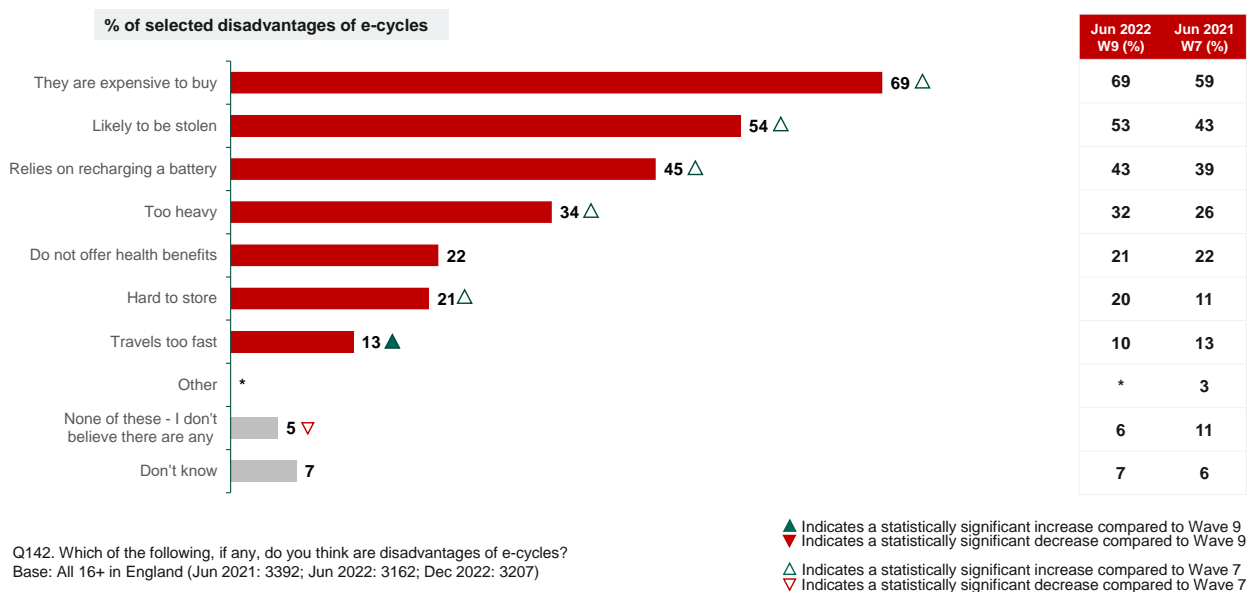


**6.7 Disadvantages – prompted**

As seen in **Figure 6.9**, ‘they are expensive to buy’ remained the disadvantage selected most frequently. As in June 2022 (Wave 9), this was chosen by 69%, up by ten percentage points since June 2021 (Wave 7) (59%). In line with June 2022 (Wave 9), more than half selected ‘likely to be stolen’ (54%) as a disadvantage, an increase of eleven percentage points on 43% in June 2021 (Wave 7).

‘Relies on recharging a battery’ (45%), being ‘too heavy’ (34%), and ‘hard to store’ (21%) were selected as disadvantages of e-cycles by higher proportions compared to June 2021 (Wave 7). A higher proportion selected ‘travels too fast’ as a disadvantage in December 2022 (Wave 10) than in June 2022 (Wave 9), 13% compared to 10%, but returning to levels seen in June 2021 (wave 7).

**Figure 6.9 – Disadvantages of e-cycles**



# 7 Appendix

## 7.1 Methodology

The Department for Transport (DfT) commissioned Ipsos to undertake a series of surveys to measure public awareness, attitudes and behaviours in relation to existing and emerging transport technologies, aiming to:

- fill gaps in knowledge about what the public know and think via a survey representative of those aged 16+ living in England; and
- identify and analyse differences between population subgroups.

