Transport for London

PHV Rapid Charging Points: Research findings

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v3.0

Future thinking

MAYOR OF LONDON

Transport for London

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Background and objectives

Background

***ZEC definition:** *To be classed as ZEC, private hire vehicles must meet the government's Plug-in Car Grant criteria, emitting either up to 50 g/km of CO_2 with a minimum zero emission range of 10 miles, or up to 75 g/km of CO_2 with a minimum zero emission range of 20 miles i.e. plug-in vehicles*

In 2015 Transport for London's Ultra Low Emission Vehicle (ULEV) Delivery Plan outlined plans to increase the uptake of ULEVs in London, to make it the electric vehicle capital of Europe, with ULEVs as a core part of the sustainable transport system. Starting in 2020, TfL will be phasing licensing requirements, to ensure that by 1 January 2023, all vehicles granted a private hire licence for the first time will be zero emission capable (ZEC*), regardless of age.

Previous research with drivers and fleet operators has found that a key barrier to investing in low emission vehicles was the provision of adequate charging infrastructure that meets operational needs. To support the introduction of ZEC taxis and private hire vehicles and encourage the early uptake of ultra-low emission vehicles in commercial fleets TfL has committed to addressing this barrier and developing London's rapid electric vehicle charging infrastructure. By the end of 2018, TfL plans to have 150 new rapid charge points in London and by 2020 it is estimated that this will have doubled to 300.

In order to deliver this plan, TfL needs to understand charge point requirements, focusing on two elements:

- Location – where the charge points will be needed
- Volume – how many charge points will be required at each location

TfL has engaged with London boroughs and a wide range of private sector organisations, vehicle manufacturers and charge point manufacturers as well as exploring possible sites on the Transport for London Road Network (TLRN) and across the TfL portfolio. They have also already conducted some research among Black cab/taxi drivers and fleet operators and now wish to widen the research to include the Private Hire Vehicles (PHV) trade (both drivers and operators).

Objectives

In advance of the introduction of ZEC licensing requirements, TfL would like to gather the following information to inform TfL's rapid charging infrastructure project and development of Charging Infrastructure Location Guidance, building on previous work already undertaken

The research specifically sought to determine:

- Where PHV drivers would like to see rapid charging points installed in London
- Average mileage driven per day (for commuting, while working and other purposes)
- Where drivers are taking their breaks / waiting between jobs
- Where they regularly pick up and drop off passengers
- Where drivers are parking their vehicles at the end of their shift
- Drivers' travel patterns during the day and at night
- Understand potential uptake of electric vehicles among PHV drivers
- Understand the perceived advantages and disadvantages of electric vehicles

Method and sample

Method and sample

Method

10-minute online survey with PHV drivers, largely based on a similar questionnaire previously administered among black cab drivers

- **A client database of 74,364 PHV drivers were invited to take part in the survey via unique survey links – 1,751 completed the survey (ie 2.4% of the sample)**
- **A generic link was also included in a PHV weekly e-bulletin – 52 completes were achieved via this method**

Research conducted by Future Thinking

Questionnaire available upon request

Sample achieved

A total of 1803 interviews were achieved:

- **Minicab drivers – 1449**
- **Chauffeur / executive car drivers – 303**
- **Limousine drivers – 10**
- **Driver guide / tour guide – 14**
- **Other – 27**

Net: Other – 51

NB throughout this report differences between driver types are highlighted where the differences are statistically significant and are denoted by **% in green**

Research conducted between 18/10/2016 – 01/11/2016

Research conducted in compliance with ISO 20252 standards

Key findings

Key findings

- While two thirds of PHV drivers operate in **all** London boroughs, they are most likely to work in **central London**. Drop-offs and pick-ups are also most commonly made in **central postcode areas**
  - As such, when drivers mentioned **specific areas** they would like to see **rapid charging points available** these tended to be **centrally located**
- The majority of PHV drivers make **daily pick-ups from London airports**, with Heathrow visited most often and airports appear to be a **key location type** to consider when introducing rapid charging points
  - A third of PHV drivers, particularly chauffeurs / executive car drivers, would like to see rapid charging points available at **airports**
- Vehicles are generally **left close to home** at the end of a shift, indicating that electric PHVs could potentially be **charged fully at home** between shifts then **topped-up by rapid charging points** when drivers are working
- Most PHVs are currently **diesel-powered** (particularly executive cars) and **just two per cent currently drive a ZEC vehicle**
  - That said, the **majority** of PHV drivers would **consider purchasing some type of electric vehicle** when they come to **replace** their current vehicle
  - Additionally, most drivers intend to **replace their current vehicle before 2020** regardless of when the vehicle was acquired
- The advantages of electric vehicles are **generally acknowledged** by PHV drivers, particularly the **reduced environmental impact** and **potential cost savings**
  - Highlighting the wider benefits of electric vehicles may be key to **increasing uptake** among PHV drivers, particularly as some seem **uninformed** about certain advantages at present
- Conversely, drivers also perceive there to be various barriers to operating an EV, with **range anxiety** and the **impact on their daily work of needing to charge the vehicle** the main concerns
  - PHV drivers will likely need to be ensured that there is a **robust**, **reliable** and **functioning** rapid charging infrastructure in place to **help allay these concerns**

Current driving patterns

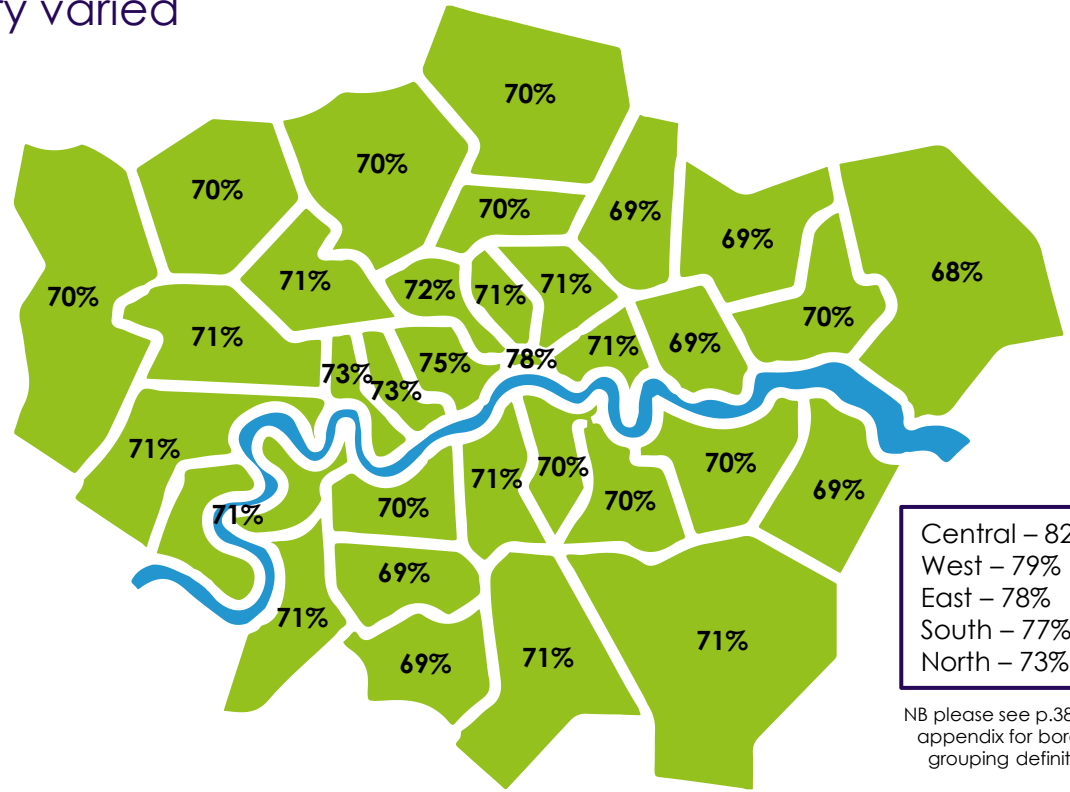
PHV drivers are most likely to operate in central London

