



Department  
for Transport

# Public engagement on Electric Vehicles

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- The climate change and transport choices segmentation study
- Public engagement on EVs
  - Who?
  - What?
  - How?
- Priority areas for research
- Q & A



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# INTRODUCTION



- The movement of goods and people and, increasingly, information



- Transportation systems are the backbone of social and economic development and are a determinant of the quality of urban life

## Issues

## Context

## Solutions



Carbon



Rising  
wealth



Technology



Capacity



urbanisation



Policy



Demand



Ageing  
population



Society

- Team aims to increase the use of behavioural evidence by DfT, key work includes:
  - Research on the role of the Plug-in Car Grant and Plugged-in Places scheme in Electric Vehicle uptake
  - The DfT Behavioural Insights Action Plan
  - Developing resources on behaviour change:
    - Behavioural Insights Toolkit
    - Segmentation study

# The challenges of public engagement – understanding attitudes

- The attitude-behaviour gap
- Cognitive polyphasia – we may have more than one view on a subject depending on which ‘hat’ we’re wearing
- One size fits all approach doesn’t work
- You can engage with the public on any subject – you just need the right methods
- Deliberative research is key



# Cognitive polyphasia

As someone who  
is concerned  
about climate  
change, I think...

As a motorist, I  
think...

As a dad who  
has to get my  
kids to school  
safely, I think...

As someone  
who loves my  
holiday in the  
sun, I think...



# CLIMATE CHANGE AND TRANSPORT CHOICES SEGMENTATION STUDY



Segmentation is the process of splitting a population into smaller groups to make it easier to understand, and interact with

- This study produced a segmentation of the **national population**, based on their **attitudes to climate change**, and their **transport behaviour**
- A face-to-face survey with just under 4,000 adults
- Qualitative research to refine the segments and understand the barriers and motivations to using different types of transport



# The segments



# Car-owning segments – two examples

## Segment 1: Older, less mobile car owners



- Typically older, largely retired
- All have mobility difficulties
- Mobility difficulties largely determine / shape transport behaviour
- Mobility issues prevent walking, cycling and using public transport
- Heavily reliant on their cars to get around
- Tend to travel less than other car owning segments
- Sceptical about climate change

## Segment 2: Less affluent urban young families



- Young (mostly under 40)
- Some young families, some young people still living with parents
- Relatively low incomes, less well educated, living in urban areas
- Typically one older, smaller car per household
- Latent desire to own a larger, faster car, but constrained by income
- Travel / drive less than more affluent groups
- More likely than other car-owning segments to use non-car modes
- Ambivalent about climate change

# PUBLIC ENGAGEMENT ON ELECTRIC VEHICLES

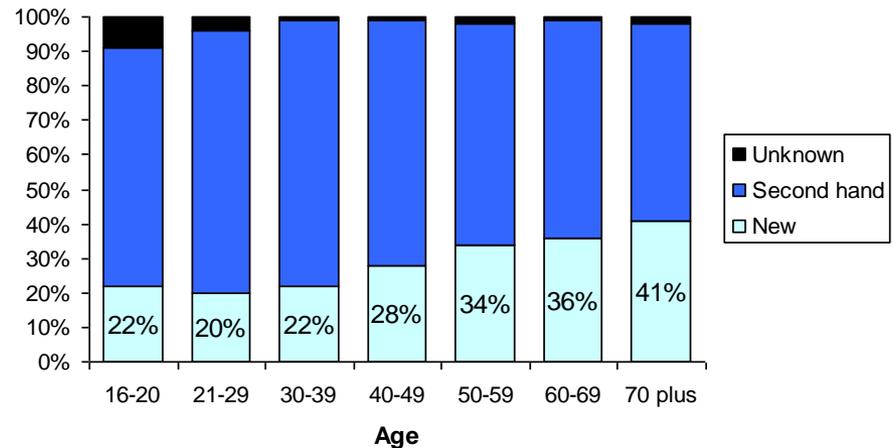
Who?