DfT's Technology Tracker series involved a biannual face-to-face omnibus survey up from 2017 until Wave 5, conducted in December 2019. Due to the Coronavirus pandemic and the halt to face-to-face in-home interviewing, the survey moved to an online methodology for Wave 6, in August 2020, with a small number of respondents interviewed over the phone. All previous wave data can be found here:

<https://www.gov.uk/government/publications/transport-and-transport-technology-public-attitudes-tracker>

On behalf of DfT, Ipsos used its UK KnowledgePanel for the Technology Tracker series for the first time for Wave 7, conducted in June 2021, and this entirely online methodology has been used since. Due to a change in methodology, it is not possible to provide direct comparisons with previous waves. This comparison is not possible because:

- The survey wording has changed from previous waves so will not allow for direct comparison.
- The methodology change from face-to-face to online may have caused selection effects, i.e. the different individuals taking part in the survey as a result of the change in sampling approach.
- The change in interview mode may also have caused measurement effects, i.e. the difference in response given by respondents would not have been like-for-like considering the change in method.

Due to this methodological change, Wave 7, Wave 8 and Wave 9 also included a survey design phase, including cognitive testing of the questionnaire through telephone depth interviews - further details of which can be found in Section 8.3 of this appendix.

A representative sample of 3,207 adults aged 16+ across England completed the survey between 8<sup>th</sup> December and 14<sup>th</sup> December 2022. Wave 10, like Wave 7, Wave 8 and Wave 9, involved random probability sampling, meaning that quotas were not used. Instead, Ipsos stratified KnowledgePanel sample to account for over-/under-representation of groups and geographies within the composition of the panel as well as different response rates, before inviting panel members to take part.

To allow comparisons between ethnic minority groups and white respondents, the Department for Transport requested that Ipsos boosted the number of respondents from ethnic minority backgrounds in Wave 7 (resulting in an additional sample of 432) but this was not done in Wave 8, Wave 9 or Wave 10.

A full list of Waves and sample sizes can be seen below:

Wave	Fieldwork dates	Sample size (total, including boost)	Ethnic minority boost
Wave 7	24 <sup>th</sup> – 30 <sup>th</sup> June 2021	3,392	432
Wave 8	9 <sup>th</sup> – 15 <sup>th</sup> December 2021	3,219	N/A
Wave 9	30 <sup>th</sup> June – 6 <sup>th</sup> July 2022	3,162	N/A
Wave 10	8 <sup>th</sup> -14 <sup>th</sup> December 2022	3,207	N/A

Each of these waves used a fresh sample of KnowledgePanel members.

Data are weighted by age, gender, region, Index of Multiple Deprivation quintile, education, ethnicity and number of adults in the household in order to reflect the profile of the adult population in England.

This report focuses on the following demographic groups: age, ethnicity, urbanity, and household income based on the following categories: <£25,999, £26,000-£51,999, £52,000-£99,999, £100,000+.

Commentary focuses on significant differences *between* sub-groups in the same category (e.g. different age groups) based on a 95% confidence interval. Lack of reference to other groups and geographies does not mean there are not statistically significant differences – for example, men’s claimed levels of awareness and knowledge tend to be higher than women’s, and there are some differences between regions. Data tables of the full Wave 10 dataset are available on request and are published alongside this report.

The total sum of answer codes may appear to be higher/lower than 100% and combinations might not sum to their constituent parts (e.g. ‘agree’ relative to ‘strongly agree’/‘tend to agree’). This is due to the rounding of results to the nearest whole number.

## 7.2 KnowledgePanel methodology

Panellists are recruited via a random probability unclustered address-based sampling method. This means that every household in the UK has a known chance of being selected to join the panel. Letters are sent to selected addresses in the UK (using the Postcode Address File) inviting them to become members of the panel. Invited members are able to sign up to the panel by completing a short online questionnaire or by returning a paper form. Up to 2 members of the household are able to sign up to the panel. Members of the public who are digitally excluded are able to register to the KnowledgePanel either by post or by telephone, and are given a tablet, an email address, and basic internet access which allows them to complete surveys online.

The survey was designed using a ‘mobile-first’ approach, which took into consideration the look, feel and usability of a questionnaire on a mobile device. This included: a thorough review of the questionnaire length to ensure it would not over burden respondents from focusing on a small screen for a lengthy period, avoiding the use of grid style questions (instead using question loops which are more mobile friendly, and making questions ‘finger-friendly’ to they’re easy to respond to. The questionnaire was also compatible with screen reader software to help those requiring further accessibility.

The KnowledgePanel is a random probability survey panel. Therefore, the KnowledgePanel does not use a quota approach when conducting surveys. Instead invited samples are stratified when conducting waves to account for profile skews within the panel.

Two members per household are allowed to register on the KnowledgePanel. Therefore, we employ a design weight to correct for unequal probabilities of selection of household members.

