

The results are in: EV Chargepoint Experience Survey

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Lowering your emissions through innovation in transport and energy infrastructure



HERE TO ASSESS, EVALUATE, IMPLEMENT AND DELIVER YOUR LOW EMISSION VEHICLE AND ASSOCIATED INFRASTRUCTURE STRATEGIES

Consultancy Support

Research & Development



Introduction & Methodology



Project GECO

GECO: Geospatial EV Charging Optimisation

- Comms 365 and Genex are collaborating on an SBRI funded project
- The aim of GECO is to optimise the public EV charging experience by uniting different data streams
- The public survey was done to understand the problems from the drivers' perspective
- The survey gathered quantitative and qualitative responses



UK Research
and Innovation

Survey Design

PAID SURVEY SETUP

- General population of the United Kingdom (UK)
- People's household income above £16,999
- 49.67% Male and 50.33% Female
- Ages from 18-75 with the following split:
 - < 18: 0.00%
 - 18-29: 24.33%
 - 30-44: 24.67%
 - 45-60: 26.00%
 - > 60: 25.00%



829

Total number of
respondents

306

Paid Responses
(Survey Monkey)

523

Organic
Responses

Survey Respondents



829

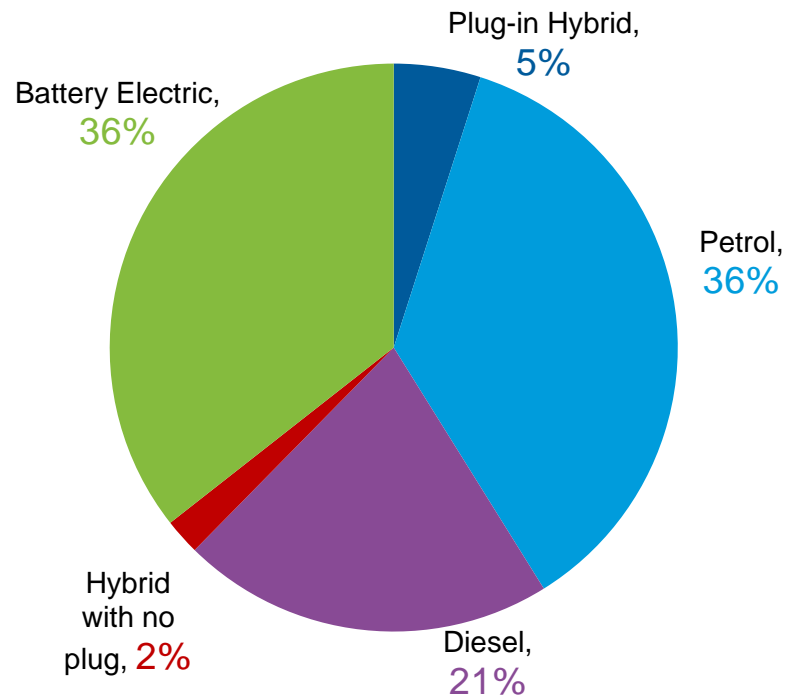
Total number
of respondents

493

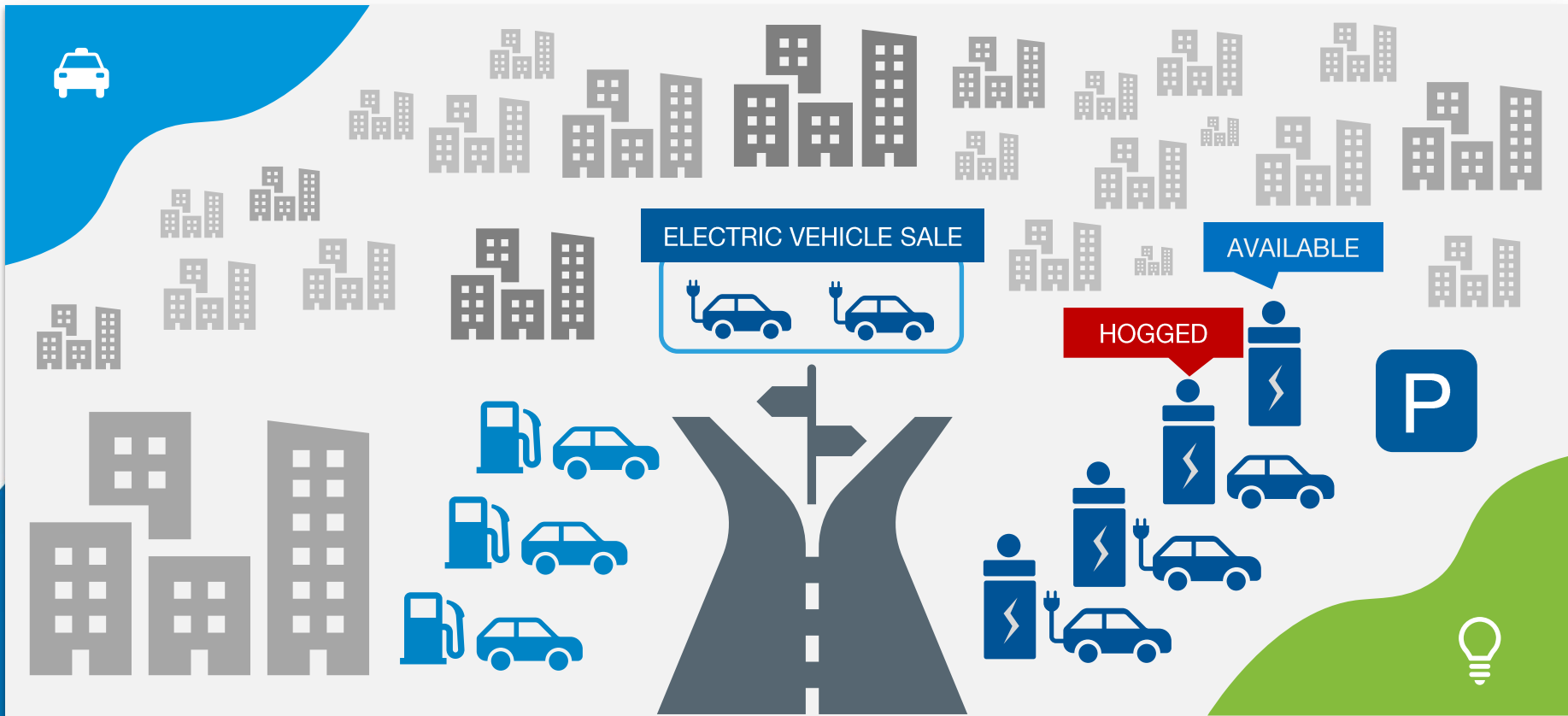
Non-EV Drivers

336

EV Drivers



Non-EV Drivers

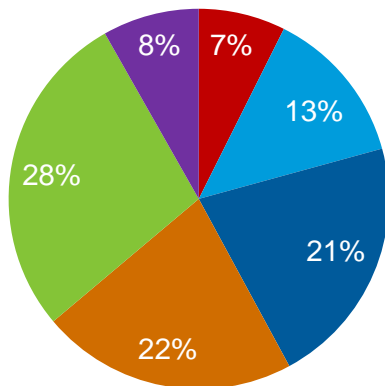


Non-EV driver intentions & priorities

63%

of non-EV drivers are considering buying an EV in the next 5 years.

- Within a year
- 1-2 years
- 2-3 years
- 3-5 years
- More than 5 years



23%

of non-EV drivers **don't want their refuelling experience to change when switching to an EV.**

PRIORITIES

1. Able to charge their vehicle at or near their home.
2. Widely available public chargers.
3. A live application showing public charger availability.

Non EV Drivers' Top Concerns: Which statement is most true?

I would like to buy...