However, their repertoire is very varied

67% of PHV drivers work in **all** London boroughs

Correspondingly, drivers would generally want to see **rapid charging points** introduced in **central locations**:

- **W1** – 10%
- **'Central London'** – 5%
- **SW1** – 4%
- **City of London** – 4%
- **E1** – 3%
- **EC1** – 3%



NB please see p.38 in the appendix for borough grouping definitions

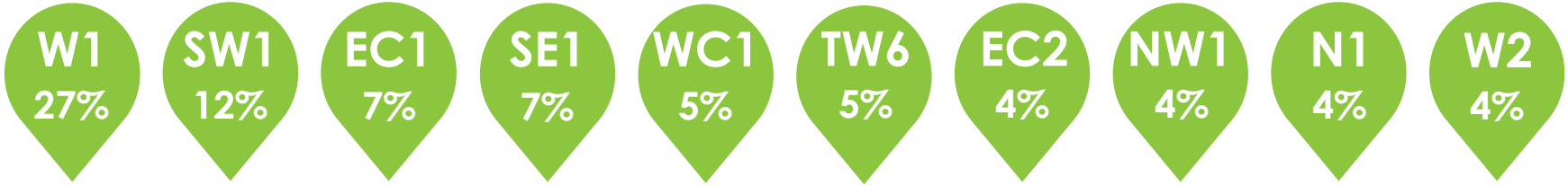
QS2a. In which of the following London boroughs, if any, do you currently operate a private hire vehicle (PHV)? QE2. Imagine that you drove an electric PHV that needs charging during the day, please tell us where you would like to see rapid charge points available in London.

Base: All respondents (1803)

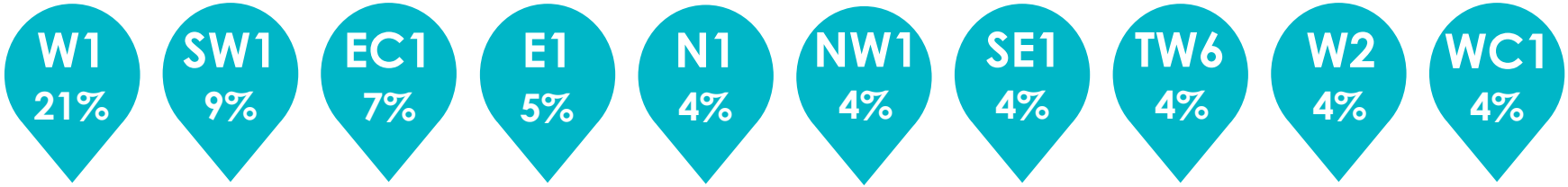
PHV drivers mainly pick up and drop off passengers in central London (W1, SW1 and EC1); Heathrow airport (TW6) is also fairly popular

These could be key areas for introducing rapid charging points

Most common **drop-off** points



Most common **pick-up** points



Other postcode areas mentioned by less than 4% of respondents

NB % are combination of first / second / third most frequent

QJ7. Please enter the three postcode areas (e.g. W1, SE10) in which you most frequently drop off and pick up passengers, starting with the most frequent.
Base: All respondents (1803)

The majority of PHV drivers pick up passengers from a London airport on a daily basis

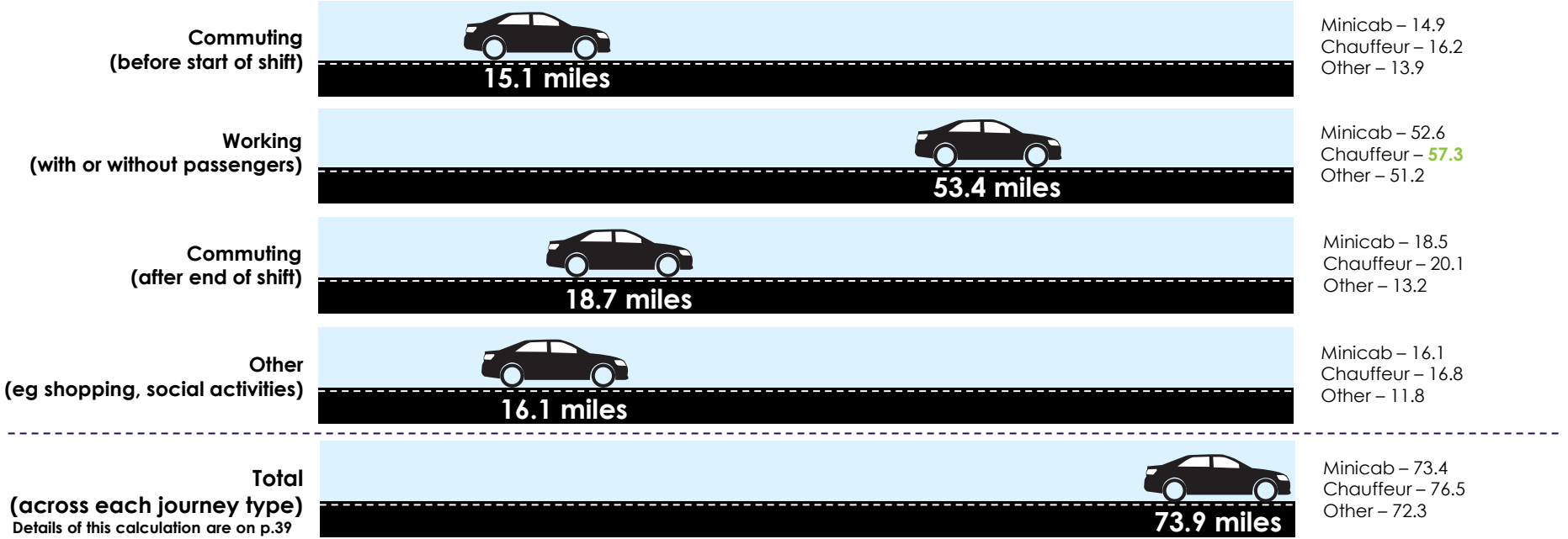
Heathrow is by far the most commonly visited, indicating that this may be a prime location for rapid charging points

QJ9. At which of the following London airports do you pick up passengers on a daily basis? Base: All respondents (1803); All picking up passengers from airports on a daily basis (1035)

On average, PHV drivers travel over 70 miles during a typical working day

Chauffeurs / executive car drivers' average mileage during a shift is significantly higher than those driving minicabs or other vehicles

Average miles driven on a typical working day



NB average miles driven are only indicative and not necessarily representative of all drivers – e.g. 33% drive 0-10 miles while working and 39% drive more than 90 miles.