Calibration weights are also applied using the latest population statistics relevant to the surveyed population.

- Calibration weighting was applied using the following variables: Region and an interlocked variable of Gender by Age. Both used ONS 2020 mid-year population estimates as the weighting target.
- Demographic weights were then applied to correct for imbalances in the achieved sample; the data was weighted on: Education, Ethnicity, Index of Multiple Deprivation (quintiles), and number of adults in the household. Estimates from the ONS 2020 mid-year population estimates and Annual Population Survey were used as the weighting target.

### 7.3 Questionnaire

The first set of questions are asked on behalf of the Department for Transport. The questions are about the different types of transport that you may use and your plans for the future.

#### ASK AGED 17+ ONLY

##### SINGLE CODE

##### Q101

#### Do you hold a valid UK car driving licence?

This includes international permits or other foreign licences valid in the UK.

**Please select one option only**

1. Yes, full licence for car
2. Yes, provisional licence for car
3. Currently disqualified
4. No, I do not hold a valid UK driving licence
998. Don't know

#### ASK ALL

##### SINGLE CODE

##### Q102

#### How many cars or vans does your household own or have continuous use of at present?

**Please include company cars if available for your private use. Please also include any broken-down cars or vans which may be in use within the next month.**

**Please select one option only**

1. 1
2. 2
3. 3 or more
4. None
998. Don't know



**ASK ALL WITH CARS/VANS IN HOUSEHOLD OR HAVE USE OF THEM (CODES 1-3 AT Q102)****SINGLE CODE****Q103**

Do you personally own or have continual use of a car or van?

*Please include company cars if available for your private use. Please also include any broken-down cars or vans which may be in use within the next month.*

*Please select one option only*

1. Yes
2. No
998. Don't know

**ASK ALL WHO HAVE PERSONAL USE/OWN A CAR OR VAN [CODE 1 AT Q103]****SINGLE CODE****W8 INT Q201**

Thinking now about the one car or van that you personally use the most, whether as driver or passenger, what fuel does the engine use?

*If you use two or more cars/vans equally, please think about the one you used most recently.*

*Please select one option only*

1. Petrol
2. Diesel
3. Electric/battery only
4. Non-plug-in hybrid
5. Plug-in hybrid
6. Liquefied Petroleum Gas (LPG)
7. Bi-fuel (a combination of any two of petrol or diesel or ethanol with natural gas or LPG)
8. Other (please specify)
998. Don't know

**ASK ALL WITH CARS/VANS IN HOUSEHOLD OR HAVE USE OF THEM (CODES 1-3 AT Q102)****SINGLE CODE****W8 INT Q202**

Which **ONE** of the following best describes where you/your household typically parks your vehicle?

**Please think about parking at the property where you live most of the time. If you don't have a vehicle, please answer depending on where you would be able to or most likely to park.**

*Please select one option only*

1. In a space I own or that is allocated to me/us such as a private driveway or garage
2. In a communal or shared car park at the property
4. In a private car park
5. In a public or council car park
6. On a road or street
6. Where a friend or family member lives
7. Other (please specify)

**ASK ALL WITH A VALID UK DRIVING LICENCE [CODES 1-3 AT Q101]****SINGLE CODE****Q104**

When, if at all, do you think you will personally next buy, lease or replace a car or van, either new or second hand?

*Please select one option only*

1. Within the next year
2. In more than 1 year, but up to 2 years
3. In more than 2 years, but up to 3 years
4. In more than 3 years, but up to 5 years
5. In more than 5 years
6. I don't intend to ever buy or replace a car/van
998. Don't know

**ASK ALL WHO INTEND TO BUY OR REPLACE A CAR/VAN- (CODES 1-5 AT Q104)****SINGLE CODE****Q105**

And is the car or van that you intend to buy or lease in the future more likely to be new or second hand?

*Please select one option only*

1. More likely to be a new car/van
2. More likely to be a second-hand car/van
998. Don't know

**ASK ALL WHO INTEND TO BUY OR REPLACE A CAR/VAN (CODES 1-5 AT Q104)****SINGLE CODE****Q106**

What type of car or van do you think you will most likely purchase or lease next time?  
If you would buy more than one type, please select which one you would use for your main vehicle.