A) ...an EV, but they are **too expensive**



36%

B) ...an EV, but I will not purchase it **until there are more places to charge it**



33%

C) ...a less polluting car, **but I don't understand enough about EVs to feel comfortable about buying one**



10%

D) ...an EV, but **nothing on the market meets my needs**



6%

8%

chose the free-text option, "I would like to buy an EV, but..."

The top 2 statements were:

1. I do not need to replace my vehicle yet.
2. I cannot charge at home.

People reinforced statements A) and B) on the left in the free-text:

3. There are not enough public chargers.
4. They are too expensive.

EV Drivers



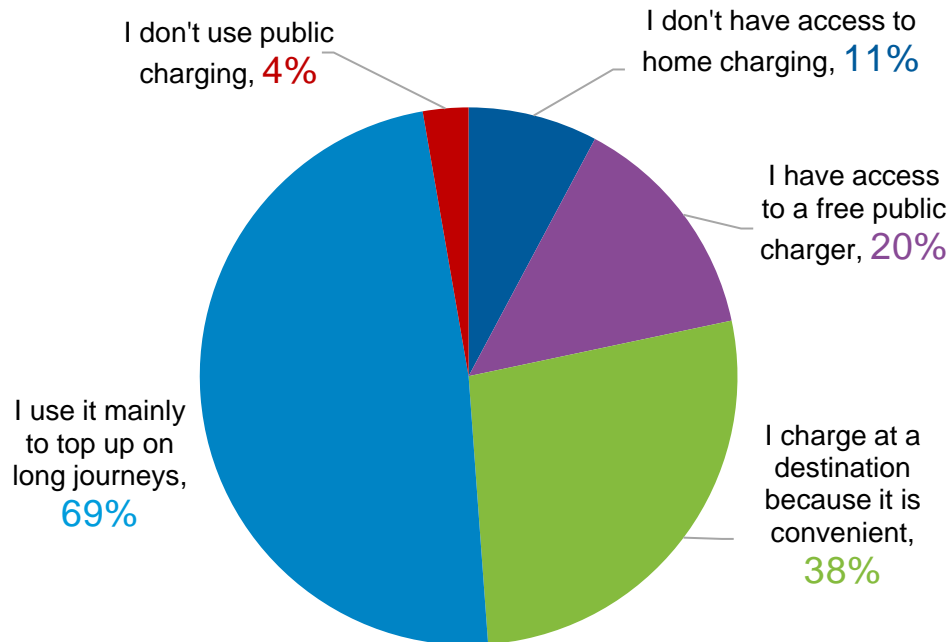
Public Charging Behaviour of EV Drivers

16%

of EV drivers do **more than 50%** of their vehicle charging at public chargepoints.

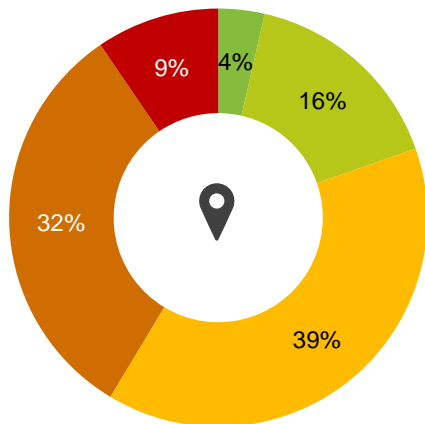
69%

of EV drivers spend **more than 30 minutes** at a public chargepoint per charge.