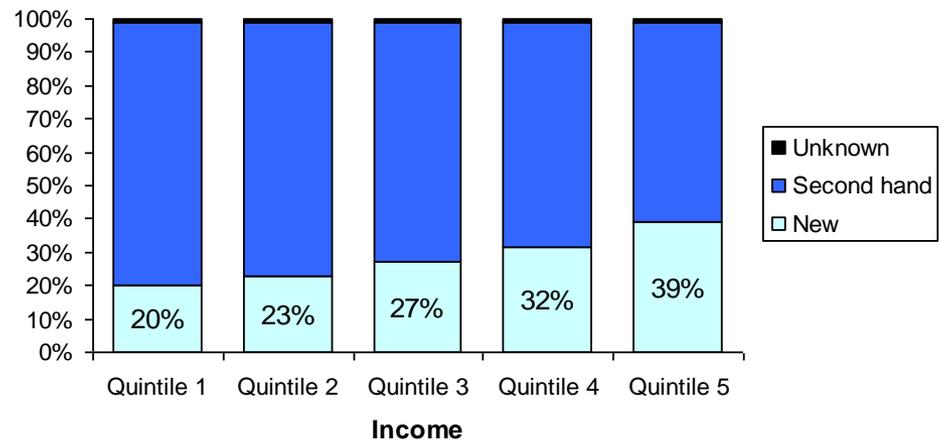
# PE on EVs needs to focus primarily on those who purchase new cars

- The vast majority of EV purchasers currently buy new EVs. To stimulate the EV market, public engagement should focus on new car purchasers.
- New car purchasers are generally **older** and from **high income** groups.

How main car was purchased, by age



How main car was purchased, by income





# EV owners are likely to come from three segments

## Car owning segments (at least one vehicle in household)



**1 Older, less mobile car owners** (9% of population)

- Older, all have mobility difficulties
- Transport behaviour shaped by lack of mobility
- Travel less than all other car owning segments
- Heavily reliant on the car to get around

% of new car owners

13%



**2 Less affluent urban young families** (21% of population)

- Lower travel needs, desire to own larger/faster car but behaviour constrained by relatively low income
- Relatively less reliant on the car than other car owning groups
- Less well educated, more ambivalent about climate change

7%



**3 Less affluent older sceptics** (12% of population)

- Older, very few have mobility difficulties; less affluent.
- Lower travel needs, related to lower incomes and life-stage
- Low level of education, more sceptical about climate change

12%



**4 Affluent empty nesters** (9% of population)

- Older, largely retired, affluent, well educated
- Average levels of car travel; drive less than younger affluent segments
- Mostly likely segment to buy cars brand new
- Pro-environmental but more sceptical about climate change specifically

24%



**5 Educated suburban families** (17% of population)

- Working age, higher income, well educated, many have children
- Travel and drive a lot; most likely segment to travel by plane
- Positive about cycling, but distances and safety are barriers
- Concerned about climate change but have high travel needs

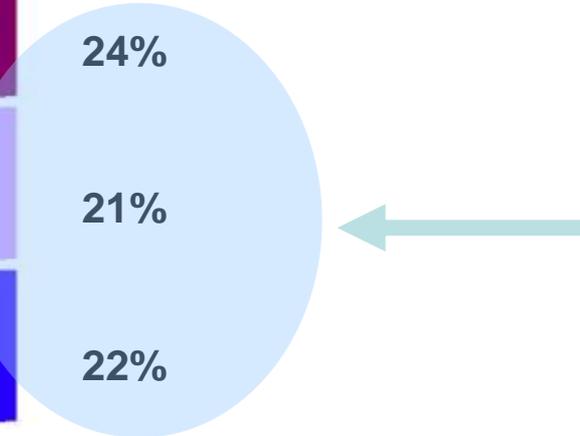
21%



**6 Town and rural heavy car use** (13% of population)

- Working age, higher income but less well educated
- Most 'rural' segment, but also living in urban areas
- Highest levels of car ownership and car travel; own largest cars
- Speed/performance and style/design important in car buying