*Please select one option only*

**RANDOMISE CODES 1-4**

1. Petrol car or van
2. Hybrid car or van (petrol and electric)
3. Diesel car or van
4. Electric/battery only car or van
5. Other **PLEASE SPECIFY [FIX]**
998. Don't know **[FIX]**

**ASK ALL WHO WILL MOST LIKELY PURCHASE A HYBRID CAR/VAN (CODE 2 AT Q106)****SINGLE CODE****Q107**

What type of hybrid car or van do you think you will most likely purchase or lease next time?

*Please select one option only*

**RANDOMISE CODES 1-2**

1. A plug-in hybrid (that plugs in to an external power source to recharge)
2. A non-plug-in hybrid (that recharges while driving and is ultimately fuelled by petrol or diesel – it cannot be plugged in to an external power source)
3. Undecided **[FIX]**
998. Don't know **[FIX]**

**ASK ALL**  
**SINGLE CODE**

**Q108**

Unlike hybrid cars or vans, battery electric vehicles run fully off electricity. These fully electric cars or vans plug in to an external power source to recharge.

Before today, how much, if anything, would you say you knew about electric cars or vans?

*Please select one option only*

1. A great deal
2. A fair amount
3. Just a little
4. Heard of, know nothing about them
5. Never heard of them
998. Don't know

**ASK ALL**  
**ALLOW MULTICODE 1-8**

**Q111**

Which of the following, if any, do you think are advantages of fully electric over petrol or diesel cars or vans?

*Please select all that apply*

**RANDOMISE CODES 1-7**

1. Environmental benefits (e.g. reduced pollution)
2. Cheaper to run or maintain
3. Less noisy
4. Reduced road tax
5. Better vehicle performance (e.g. speed, handling, size, looks)
6. No need to visit petrol stations to top-up fuel
7. Recharging is easier / more convenient than re-fuelling
8. Other **(SPECIFY) FIX**
9. None of these – I don't believe there are any advantages **FIX, EXCLUSIVE**
998. Don't know **FIX, EXCLUSIVE**

**ASK ALL**  
**ALLOW MULTICODE 1-9**

**Q113**

Which of the following, if any, do you think are disadvantages of electric over petrol or diesel cars or vans?

*Please select all that apply*

**RANDOMISE CODES 1-8**

1. Less distance can be travelled on one charge
2. Not enough charging points
3. Expensive to run or maintain
4. Knowing where and how to charge
5. The time taken to recharge
6. Cost to buy
7. The need to recharge
8. Negative impacts on the environment
9. Other **(SPECIFY) FIX**
10. None of these – I don't believe there are any disadvantages **FIX, EXCLUSIVE**
998. Don't know **FIX, EXCLUSIVE**

**ASK ALL**  
**SINGLE CODE PER STATEMENT**  
**W8 PUR Q203**

These next questions are about electric vehicle charging points – that is, places where members of the public can charge an electric vehicle perhaps when they are en route somewhere or because they cannot charge their vehicle at home. These are found in some car parks, at garages and service stations on motorways/major roads and in towns and cities. The images show some examples.



Thinking back to the **PAST MONTH** or so, did you see an electric vehicle charging point(s) in the following places or not? It does not matter whether or not you used the charging point.

**ALWAYS IN THIS ORDER**

- ...within your local area – that is within 15-20 minutes' walk or less than 5 minutes' drive?
- ...somewhere outside your local area?

*Please select one option only*

- Yes – did see an electric vehicle charging point
- No – did not see an electric vehicle charging point
- Don't know/can't remember

**ASK ALL WHO RESPONDED A/1 OR B/1 AT W8 PUR Q203**

**ALLOW MULTICODES AT 1 - 7**

**W8 PUR Q204**

You said that you have seen an electric vehicle charging point(s) in the past month. Where did you see it/them?

*Please select all that apply*

- On the street
- At a supermarket
- At a public or council car park
- At a workplace e.g. outside business offices
- At a garage/petrol station where you can refuel
- At a service station on a motorway/major road
- Other (please specify)
998. Don't know/can't remember **[EXCLUSIVE]**

**ASK ALL**  
**SINGLE CODE**  
**W8 PUR Q205**

Thinking about where you live most of the time, how far away is the nearest charging point for electric vehicles – that is, a point which can be used by any member of the public wanting to charge an electric vehicle? If you are not sure, please give your best estimate.