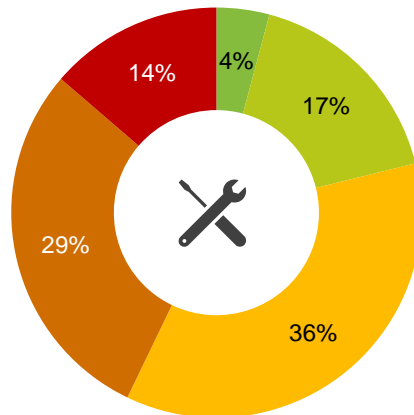


EV Drivers' Public Chargepoint Experience

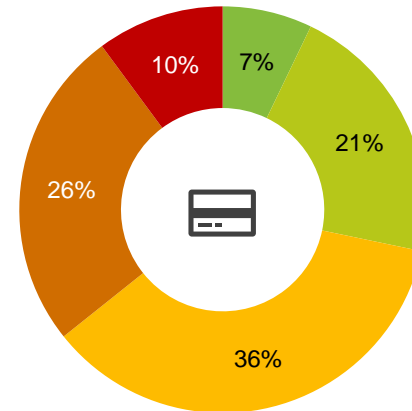
Experience of finding chargepoints where they want to go.



Experience of chargepoints working reliably.



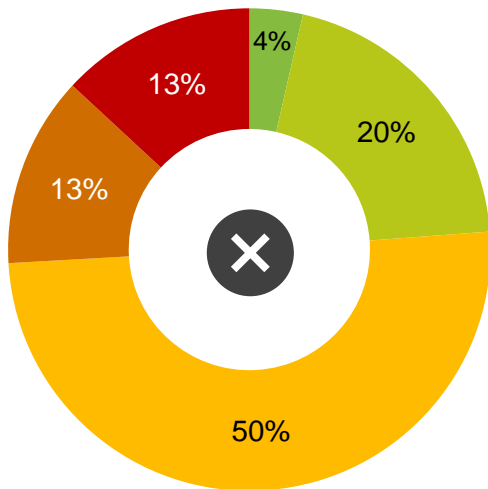
Experience of payment at chargepoints.



■ Excellent
 ■ Good
 ■ Satisfactory
 ■ Bad
 ■ Very Bad

Availability: How often do you find that public chargepoints are...

...already in use when you arrive?



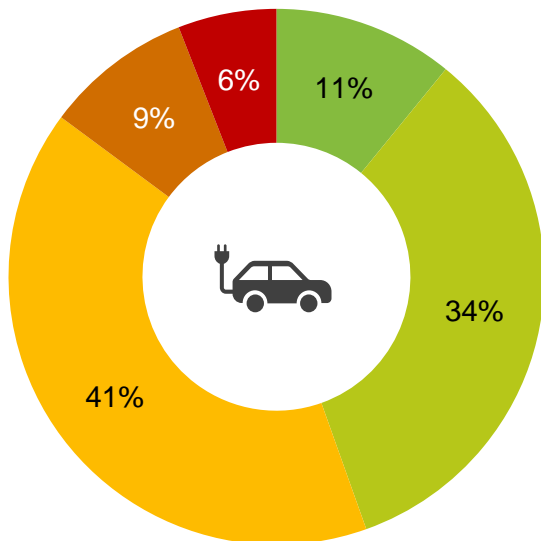
■ Never ■ Rarely ■ Sometimes ■ Often ■ Regularly

70%

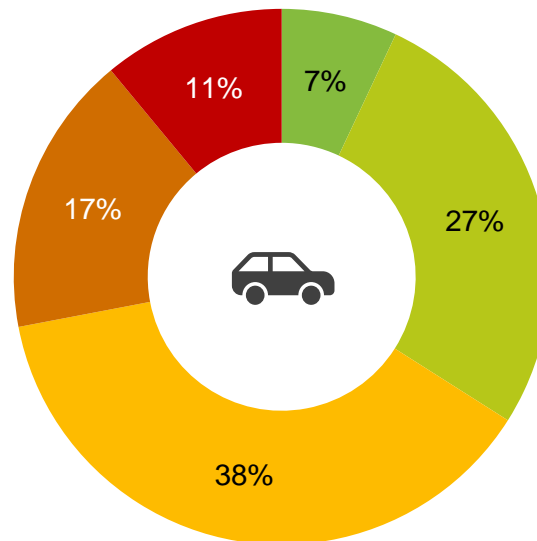
of EV drivers find that chargepoints are **sometimes or rarely** in use when they arrive.