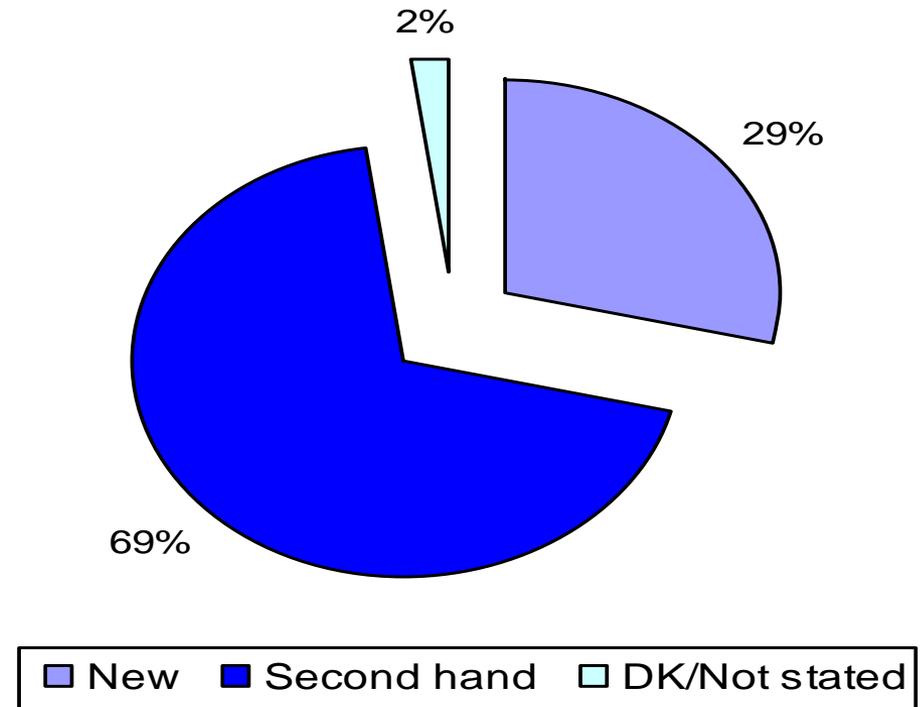
22%



## ...but second hand purchasers are also important

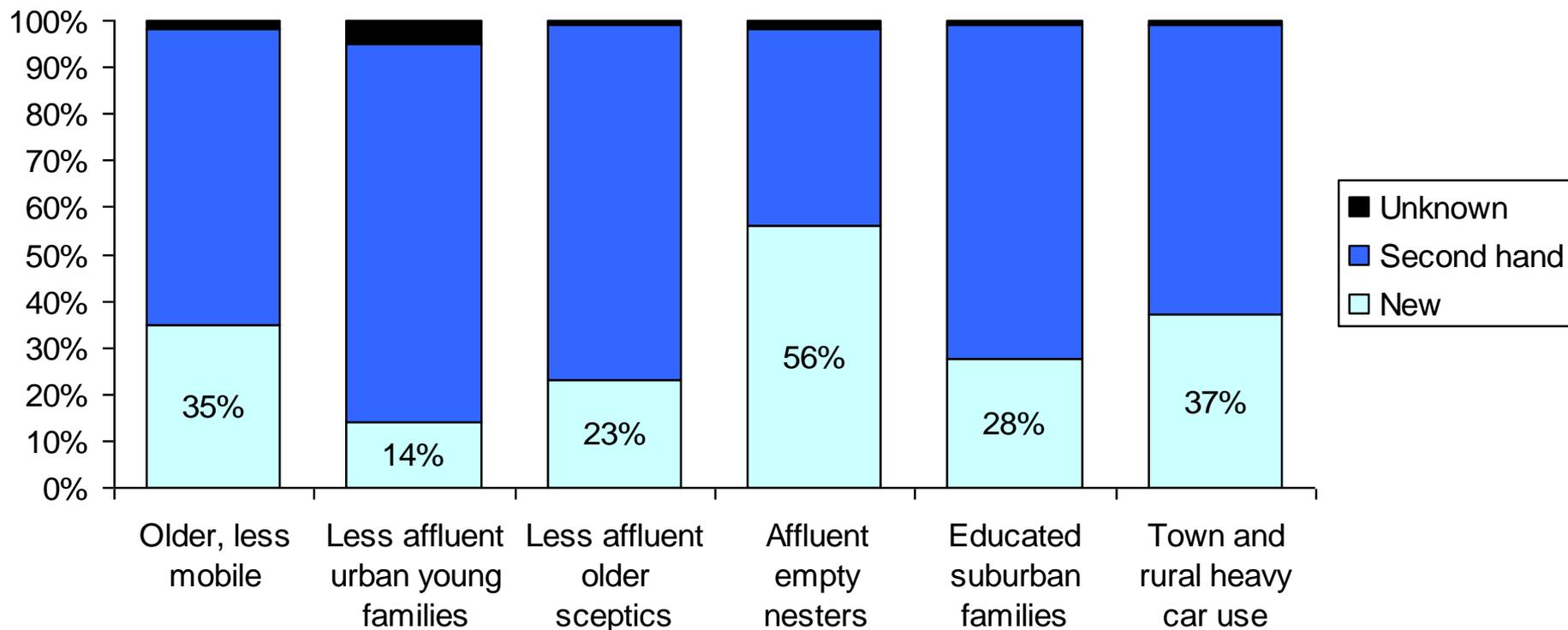
- Most car purchases are second hand
- To support the EV market in moving from 'early adopters' to 'mass market' uptake, public engagement will need to focus on segments of the population that are likely to buy EVs second hand