QJ5. On a typical working day, how many miles do you drive in your PHV for each of the journey types listed below? Base: All respondents (1803), Minicab drivers (1449), Chauffeurs / executive car drivers (303), Other (51)

There appear to be certain morning and evening periods when PHV drivers are more likely to start and finish working

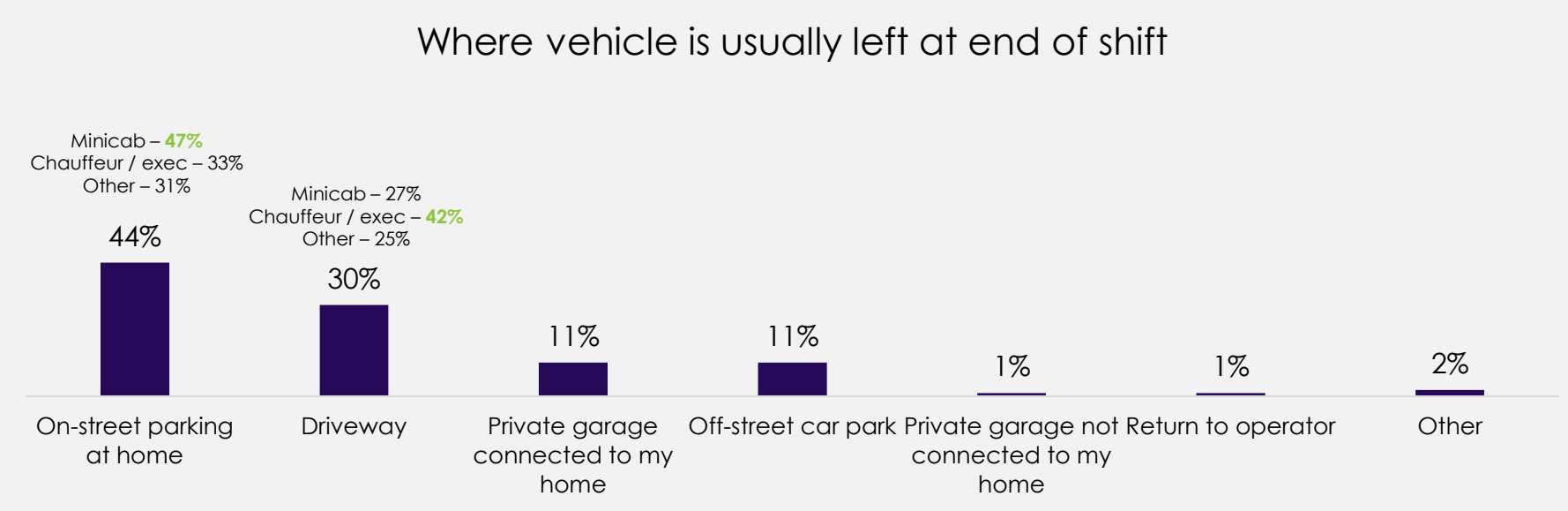
Despite the 'PM' shifts generally starting between 4-8pm each day, those working 'PM' shifts on Fridays and Saturday tend to finish later than during the week or on Sundays

	Monday to Thursday		Friday		Saturday		Sunday	
	AM	PM	AM	PM	AM	PM	AM	PM
% Start	4-8am 39%	4-8pm 20%	4-8am 33%	4-8pm 25%	4-10am 33%	4-8pm 25%	4-10am 28%	4-8pm 16%
% Finish (of those starting at times above)	4-8pm 43%	12-4am 44%	4-8pm 38%	2-6am 52%	4-8pm 36%	2-6am 54%	4-8pm 34%	12-4am 39%
	4% do not work Mon-Thurs		2% do not work Fridays		8% do not work Saturdays		23% do not work Sundays	

QJ3a. Please select the time when you normally first start working, i.e. the time from which you are first available to pick up a passenger. / QJ3b. Please select the time when you normally finish working, i.e. the time from which you are no longer available to pick up passengers. Base: All respondents (1803)

Drivers usually leave their PHV close to home at the end of their shift

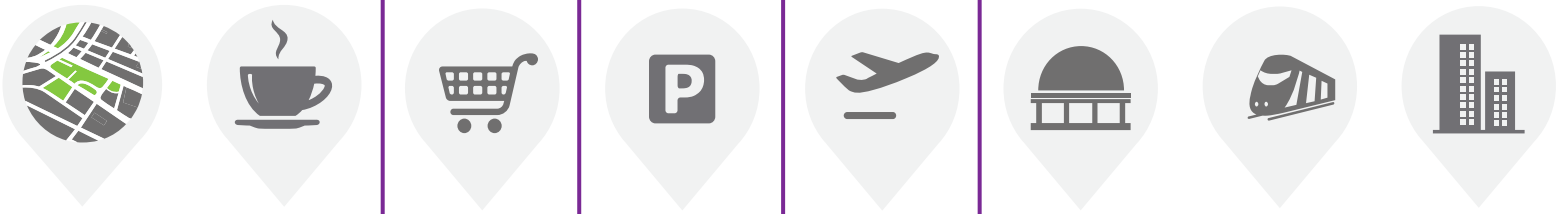
Electric PHVs could therefore potentially be fully charged at home between shifts, with 'top-up' charging done throughout the day at rapid charging points



QV9. Where do you most often leave your PHV at the end of your shift? Base: All respondents (1803), Minicab drivers (1449), Chauffeurs / executive car driver (303), Other (51)

Rapid charging points would be most welcome at supermarkets and airports despite not being the most commonly used locations when drivers take breaks

Chauffeurs / executive car drivers in particular would like to see rapid charging points available at airports

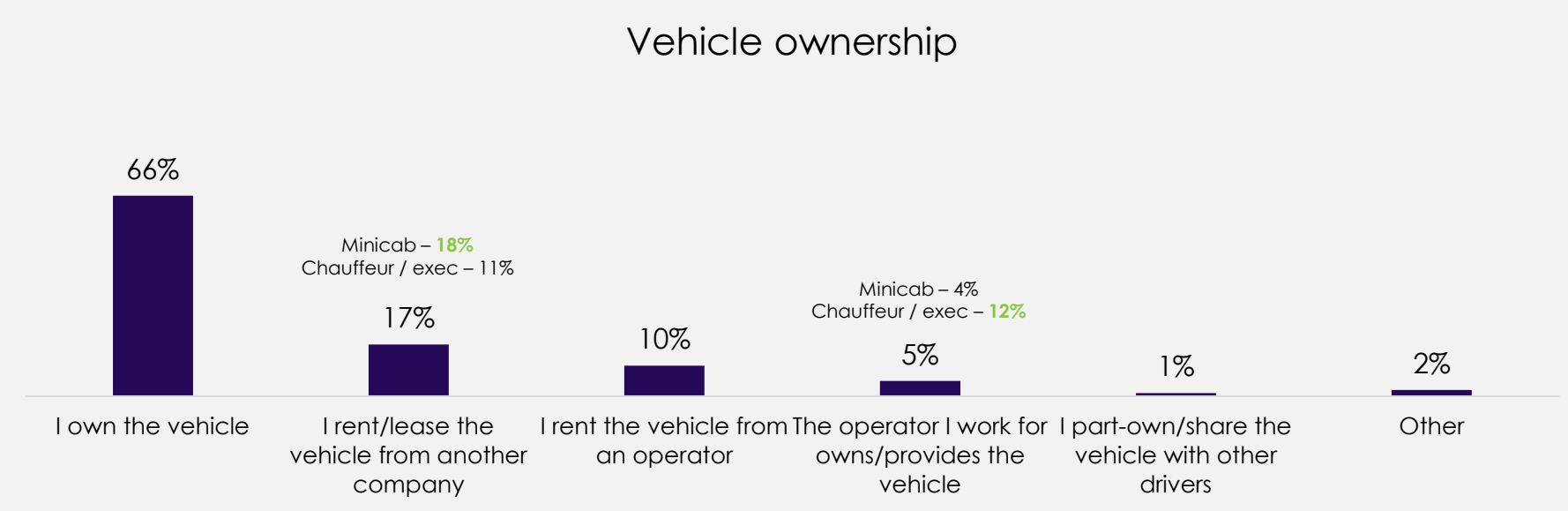


	Residential streets	Near refreshment facilities	Supermarkets	Public car parks	Near airports	Shopping centres	Near train / Tube stations	Near operator's office
Ever use for taking breaks	**68%**	**65%**	**58%**	**53%**	**52%**	**44%**	**42%**	**29%**
Would like to see rapid charging points available	**4%**	**2%**	**28%**	**6%**	**32%** Minicab – 31% Chauffeur – **43%** Other – 20%	**4%**	**5%**	**-**