Bay Hogging: How often EV drivers find that public charging bays are...

Occupied by EVs which are not charging



Occupied by non-EVs



Never

Rarely

Sometimes

Often

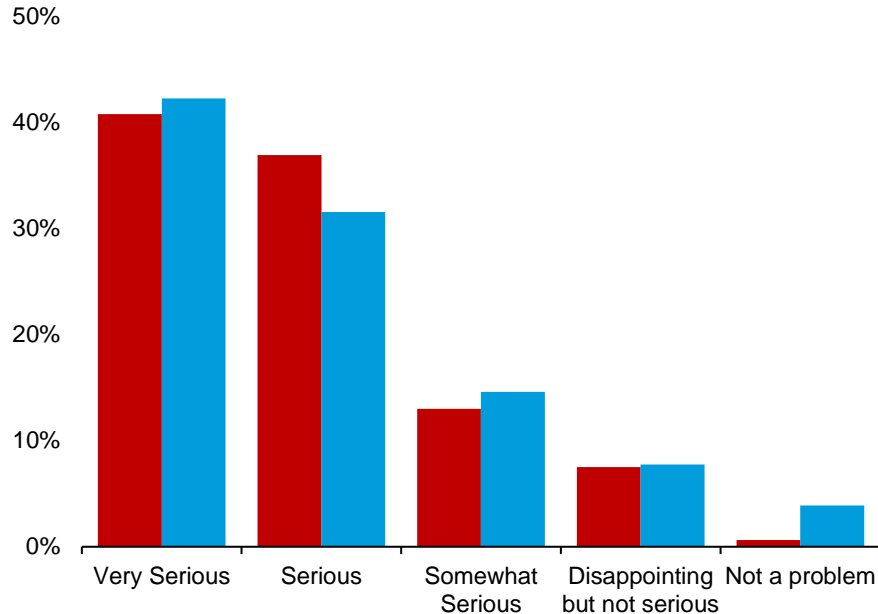
Regularly

All Drivers



Bay Hogging by non-EVs

How do you rate the problem of public chargepoint bays being occupied by non-electric vehicles?



78%

of **non-EV drivers** think charging bays being occupied by non-EVs is a **serious or very serious** issue.

73%

of **EV drivers** think charging bays being occupied by non-EVs is a **serious or very serious** issue.