How people's main car was purchased



# New and second hand car purchasers vary by segment

How main car was purchased, by car-owning segments



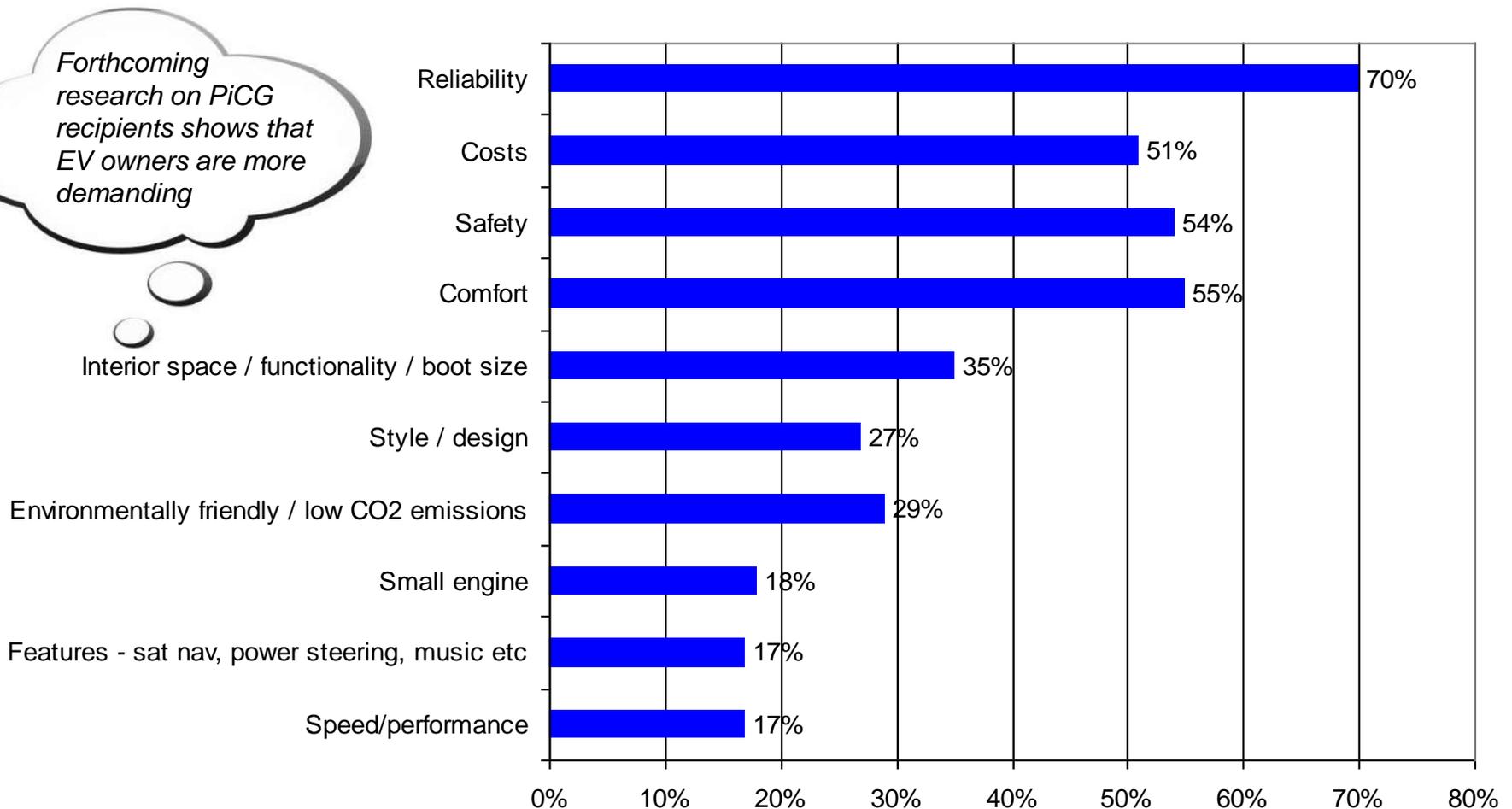
# PUBLIC ENGAGEMENT ON ELECTRIC VEHICLES

What?