*Please select one option only*

1. Less than a mile away (approximately a 3-minute drive, 20-minute walk)
2. More than a mile but less than 5 miles away (up to a 15-minute drive, 1 hour walk)
3. More than 5 miles but less than 10 miles away (up to a 30-minute drive, 1.5 hour walk)
4. 10 miles or further away
998. Don't know

**ASK ALL**  
**OPEN ENDED**  
**W8 PUR Q206**

As you may know, some electric vehicle owners charge their vehicles at charging points situated in public places. What concerns would you have, if any, about using a charging point such as this once you had got there?

**[INCLUDE POP-UP QUESTION ICON WITH THE TEXT: For example at car parks, at garages and service stations on main roads and in towns cities.]**

*Please type your response in the text box below*

**[OPEN ENDED TEXT BOX]**

2. I would not have any concerns [EXCLUSIVE]
998. Don't know / need further information [EXCLUSIVE]

**ASK ALL**  
**SINGLE CODE**  
**W10 PUR Q401**

Vehicle Excise Duty (VED), commonly known as road tax, is a tax that must be paid to the DVLA once a year, by owners of vehicles which are to be used (or parked) on public roads.

Before today, were you aware that owners of battery electric vehicles will pay VED from 2025 having previously been exempt?

*Please select one option only*

1. Yes, aware of this
2. No, not aware of this

998. Don't know

**ASK ALL**  
**SINGLE CODE**  
**Q117**

Now a few questions about self-driving cars or vans, sometimes referred to as automated or autonomous cars or vans.

Self-driving vehicles are not yet available for everyday use in the UK – but we expect them to be available for use on roads later this year.

Before today, how much, if anything, would you say you knew about self-driving cars or vans?

*Please select one option only*

1. A great deal
2. A fair amount
3. Just a little
4. Heard of, know nothing about them
5. Never heard of them
998. Don't know

**ASK ALL****ALLOW MULTICODES 1-8**

Q119

**Which of the following, if any, do you think are advantages of self-driving vehicles?****Please select all that apply****RANDOMISE CODES 1-7**

1. They are safer due to less chance of driver error
2. Allow you to do other things while driving
3. They result in less driver fatigue
4. They enable better traffic flow and less congestion
5. Could allow anyone to drive
6. Less stressful due to not worrying about driving
7. Controls / regulates speed
8. Other **(SPECIFY) FIX**
9. None of these – I don't believe there are any advantages **FIX, EXCLUSIVE**
998. Don't know **FIX, EXCLUSIVE**

**ASK ALL****ALLOW MULTICODES 1-7**

Q121

**Which of the following, if any, do you think are disadvantages of self-driving vehicles?****Please select all that apply****RANDOMISE CODES 1-7**

1. Personal safety concerns (e.g. road traffic accidents)
2. Road safety concerns (e.g. vehicles' ability to safely complete a manoeuvre)
3. Loss of driver control
4. Drivers will become lazy and pay less attention
5. Over-reliance on technology
6. The technology is still unproven
7. Expensive to buy and maintain
8. Other **(SPECIFY) FIX**
9. None of these – I don't believe there are any disadvantages **FIX, EXCLUSIVE**
998. Don't know **FIX, EXCLUSIVE**

**ASK ALL**

W9 SDV Q302

**Self-driving vehicles are vehicles that are capable of safely and legally driving themselves in some circumstances and situations.****For the foreseeable future, they will have self-driving features, which means the vehicle will switch between the *vehicle being in control* (self-driving mode 'on') and the *driver being in control* (self-driving mode 'off').****Here are some statements about self-driving vehicles. For each one, please select whether you think it is true or false or whether you don't know.**

When using a self-driving vehicle as a driver and the self-driving mode is 'on'

**LOOP, SINGLE CODE PER ROW, RANDOMISE ROWS**

- A. I am **not responsible** for how the vehicle drives
  - B. **I am allowed** to use built-in screens to watch TV (i.e. the infotainment system)
  - C. **I do not have to be fit to drive** (e.g. I can sleep and drink alcohol)
  - D. **I am allowed** to use a mobile phone
1. True
  2. False
  998. Don't know

**ASK ALL**  
**SINGLE CODE**

**Q122**

An electric or motorized scooter is a scooter with a small engine or electric motor. An electric scooter is commonly referred to as an e-scooter. E-scooters can be purchased for private use or hired in a number of locations across the country.