QJ12. Please use the table below to tell us where you usually wait between jobs or take breaks and how long you typically spend at each location.
QE2. Imagine that you drove an electric PHV that needs charging during the day, please tell us where you would like to see rapid charge points available in London.
Base: All respondents (1803), Minicab drivers (1449), Chauffeurs / executive car driver (303), Other (51)

PHV drivers tend to own the vehicles themselves

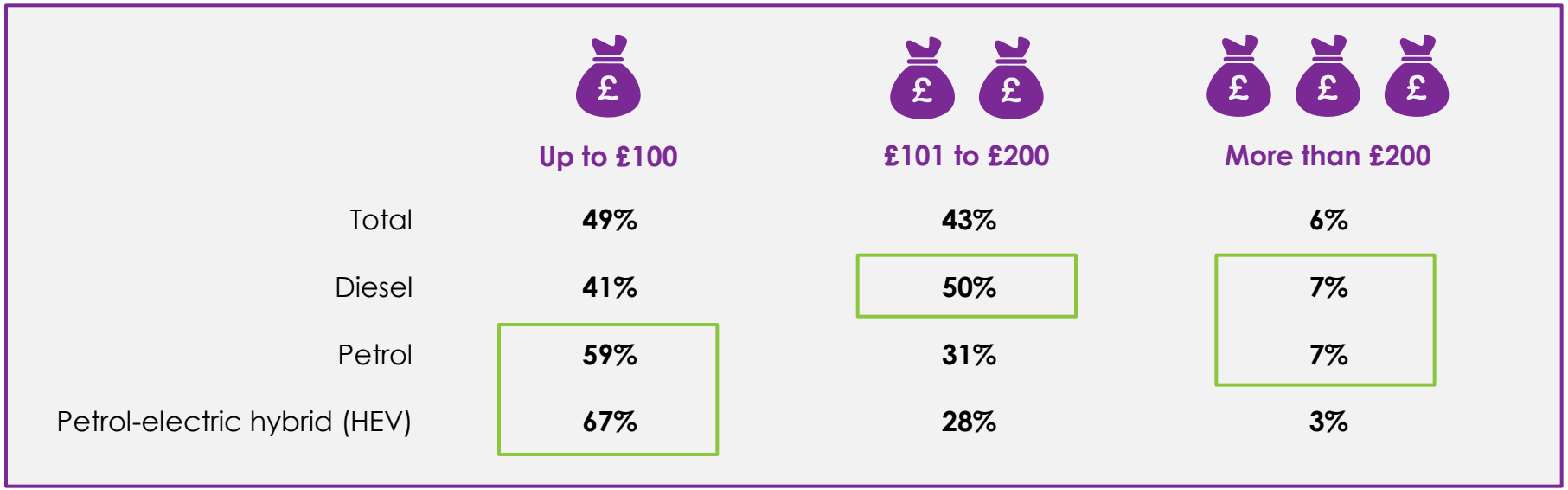
Minicab drivers more likely than chauffeurs to rent or lease the vehicle from another company; chauffeurs more likely than minicab drivers to drive a vehicle owned by their operator



QV1. Which of the following best describes how you currently operate your PHV? Base: All respondents (1803), Minicab drivers (1449), Chauffeurs / executive car driver (303)

Weekly spend is higher among those driving diesel vehicles

Therefore, making PHV drivers more aware of the like-for-like cost savings of EVs could potentially encourage switching



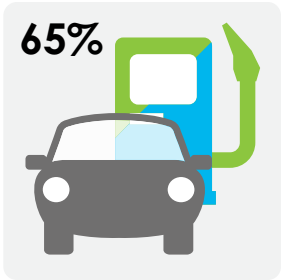
	Up to £100	£101 to £200	More than £200
Total	49%	43%	6%
Diesel	41%	50%	7%
Petrol	59%	31%	7%
Petrol-electric hybrid (HEV)	67%	28%	3%

QV6. How is your PHV powered? Base: All respondents (1803), Diesel (1181), Petrol (110), HEV (477)
QV8. What is your estimated weekly spend on fuelling/powering your PHV? Base: All respondents (1803), Diesel (1181), Petrol (110), HEV (477) DK responses not shown

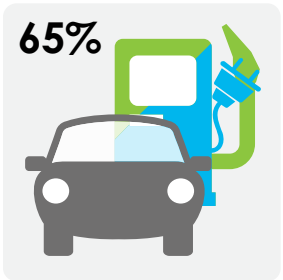
Attitudes towards and usage of electric vehicles

PHV drivers most likely to consider purchasing a hybrid vehicle in future

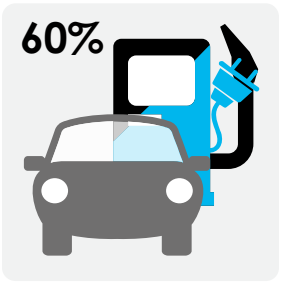
However, a majority would still consider purchasing a diesel vehicle in future even if electric charge points were available – mainly chauffeurs / executive car drivers



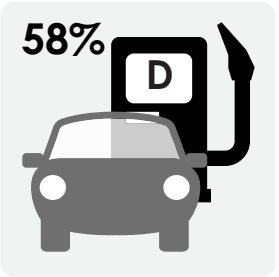
Petrol-Electric hybrid (HEV)
Minicab – 69%
Chauffeur / exec – 49%
Other – 53%



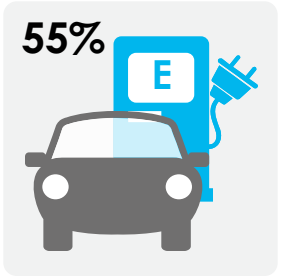
Plug-in Hybrid petrol-electric
Minicab – 63%
Chauffeur / exec – 50%
Other – 45%



Plug-in Hybrid diesel-electric

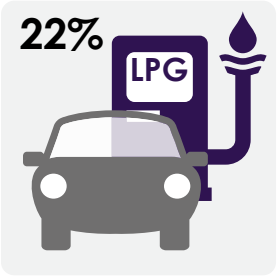


Diesel
Minicab – 54%
Chauffeur / exec – 75%
Other – 73%

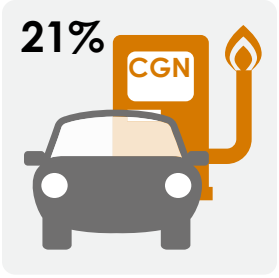


Pure electric
Minicab – 58%
Chauffeur / exec – 44%
Other – 33%

Petrol



Liquefied petroleum gas (LPG)



Compressed natural gas (CNG)
Minicab – 22%
Chauffeur / exec – 14%
Other – 25%

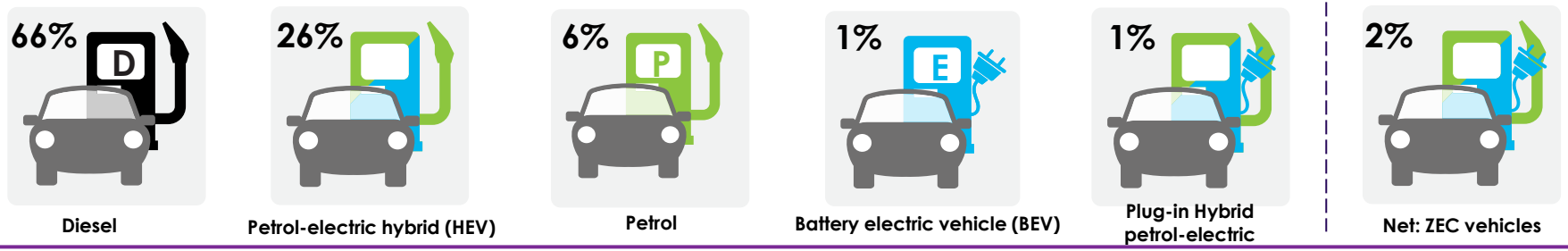
% likely / very likely to consider purchasing each fuel type