# Consider what's important to new car purchasers: reliability, costs, safety and comfort

Factors which new car buyers consider important in choice of car

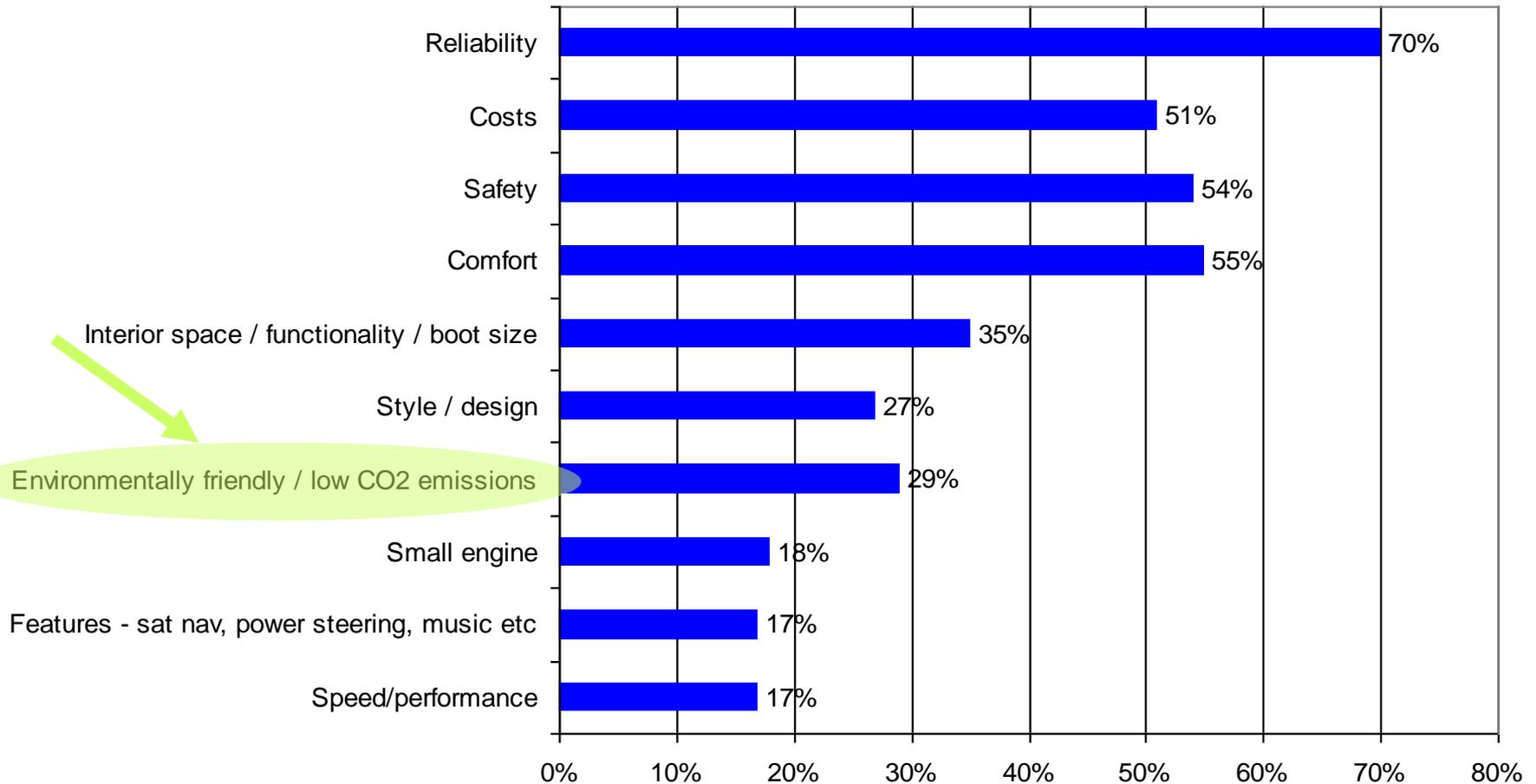


*Forthcoming research on PiCG recipients shows that EV owners are more demanding*