Before today, how much, if anything, would you say you knew about electric scooters?



*Please select one option only*

1. A great deal
2. A fair amount
3. Just a little
4. Heard of, know nothing about them
5. Never heard of them
998. Don't know

**ASK ALL**  
**SINGLE CODE**

**Q123**

Do you personally own an electric scooter?

*Please select one option only*

1. Yes
2. No
998. Don't know

**ASK ALL**  
**SINGLE CODE**

**Q124**

How often, if at all, do you personally use a privately owned electric scooter in the UK?

*Please select one option only*

1. At least once a day
2. 5 or 6 times a week
3. 3 or 4 times a week
4. Once or twice a week
5. Less than that but more than twice a month
6. Once or twice a month
7. Less than that but more than twice a year
8. Once or twice a year
9. Less than once a year
10. Never

**ASK ALL**  
**SINGLE CODE**

**Q125**

How often, if at all, do you personally use a rental electric scooter in the UK?

*Please select one option only*

1. At least once a day
2. 5 or 6 times a week
3. 3 or 4 times a week
4. Once or twice a week
5. Less than that but more than twice a month
6. Once or twice a month
7. Less than that but more than twice a year
8. Once or twice a year
9. Less than once a year
10. Never

**ASK ALL WHO RESPONDED 1 – 9 AT Q124 OR Q125**

**MULTICODES 1-10**

**W8 ES Q209**

What are your reasons for using an e-scooter?

**Please only include travel within the UK.**

*Please select all that apply*

**RANDOMISE CODES 1-9**

1. Going for a ride
2. Other work-related reasons e.g. travelling to a meeting outside my usual place of work
3. Visiting friends / family
4. Going shopping
5. Going for a ride
6. Going to or from education (e.g. school, college, university etc.)
7. Going to or from a leisure activity (e.g. eating / drinking, cinema, music venue, playing sport etc.)
8. Going to or from a medical appointment (e.g. doctor, hospital, dentist etc.)
9. To get to public transport
10. Other (please specify) [FIX]
998. Don't know [FIX], [EXCLUSIVE]

**ASK ALL**  
**SINGLE CODE**

**W8 ES Q210**

How likely or unlikely are you to purchase an e-scooter in the next 12 months?

**REVERSE SCALE FOR HALF OF RESPONDENTS**

*Please select one option only*

1. Very likely
2. Fairly likely
3. Neither likely nor unlikely
4. Fairly unlikely
5. Very unlikely
998. Don't know



**ASK ALL**  
**SINGLE CODE**  
**W8 ES Q211**

**How likely or unlikely are you to hire an e-scooter in the next 12 months in the UK?**

**REVERSE SCALE FOR HALF OF RESPONDENTS**

*Please select one option only*

1. Very likely
2. Fairly likely
3. Neither likely nor unlikely
4. Fairly unlikely
5. Very unlikely
998. Don't know

**ASK ALL**

**ALLOW MULTICODES 1-14**  
**Q127**

**Which of the following, if any, do you think are advantages of electric scooters?**

*Please select all that apply*

**RANDOMISE CODES 1-13**

1. Environmental benefits (e.g. reduced pollution)
2. Quicker to get around than walking
3. Easy to use
4. Cheaper than other travel options
5. Able to easily store and carry (e.g. onto other forms of transport, into work)
6. Good alternative to cars
7. Convenient for short journeys
8. Increased use leads to less traffic/cars on the road
9. Fun to ride
10. Easy to park (if using rental e-scooter)
11. Good for people who can't travel (far) by foot/bike
12. The cost to buy or rent
13. A way of keeping active/healthy
14. Other **(SPECIFY) FIX**
15. None of these – I don't believe there are any advantages **FIX, EXCLUSIVE**
998. Don't know **FIX, EXCLUSIVE**