Bay Hogging by EVs which are not charging

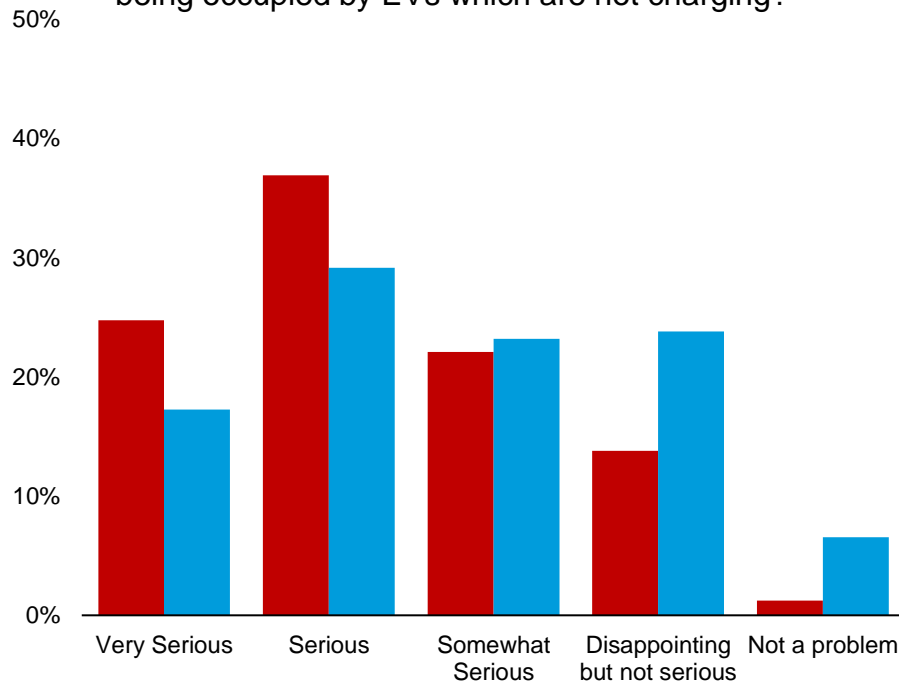
62%

of **non-EV drivers** think charging bays being occupied by EVs which are not charging is a **serious or very serious** issue.

46%

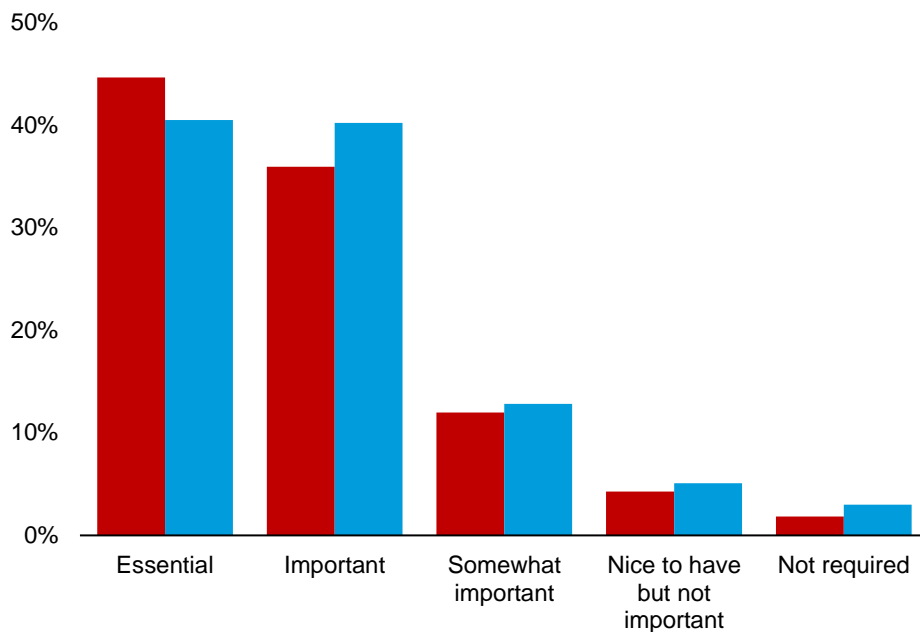
of **EV drivers** think charging bays being occupied by EVs which are not charging is a **serious or very serious** issue.

How do you rate the problem of chargepoint bays being occupied by EVs which are not charging?



Chargepoint Availability

How important is it to be able to know if a chargepoint is available or not in advance?



81%

of **non-EV drivers** find it **important or essential** to know if a chargepoint is available in advance.

81%

of **EV drivers** find it **important or essential** to know if a chargepoint is available in advance.