Interior space / functionality / boot size

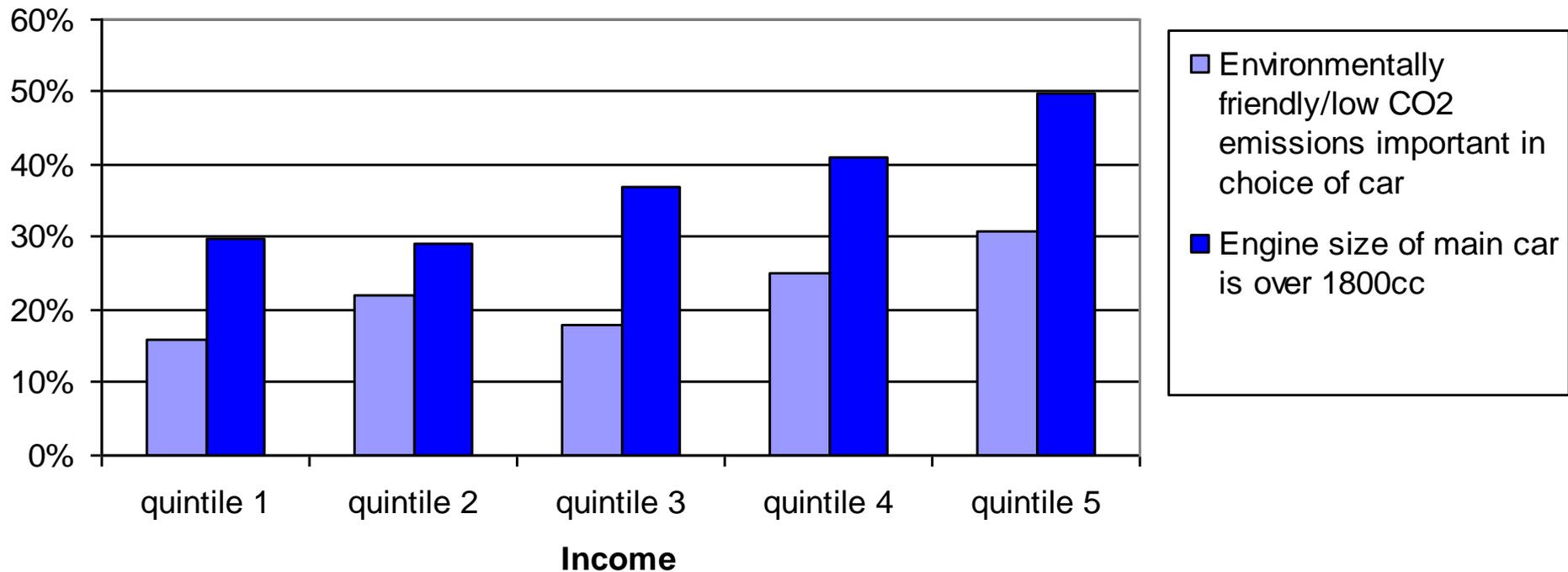
# Remember environmental concerns are important to a substantial minority...