QE1. When you come to replace your current PHV, assuming there are electric charge points available, how likely or unlikely are you to consider purchasing a vehicle with the following fuel types? Base: All respondents (1803), Minicab drivers (1449), Chauffeurs / executive car driver (303), Other (51)

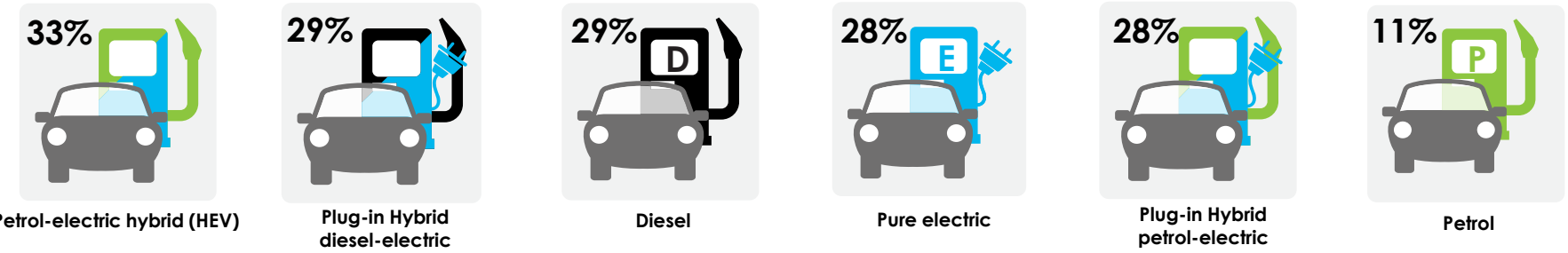
Most drivers' PHVs are fuelled by diesel and only two per cent currently drive a ZEC vehicle

And the majority of drivers are likely to consider purchasing an electric vehicle in future

Current picture of PHV fuel types (% of drivers using each fuel type)



How London's PHV fleets could look in future (% likely to consider)

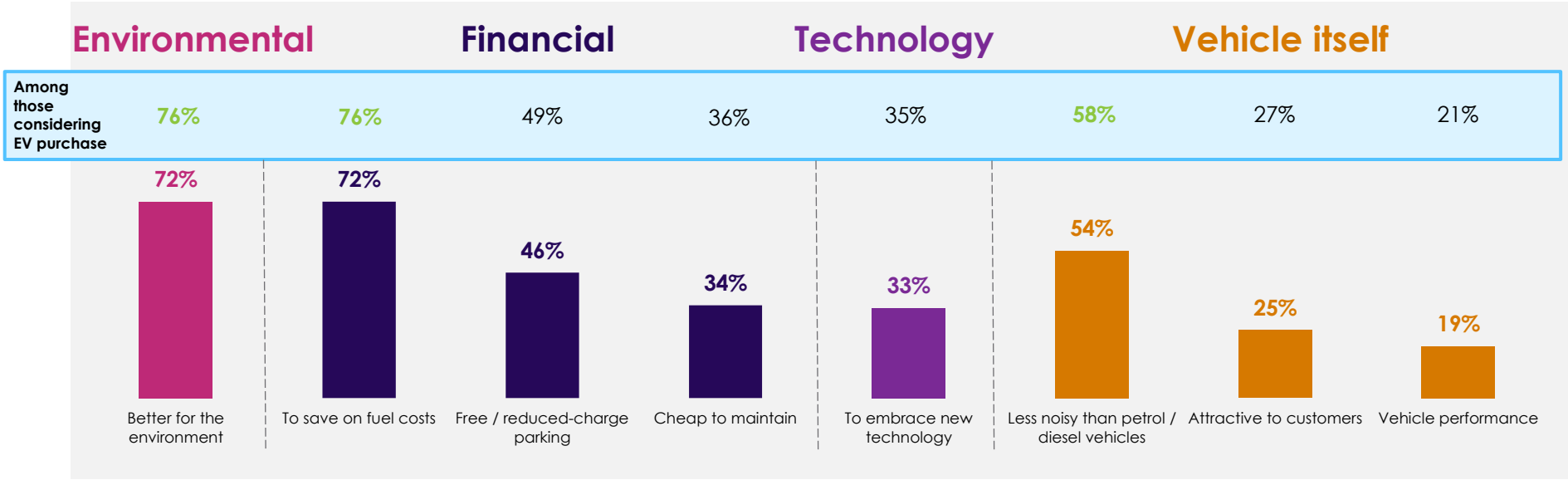


NB to calculate 'likelihood to consider', we have applied a weighting factor of 0.8 to the number 'very likely' to consider purchasing each vehicle type and a factor of 0.2 to the number 'likely' to consider

QV6. How is your PHV powered? / QE1. When you come to replace your current PHV, assuming there are electric charge points available, how likely or unlikely are you to consider purchasing a vehicle with the following fuel types? Base: All respondents (1803)

The main perceived advantages of EVs are their reduced impact on the environment and saving on fuel costs

Highlighting the full range of benefits to PHV drivers may be key to encouraging uptake as drivers do not seem to be that well informed of some of the advantages at present



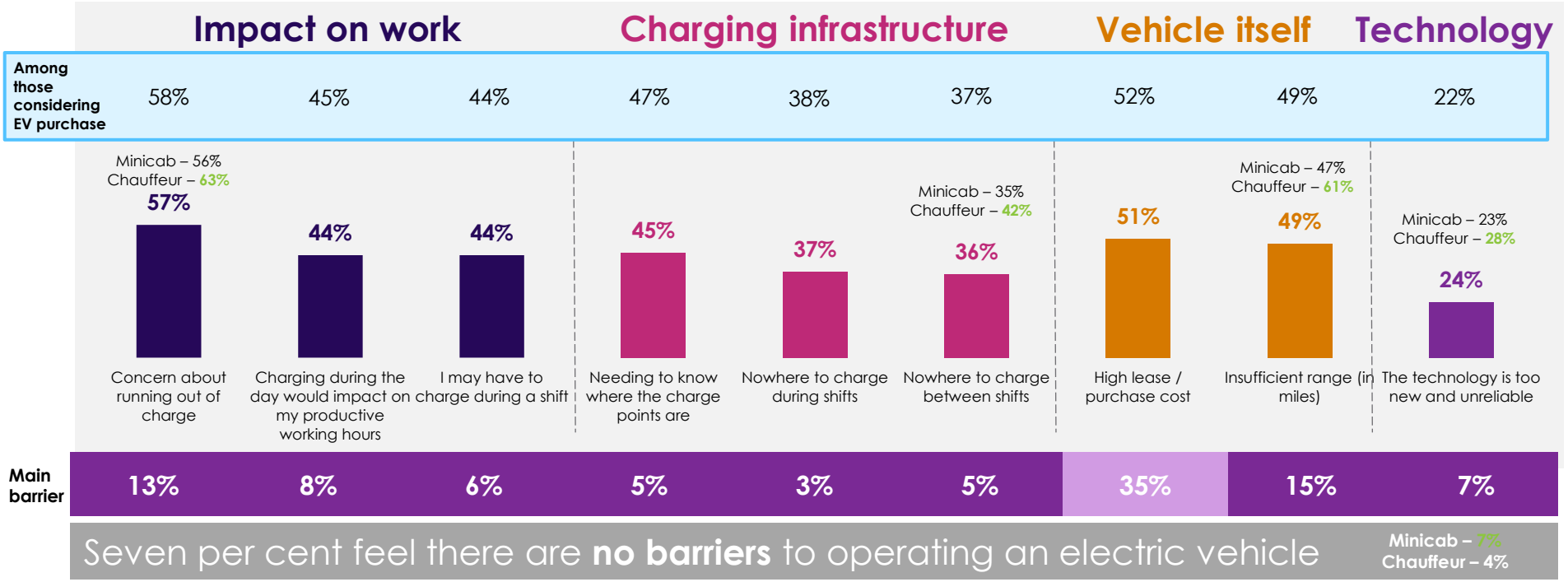
Six per cent feel there are **no advantages** of operating an electric vehicle