Booking chargepoints in advance

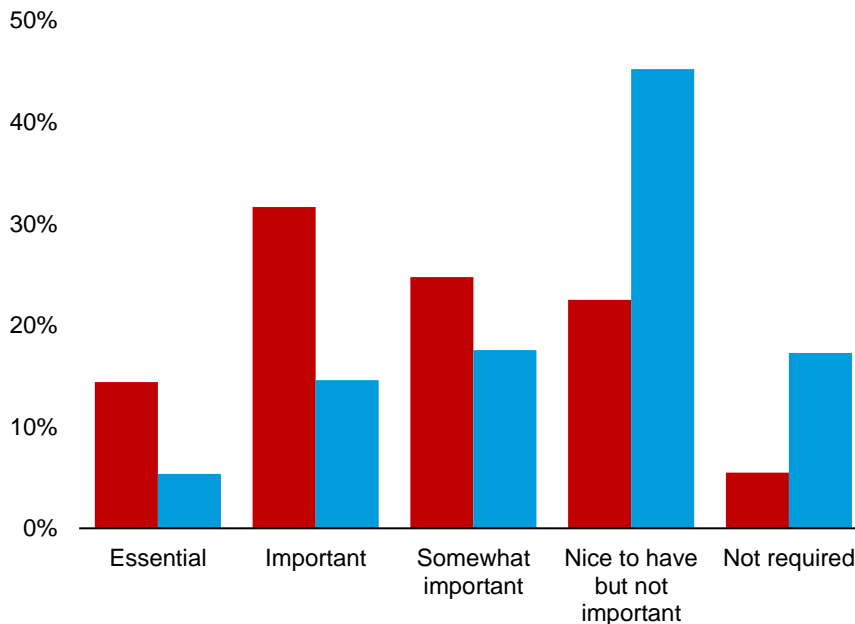
46%

of **non-EV drivers** say that booking a chargepoint in advance is **essential or important**.