Factors which new car buyers consider important in choice of car

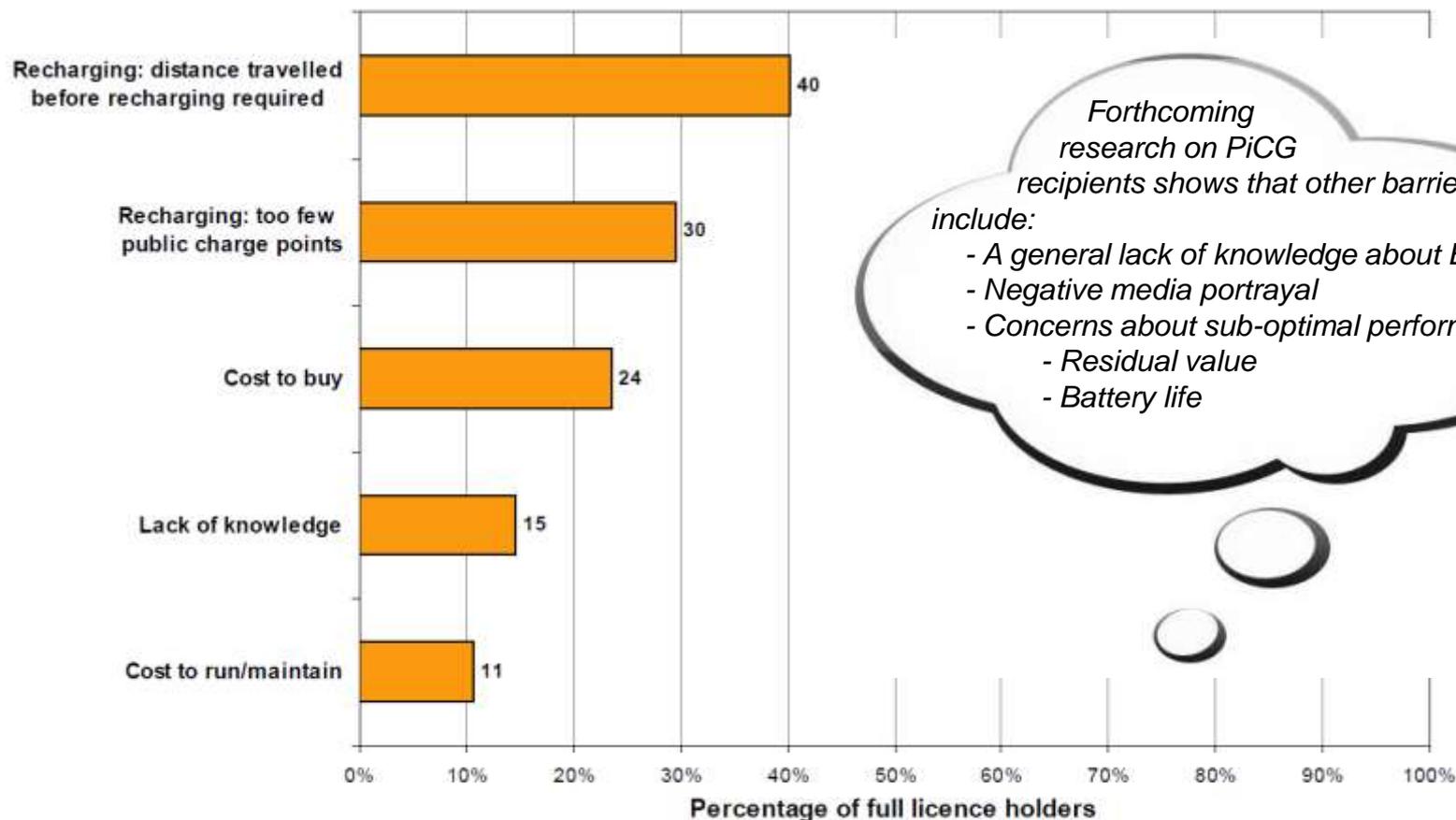


# ...but stated environmental concerns aren't always reflected in purchasing behaviour

**Stated importance of environmental concerns in choice of car and engine size of main car, by income**



# Remember the **barriers**: recharging, initial cost, lack of knowledge, running/ maintenance costs



Source: Opinions Survey August 2011.

This is based on full licence holders who had heard of electric cars prior to being surveyed (99% of full licence holders).

Respondents could choose more than one response and were not prompted with a list of possible responses.

Base numbers: 796.

...some buyers perceive a trade-off between lower emissions and other factors, particularly those in higher income groups

### Barriers to buying a car with lower CO2 emissions and/or a smaller engine

	All	Income quintile				
		1	2	3	4	5
They are too small	26%	17%	27%	26%	32%	29%
They are not powerful enough	24%	16%	15%	18%	31%	43%
They are more expensive	17%	30%	20%	24%	18%	8%
They are too slow	8%	4%	4%	11%	8%	14%

# ...Running costs are a greater motivation for buying a low emission car than environmental concerns, for most income groups

## Motivations for buying a car with lower CO2 emissions and/or a smaller engine

	All	Income quintile				
		1	2	3	4	5
Because they are cheaper to run	55%	55%	52%	62%	66%	51%
I care about the environment	43%	34%	44%	42%	47%	55%
To reduce my CO2 emissions	37%	36%	35%	34%	30%	36%
Lower tax band	20%	16%	15%	25%	21%	23%
Because they are cheaper to buy	13%	13%	13%	12%	12%	12%