Significantly higher than total

QE4. And what do you consider to be the advantages of operating an electric vehicle, if any? Base: All respondents (1803), All likely to consider purchasing an EV (1531)

PHV drivers are most concerned about the electric range of EVs and the potential impact that needing to charge an EV would have on their daily work

Chauffeurs / executive drivers appear to be more concerned than minicab drivers, possibly due to their significantly higher average daily mileage for work purposes



Seven per cent feel there are **no barriers** to operating an electric vehicle

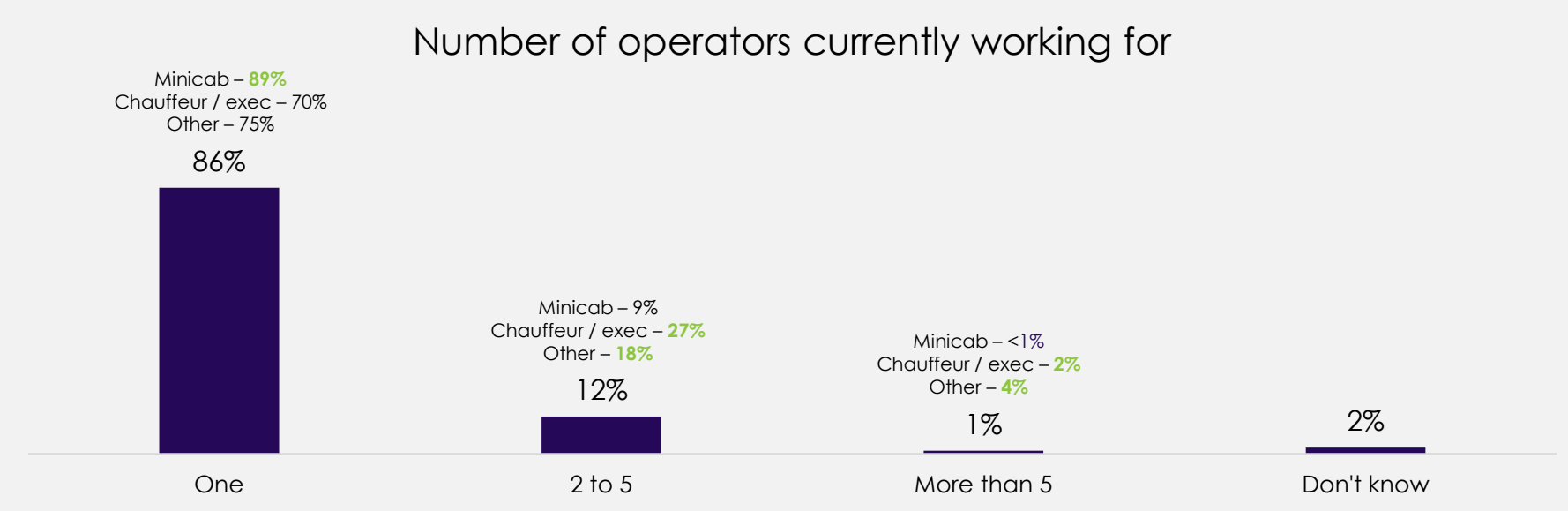
Minicab – 7%
Chauffeur – 4%

QE3. What do you consider to be the barriers to operating an electric vehicle, if any? Base: All respondents (1803), Minicab drivers (1449), chauffeurs / executive car drivers (303), All likely to consider purchasing an EV (1531) / QE5. What is the main reason that you haven't purchased an electric vehicle yet? Base: All who don't drive an EV and consider there to be barriers to using one (1669)

Appendix

Most drivers work for a single operator, particularly minicab drivers

Working for multiple operators is more common among chauffeurs / executive drivers compared to minicab drivers



QJ2a. How many private hire operators do you currently work for? Base: All respondents (1803), Minicab drivers (1449), Chauffeurs / executive car driver (303)

Saloon cars are the most commonly driven vehicle, particularly among chauffeurs

Across each vehicle type, only a minority are wheelchair accessible in contrast to black cabs

Saloon	Hatchback	MPV	People carrier
47%	**20%**	**18%**	**9%**
			
Minicab – 41% Chauffeur / exec – **77%** Other – 33%	Minicab – **23%** Chauffeur / exec – 3% Other – **12%**	Minicab – **20%** Chauffeur / exec – 10% Other – **22%**	Minicab – **11%** Chauffeur / exec – 4%
2%	**4%**	**5%**	**2%**

QV4. What type of PHV do you drive? / QV5. Is your PHV wheelchair accessible?
Base: All respondents (1803), Minicab drivers (1449), Chauffeurs / executive car driver (303), Other (51)

There are some clear differences between makes of minicabs and executive cars

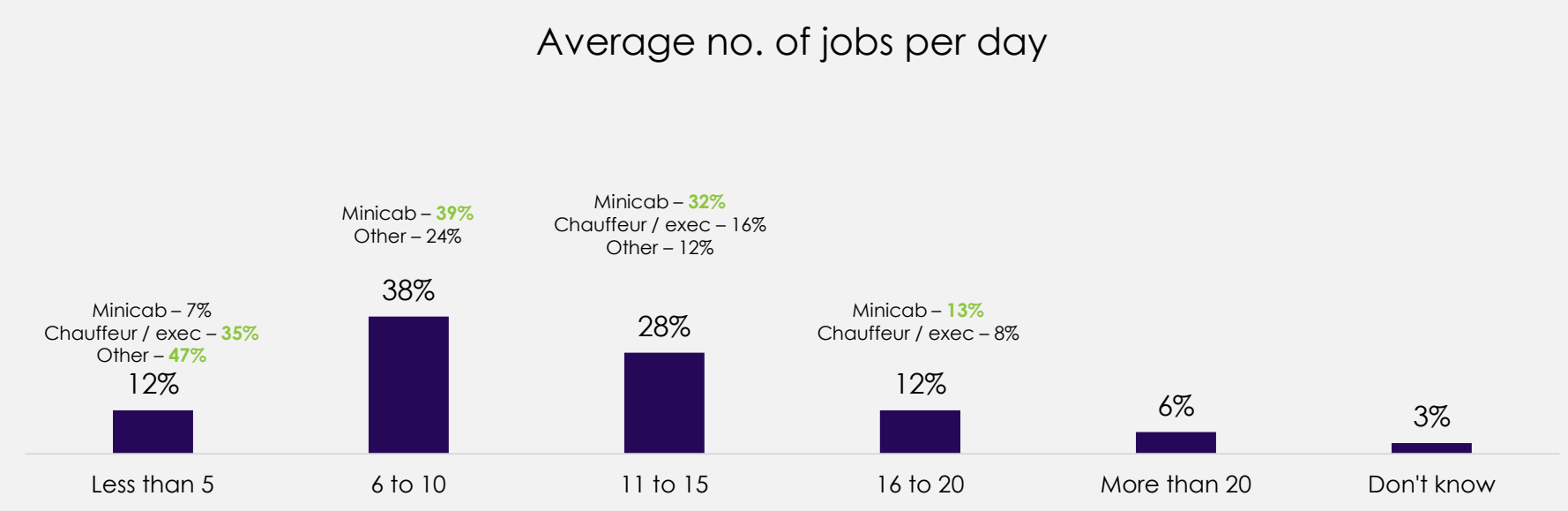
28%	16%	15%	10%
TOYOTA		Ford	
Minicab – 33% Chauffeur / exec – 6%	Minicab – 6% Chauffeur / exec – 61%	Minicab – 17% Chauffeur / exec – 4%	Minicab – 11% Chauffeur / exec – 2%
9%	**4%**	**3%**	**3%**
	BMW		CITROËN
Minicab – 11% Chauffeur / exec – 2%	Minicab – 2% Chauffeur / exec – 10%	Minicab – 3% Chauffeur / exec – 1%	Minicab – 3% Chauffeur / exec – 0%