**ASK ALL**

**ALLOW MULTICODES 1-10**  
**Q129**

**Which of the following, if any, do you think are disadvantages of electric scooters?**

*Please select all that apply*

**RANDOMISE CODES 1-9**

1. Poses safety risk on busy roads
2. Poses safety risk to pedestrians (e.g. on the road, pavements)
3. Users do not follow law
4. Poses safety risk to the rider
5. Relies on recharging a battery
6. Fewer health benefits than cycling or walking
7. Weather dependent
8. Lack of regulation (e.g. no licence/insurance/helmet required)
9. Cost to buy
10. Other **SPECIFY, FIX**
11. None of these – I don't believe there are any disadvantages **FIX, EXCLUSIVE**
998. Don't know **FIX, EXCLUSIVE**

**ASK ALL****SINGLE CODE PER STATEMENT****W8 ES Q212****ROTATE STATEMENTS A/B, AND C/D FOR HALF OF RESPONDENTS**

**E-scooters can be purchased for private use or hired in a number of locations across the country.**

**Here are some statements about rules about using e-scooters in the UK. For each one I would like you to tell me whether you think it is true or false or whether you don't know.**

- A) If you own an e-scooter, you are legally allowed to ride it on pavements and footpaths?
- B) If you own an e-scooter, you are legally allowed to ride it on roads and cycle lanes?
- C) If you hire an e-scooter, you are legally allowed to ride it on pavements and footpaths?
- D) If you hire an e-scooter, you are legally allowed to ride it on roads and cycle lanes?

Please select one option only

- 1. True
- 2. False
- 998. Don't know

**ASK ALL****SINGLE CODE****Q137**

**An electric cycle or e-cycle, commonly referred to as an e-bike, is one that is powered by electricity as well as propelled by pedals.**

**Before today, how much, if anything, would you say you knew about e-cycles?**



***Please select one option only***

- 1. A great deal
- 2. A fair amount
- 3. Just a little
- 4. Heard of, know nothing about them
- 5. Never heard of them
- 998. Don't know

**ASK ALL****SINGLE CODE PER STATEMENT****W8 EC Q213****Do you personally own...**

- A. an e-cycle?
- B. a standard cycle (e.g. a push bike)?

*Please select one option only*

- 1. Yes
- 2. No
- 3. Don't know

**ASK THOSE WHO DO NOT OWN AN E-CYCLE (W8 EC Q213 STATEMENT A= 2 OR 3)****SINGLE CODE****W8 EC Q214****How likely or unlikely are you to purchase an e-cycle in the next 12 months?****REVERSE SCALE FOR HALF OF RESPONDENTS***Please select one option only*

- 1. Very likely
- 2. Fairly likely
- 3. Neither likely nor unlikely
- 4. Fairly unlikely
- 5. Very unlikely
- 998. Don't know

**ASK ALL****SINGLE CODE****Q138****How often, if at all, do you personally use an e-cycle?***Please select one option only*

- 1. At least once a day
- 2. 5 or 6 times a week
- 3. 3 or 4 times a week
- 4. Once or twice a week
- 5. Less than that but more than twice a month
- 6. Once or twice a month
- 7. Less than that but more than twice a year
- 8. Once or twice a year
- 9. Less than once a year
- 10. Never

**ASK ALL****SINGLE CODE****W8 EC Q215****How often, if at all, do you personally use a standard cycle (e.g. a push-bike)?***Please select one option only*

- 1. At least once a day
- 2. 5 or 6 times a week
- 3. 3 or 4 times a week
- 4. Once or twice a week
- 5. Less than that but more than twice a month
- 6. Once or twice a month
- 7. Less than that but more than twice a year
- 8. Once or twice a year
- 9. Less than once a year
- 10. Never

**ASK ALL WHO RESPONDED 1 – 9 AT Q138****MULTICODE CODES 1-10****W8 EC Q216**

**What are your reasons for using an e-cycle?**

**Please only include travel within the UK.**

**Please select all that apply**

**RANDOMISE CODES 1-9**

1. Going to or from work
2. Other work-related reasons e.g. travelling to a meeting outside my usual place of work
3. Visiting friends / family
4. Going shopping
5. Going for a ride
6. Going to or from education (e.g. school, college, university etc.)
7. Going to or from a leisure activity (e.g. eating / drinking, cinema, music venue, playing sport etc.)
8. Going to or from a medical appointment (e.g. doctor, hospital, dentist etc.)
9. To get to public transport
10. Other **(PLEASE SPECIFY) [FIX]**
998. Don't know **[FIX, EXCLUSIVE]**