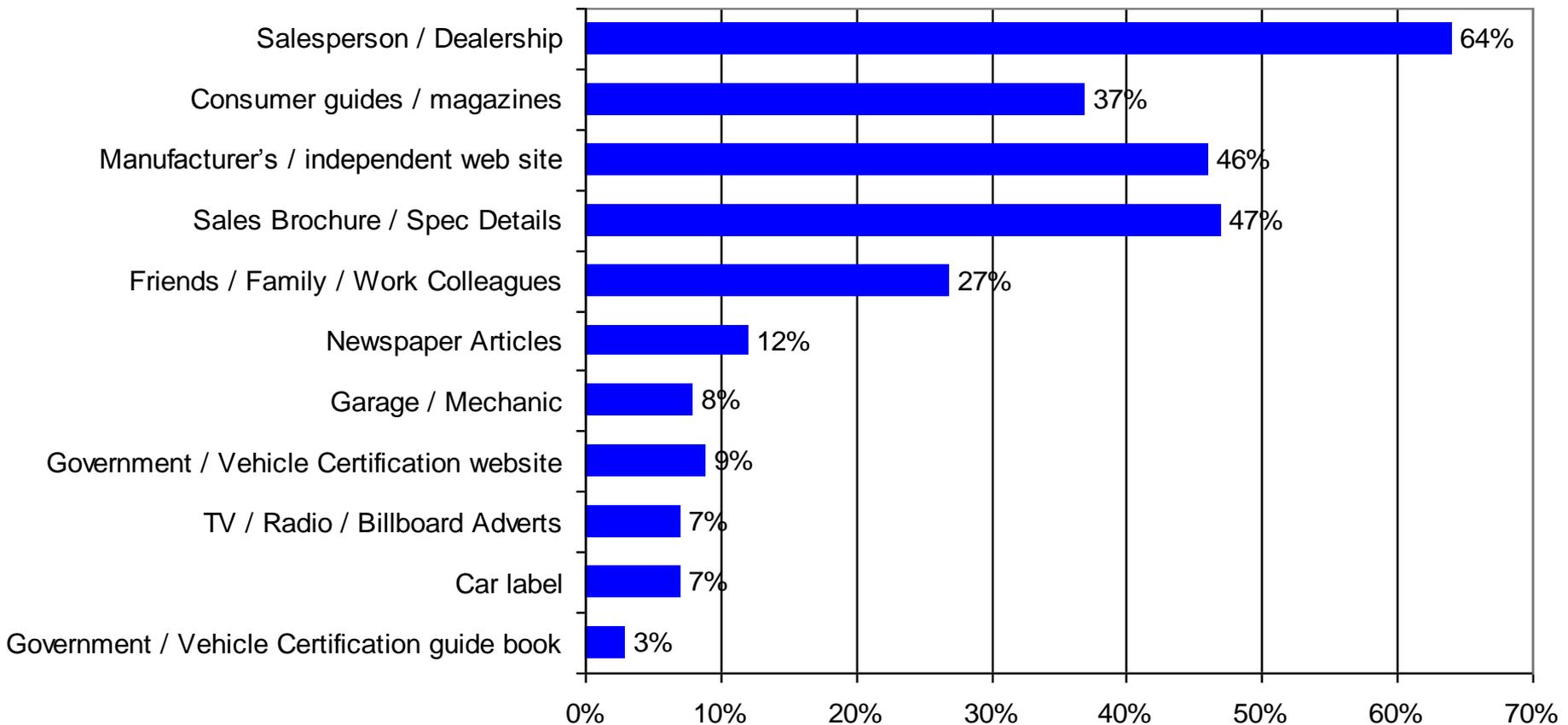
# PUBLIC ENGAGEMENT ON ELECTRIC VEHICLES

## How?



# How to engage: private buyers use a variety of information during the decision-making process

## Sources of information used by new car buyers



# PRIORITIES FOR FUTURE RESEARCH



- The relative influence of different information sources on EV purchasing
  - Tackling negative media coverage
  - Information needs of priority groups (e.g. ‘affluent empty nesters’)
  - Touch points – when do people access the information?
- The future second hand EV market: timing, consumer confidence, barriers and incentives
- EV driving and charging behaviours

- Forthcoming OLEV / DfT research on the PiCG and PiPs scheme will fill significant gaps in our knowledge of EV users – publication likely in July
- Business segmentation – an evidence base review has commenced to assess the possibility of segmenting the business population - publication towards the end of the year



## Links to key resources

Attitudes to Climate Change omnibus:

<https://www.gov.uk/government/publications/public-attitudes-to-climate-change-and-the-impact-of-transport-in-2011>

The Climate Change and Transport Choices Segmentation Study:

<https://www.gov.uk/government/publications/climate-change-and-transport-choices-segmentation-study-final-report>

Behavioural Insights Toolkit:

<https://www.gov.uk/government/publications/behavioural-insights-toolkit>



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# Any questions?

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