Other makes mentioned by less than 3% of respondents

QV11. What make is the PHV that you drive most often? By 'make', we mean e.g. Toyota, Mercedes-Benz, Vauxhall. Base: All respondents (1803), Minicab drivers (1449), Chauffeurs / executive car drivers (303)

The majority of drivers undertake up to 15 jobs per day

As might be expected, minicab drivers appear to work more jobs per day than chauffeurs / executive drivers

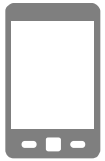


QJ2. In an average working day, how many jobs do you think you do? Base: All respondents (1803), Minicab drivers (1449), Chauffeurs / executive car driver (303), Other (51)

Jobs are mainly allocated to drivers via an app on their mobile device

Chauffeurs / executive drivers are more likely than minicab drivers to be allocated jobs via other methods

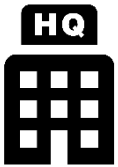
87%



Through app on mobile device

Minicab – **92%**
Chauffeur / exec – 73%
Other – 55%

12%



At the office

Minicab – 9%
Chauffeur / exec – **20%**
Other – **27%**

8%

By phone call

Minicab – 4%
Chauffeur / exec – **21%**
Other – **22%**

2%

Email

Minicab – 0%
Chauffeur / exec – **10%**
Other – **10%**

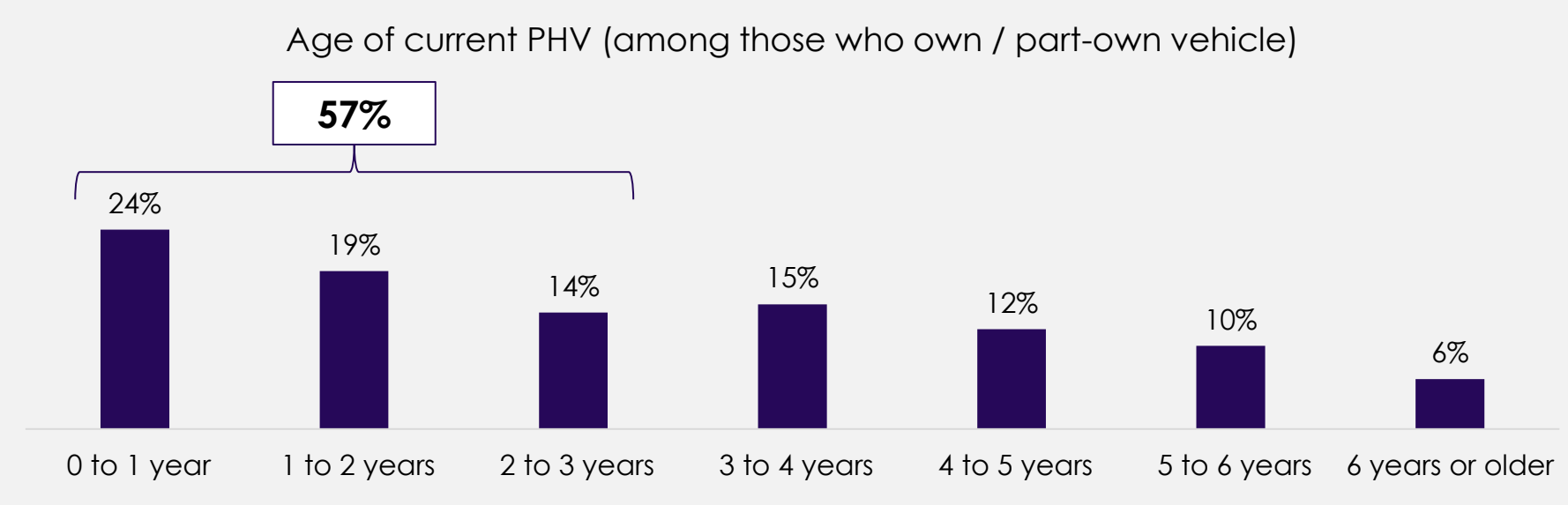
2%

PDA / XDA / MDA

Minicab – 2%
Chauffeur / exec – **3%**

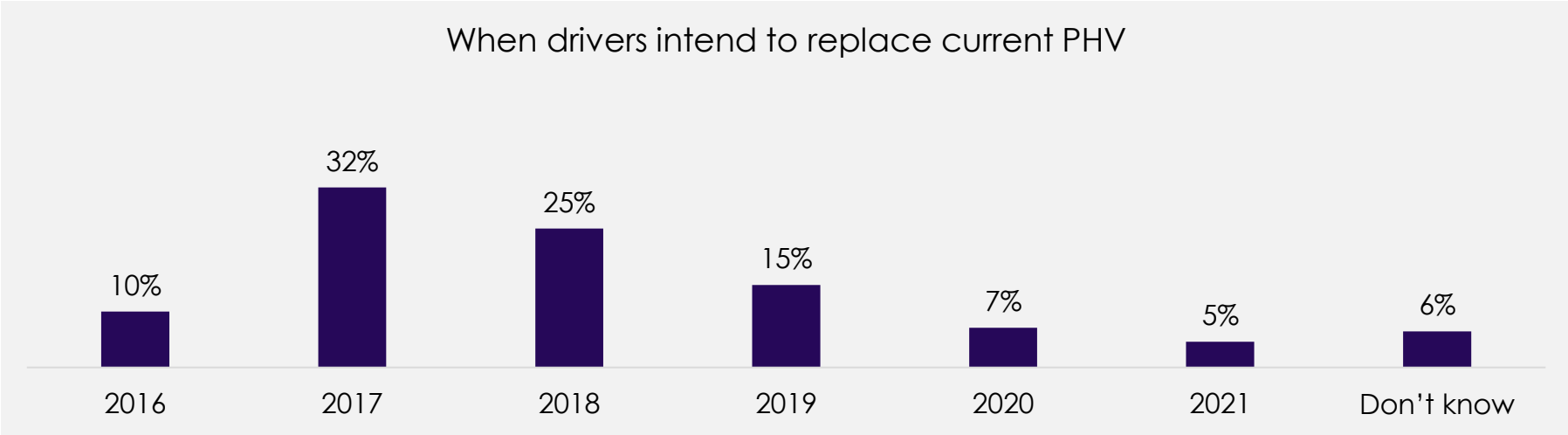
QJ1. How are you allocated your private hire jobs? Base: All respondents (1803), Minicab drivers (1449), Chauffeurs / executive car driver (303), Other (51)

Among drivers owning / part-owning their PHV, over half obtained it within the last three years



QV2a. How old is your current PHV? Base: All who own or part-own their PHV (1198)

The majority of drivers intend to replace their current PHV by 2019



QV2b/QV3b. What year do you intend to replace your current PHV? Base: All respondents (1803)

Regardless of vehicle age, most PHV owners plan to replace their current model before 2020