**ASK ALL****ALLOW MULTICODES 1-7****Q140**

**Which of the following, if any, do you think are advantages of e-cycles?**

**Please select all that apply**

**RANDOMISE CODES 1-6**

1. Environmental benefits (e.g. reduced pollution)
2. A way of keeping active/healthy
3. Less effort required than a normal bike
4. Can travel further distances than a normal bike
5. Can travel faster than a normal bike
6. More accessible for those with mobility issues
7. Other **SPECIFY, FIX**
8. None of these – I don't believe there are any advantages **FIX, EXCLUSIVE**
998. Don't know **FIX, EXCLUSIVE**

**ASK ALL****ALLOW MULTICODES 1-8****Q142**

**Which of the following, if any, do you think are disadvantages of e-cycles?**

**Please select all that apply**

**RANDOMISE CODES 1-7**

1. They are expensive to buy
2. Too heavy
3. Likely to be stolen
4. Travels too fast
5. Hard to store
6. Do not offer health benefits
7. Relies on recharging a battery
8. Other **SPECIFY, FIX**
9. None of these – I don't believe there are any disadvantages **FIX, EXCLUSIVE**
998. Don't know **FIX, EXCLUSIVE**

**ASK ALL**  
**SINGLE CODE**  
**W8 EC Q216B**

An e-cycle share scheme is a service that allows people to pay to hire an e-cycle by collecting it from a “docking” point such as a bike rack or a “dockless” location such as a pavement or where it has been left by previous users. This could involve share schemes that are available to anyone, or they could be targeted share schemes that are available to employees in a workplace, or community groups.

How likely or unlikely would you be to use an e-cycle share scheme if it was available in your area?

**REVERSE SCALE FOR HALF OF RESPONDENTS**

*Please select one option only*

1. Very likely
2. Fairly likely
3. Neither likely nor unlikely
4. Fairly unlikely
5. Very unlikely
998. Don't know

## 8 Our standards and accreditations

Ipsos' standards and accreditations provide our clients with the peace of mind that they can always depend on us to deliver reliable, sustainable findings. Our focus on quality and continuous improvement means we have embedded a "right first time" approach throughout our organisation.



### ISO 20252

This is the international market research specific standard that supersedes BS 7911/MRQSA and incorporates IQCS (Interviewer Quality Control Scheme). It covers the five stages of a Market Research project. Ipsos was the first company in the world to gain this accreditation.



### Market Research Society (MRS) Company Partnership

By being an MRS Company Partner, Ipsos endorses and supports the core MRS brand values of professionalism, research excellence and business effectiveness, and commits to comply with the MRS Code of Conduct throughout the organisation. We were the first company to sign up to the requirements and self-regulation of the MRS Code. More than 350 companies have followed our lead.



### ISO 9001

This is the international general company standard with a focus on continual improvement through quality management systems. In 1994, we became one of the early adopters of the ISO 9001 business standard.



### ISO 27001

This is the international standard for information security, designed to ensure the selection of adequate and proportionate security controls. Ipsos was the first research company in the UK to be awarded this in August 2008.



### The UK General Data Protection Regulation (GDPR) and the UK Data Protection Act (DPA) 2018

Ipsos is required to comply with the UK GDPR and the UK DPA. It covers the processing of personal data and the protection of privacy.



### HMG Cyber Essentials

This is a government-backed scheme and a key deliverable of the UK's National Cyber Security Programme. Ipsos was assessment-validated for Cyber Essentials certification in 2016. Cyber Essentials defines a set of controls which, when properly implemented, provide organisations with basic protection from the most prevalent forms of threat coming from the internet.



### Fair Data

Ipsos is signed up as a "Fair Data" company, agreeing to adhere to 10 core principles. The principles support and complement other standards such as ISOs, and the requirements of Data Protection legislation.

# For more information

3 Thomas More Square  
London  
E1W 1YW

t: +44 (0)20 3059 5000

[www.ipsos.com/en-uk](http://www.ipsos.com/en-uk)  
<http://twitter.com/ipsosUK>

## About Ipsos Public Affairs

Ipsos Public Affairs works closely with national governments, local public services and the not-for-profit sector. Its c.200 research staff focus on public service and policy issues. Each has expertise in a particular part of the public sector, ensuring we have a detailed understanding of specific sectors and policy challenges. Combined with our methods and communications expertise, this helps ensure that our research makes a difference for decision makers and communities.