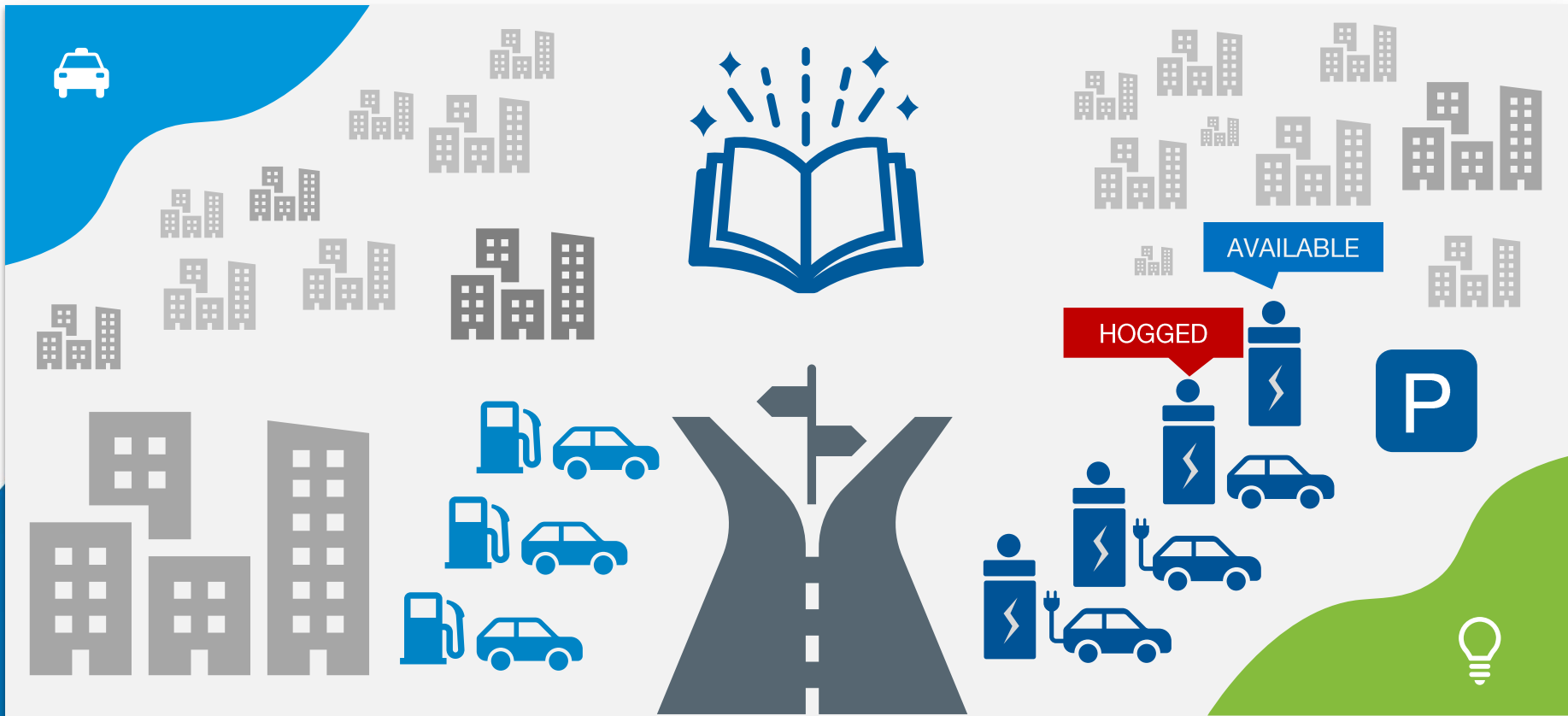
21%

of **EV drivers** say that booking a chargepoint in advance is **essential or important**.

How important is it to be able to book chargepoints in advance?



Top User Stories



Top 6 User Stories: As a current/future EV driver I want to...



know the **availability of public chargepoints** in advance/real-time so I do not have to wait for another vehicle to finish charging.



see **better parking enforcement** around public charging bays so that I make fewer wasted journeys to charging bays which are hogged.



be able to **pre-book public chargepoints** so that I can guarantee that I can access a chargepoint.



be able to easily **incorporate chargepoints into route planning** so that I can be more confident making longer journeys.



know in advance whether a chargepoint is faulty or out of use so I can make fewer wasted journeys to chargepoints that do not work.



be able to **easily access and pay for all public charging in the same way** (i.e. not requiring multiple apps/cards, having a standard payment method).



The results are in: EV Chargepoint Experience Survey



FUTURE EV DRIVERS' PRIORITIES

1. Able to charge vehicle at / near home
2. Widely available public charging
3. Live application showing public charger availability
4. Bookable / reserving public chargers
5. Information about chargepoints



ONLY **16%** OF EV DRIVERS DO THE MAJORITY OF THEIR CHARGING AT PUBLIC CHARGEPOINTS

68% OF EV DRIVERS MAINLY USE PUBLIC CHARGING FOR TOPPING UP ON LONG JOURNEYS

OVER **80%** OF THOSE SURVEYED BELIEVE IT TO BE ESSENTIAL / IMPORTANT TO KNOW IF A CHARGEPOINT IS AVAILABLE IN ADVANCE...

63% OF NON-EV DRIVERS ARE CONSIDERING BUYING AN EV IN THE NEXT 5 YEARS

33% OF NON-EV DRIVERS WOULD LIKE TO MAKE THE SWITCH TO ELECTRIC WHEN MORE CHARGEPOINTS ARE AVAILABLE

23% OF NON-EV DRIVERS DON'T WANT THEIR DRIVING AND REFUELLING EXPERIENCE TO CHANGE WHEN SWITCHING TO AN ELECTRIC VEHICLE

73% OF EV DRIVERS FIND BAY HOGGING BY A NON-EV VEHICLE A SERIOUS OR VERY SERIOUS ISSUE

69% SPEND MORE THAN 30 MINUTES AT A PUBLIC CHARGEPOINT PER CHARGE

...AND **89%** WOULD LIKE TO BOOK CHARGEPOINTS IN ADVANCE...

BUT ONLY **11%** DEEMED IT ESSENTIAL



829 UK RESPONDENTS
PLUG-IN EV DRIVERS: 336
NON-EV DRIVERS: 493

PEOPLE WANT



CHARGEPOINT AVAILABILITY INFORMATION



BETTER ROUTE PLANNING FOR EV CHARGING



BETTER ENFORCEMENT OF EV BAYS



INFORMATION ABOUT FAULTY CHARGEPOINTS



ABILITY TO PRE BOOK CHARGEPOINTS



STANDARD PAYMENT METHOD FOR EV CHARGING

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