When drivers plan to replace current PHV

Age of current PHV

(Row %)	2016	2017	2018	2019	2020	2021	Don't know
0 to 1 year	8%	20%	25%	28%	9%	5%	5%
1 to 2 years	3%	33%	42%	10%	6%	4%	3%
2 to 3 years	2%	30%	27%	16%	13%	8%	3%
3 to 4 years	13%	24%	30%	13%	8%	8%	6%
4 to 5 years	5%	36%	27%	10%	10%	4%	8%
5 to 6 years	9%	37%	19%	15%	12%	3%	5%
6 years or older	11%	39%	20%	15%	4%	4%	7%

QV2a. How old is your current PHV? / QV2b. What year do you intend to replace your current PHV? Base: All who own or part-own their PHV (1198)

Similarly, the majority of drivers who rent or lease their vehicle plan to replace it before 2020 – even those who acquired it this year

When drivers plan to replace current PHV

When current PHV was acquired

(Row %)	2016	2017	2018	2019	2020	2021	Don't know
2016	17%	39%	14%	15%	3%	3%	9%
2015	14%	37%	27%	5%	5%	3%	8%
2014	11%	64%	11%	0%	2%	0%	11%
Before 2014	29%	32%	11%	11%	0%	2%	15%

QV3a. What year did you acquire (rent/lease) your current PHV? / QV3b. What year do you intend to replace your current PHV? Base: All who rent or lease their PHV (475)

PHV drivers are most likely to wait between jobs or take breaks on residential streets or near refreshment facilities

	Residential streets	Near refreshment facilities	Supermarkets	Public car parks	Near airports	Shopping centres	Near train / Tube stations	Near operator's office
1-15 mins	40%	35%	31%	29%	13%	24%	29%	13%
16-30 mins	17%	19%	15%	14%	13%	11%	9%	7%
31-45 mins	4%	6%	5%	4%	7%	4%	2%	3%
46-60 mins	2%	3%	3%	3%	8%	2%	1%	2%
More than 60 mins	4%	2%	3%	3%	10%	2%	1%	4%
Ever use	**68%**	**65%**	**58%**	**53%**	**52%**	**44%**	**42%**	**29%**

QJ12. Please use the table below to tell us where you usually wait between jobs or take breaks and how long you typically spend at each location.
Base: All respondents (1803)

On average, PHV drivers travel over 50 miles during a typical working shift

(Row %)	0-5 miles	6-10 miles	11-20 miles	21-30 miles	31-40 miles	41-50 miles	51-60 miles	61-70 miles	71-80 miles	81-90 miles	91-100 miles	100+ miles	Avg. miles	
Commuting (before start of shift)	52%	19%	10%	4%	3%	2%	2%	1%	1%	1%	2%	2%	**15.1**	Minicab – 14.9 Chauffeur – 16.2 Other – 13.9
Working (with or without passengers)	12%	11%	7%	6%	5%	7%	6%	7%	6%	5%	11%	18%	**53.4**	Minicab – 52.6 Chauffeur – **57.3** Other – 51.2
Commuting (after end of shift)	30%	26%	19%	8%	4%	3%	2%	1%	1%	1%	2%	2%	**18.7**	Minicab – 18.5 Chauffeur – 20.1 Other – 13.2
Other (e.g. shopping, social activities)	42%	25%	12%	6%	3%	3%	1%	1%	1%	1%	2%	2%	**16.1**	Minicab – 16.1 Chauffeur – 16.8 Other – 11.8
Total (across each journey type)	0%	5%	4%	8%	5%	4%	5%	5%	6%	5%	6%	47%	**73.9**	Minicab – 73.4 Chauffeur – 76.5 Other – 72.3

QJ5. On a typical working day, how many miles do you drive in your PHV for each of the journey types listed below? Base: All respondents (1803), Minicab drivers (1449), Chauffeurs / executive car drivers (303), Other (51)

A quarter of drivers do not work Sundays

(Row %)	00:00 – 01:59	02:00 – 03:59	04:00 – 05:59	06:00 – 07:59	08:00 – 09:59	10:00 – 11:59	12:00 – 13:59	14:00 – 15:59	16:00 – 17:59	18:00 – 19:59	20:00 – 21:59	22:00 – 23:59	Do not work
Start work													
Monday – Thursday	2%	2%	16%	23%	11%	5%	4%	6%	10%	10%	6%	3%	4%
Friday	2%	2%	14%	19%	9%	4%	4%	8%	12%	13%	6%	3%	2%
Saturday	2%	2%	10%	13%	10%	8%	6%	8%	11%	14%	6%	4%	8%
Sunday	3%	2%	8%	11%	9%	8%	6%	8%	6%	9%	4%	3%	23%
Finish work													
Monday – Thursday	10%	9%	7%	4%	2%	3%	4%	7%	12%	13%	9%	15%	4%
Friday	8%	14%	13%	6%	2%	3%	3%	6%	10%	9%	9%	16%	2%
Saturday	7%	15%	14%	6%	2%	2%	3%	5%	9%	8%	7%	15%	8%
Sunday	8%	8%	6%	4%	2%	2%	3%	4%	8%	10%	9%	11%	23%

QJ3a. Please select the time when you normally first start working, i.e. the time from which you are first available to pick up a passenger.
QJ3b. Please select the time when you normally finish working, i.e. the time from which you are no longer available to pick up passengers.
Base: All respondents (1803)

Borough groupings for slide 11

North	East	South	West	Central
Barnet	Barking & Dagenham	Bromley	Brent	Camden
Enfield	Bexley	Croydon	Ealing	City of London
Haringey	Greenwich	Kingston-upon-Thames	Hammersmith & Fulham	City of Westminster
Waltham Forest	Hackney	Merton	Harrow	Islington
	Havering	Richmond-upon-Thames	Hillingdon	Kensington & Chelsea
	Lewisham	Sutton	Hounslow	Lambeth
	Newham	Wandsworth		Southwark
	Redbridge			
	Tower Hamlets			

Calculating total average daily mileages

We took the midpoints of the average mileage bands (in brackets):

- 0-5 miles (2.5 miles)
- 6-10 miles (8)
- 11-20 miles (15.5)
- 21 – 30 miles (25.5)
- 31 – 40 miles (35.5)
- 41 – 50 miles (45.5)
- 51 – 60 miles (55.5)
- 61 – 70 miles (65.5)
- 71 – 80 miles (75.5)
- 81 – 90 miles (85.5)
- 91 – 100 miles (95.5)
- 100+ miles (100)

Then, we looked at drivers' responses for each of the four journey types and took the sum of these four averages.

So, if someone said they drove 0-5 miles per day for each journey type, they would have been assigned 2.5 miles for each journey type and therefore that driver's total daily average mileage would be:

- 2.5 + 2.5 + 2.5 + 2.5 = 10 miles

Commuting (before shift)	Working	Commuting (after shift)	Other	Sum of averages
2.5	2.5	2.5	2.5	10

These sums of the averages were then put back into the existing mileage bands, then the overall average was worked out again for all 1803 respondents giving us:

Sum of average mileage across 4 journey types (midpoint)	Count	Count x midpoint
0 – 5 miles (2.5)	0	0
6 – 10 miles (8)	96	768
11 – 20 miles (15.5)	73	1131.5
21 – 30 miles (25.5)	149	3799.5
31 – 40 miles (35.5)	82	2911
41 – 50 miles (45.5)	75	3412.5
51 – 60 miles (55.5)	91	5050.5
61 – 70 miles (65.5)	85	5567.5
71 – 80 miles (75.5)	113	8531.5
81 – 90 miles (85.5)	99	8464.5
91 – 100 miles (95.5)	100	9550
100+ miles (100)	840	84000
Sum of count x midpoint		133186.5
Total average		**133186.5 / 1803 = 73.9**

Main Contacts

Euan Williamson, Research Manager
Euan.Williamson@futurethinking.com

Steph Shaarwi, Divisional Head
Stephanie.Shaarwi@futurethinking.com

+44(0) 207 843 9777

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