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# Growing the UK ULEV market

## Understanding people's motivations and barriers





## Policy challenge

Our aim is for **almost every car and van to be a zero emission vehicle by 2050** ... and we will invest £500m over the next five years to achieve it.

Conservative party manifesto





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# Highlights from the OLEV programme of market support



Office for  
Low Emission  
Vehicles

Plug-in Car Grant

Go Ultra Low comms  
campaign

Chargepoint infrastructure

Go Ultra Low City Scheme

R&D



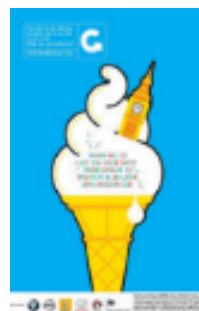
Incentives



Energy Issues



Comms



Infrastructure



Supply Chain





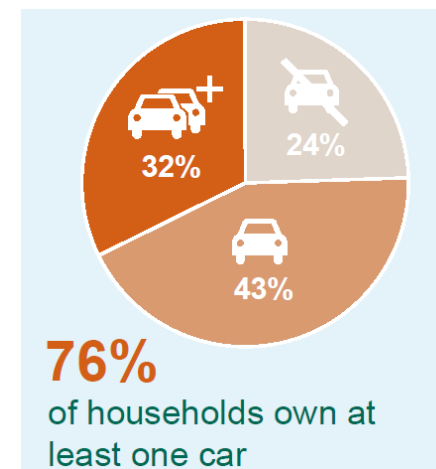
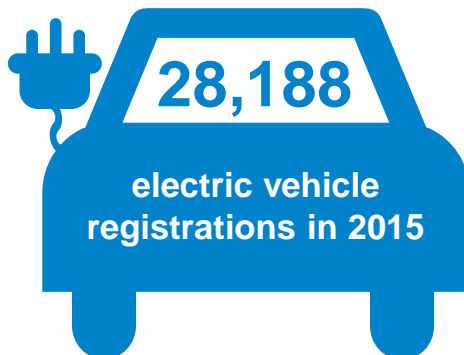
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## UK car market

2.6 million new car  
registrations in 2015



1.3 million of these  
were for fleets



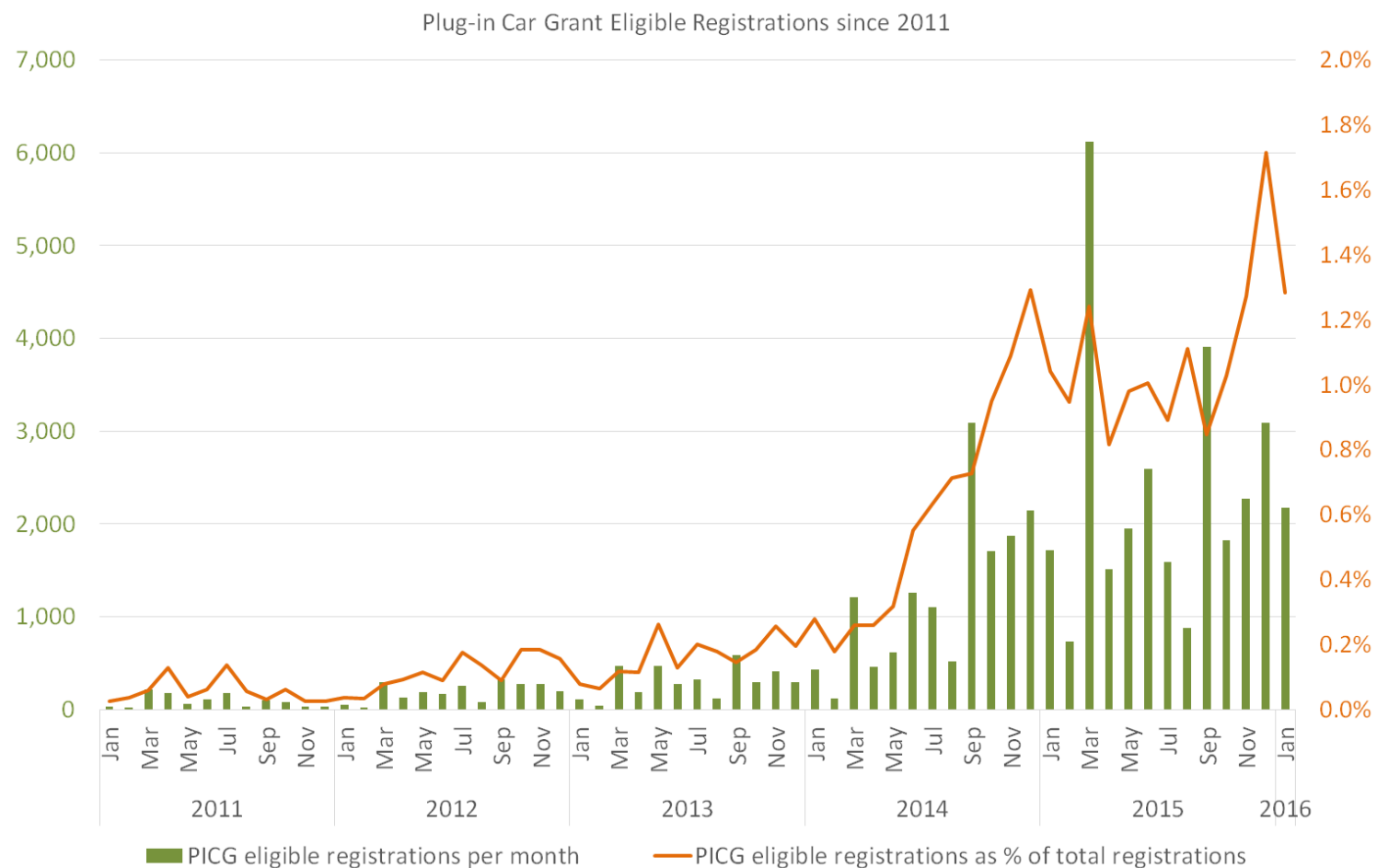
- ▶ **59%** park overnight on private property but not garaged
- ▶ **25%** park on the street overnight
- ▶ **14%** park in a garage

- ▶ **94%** under 25 miles
- ▶ **96%** under 50 miles
- ▶ **99%** under 100 miles





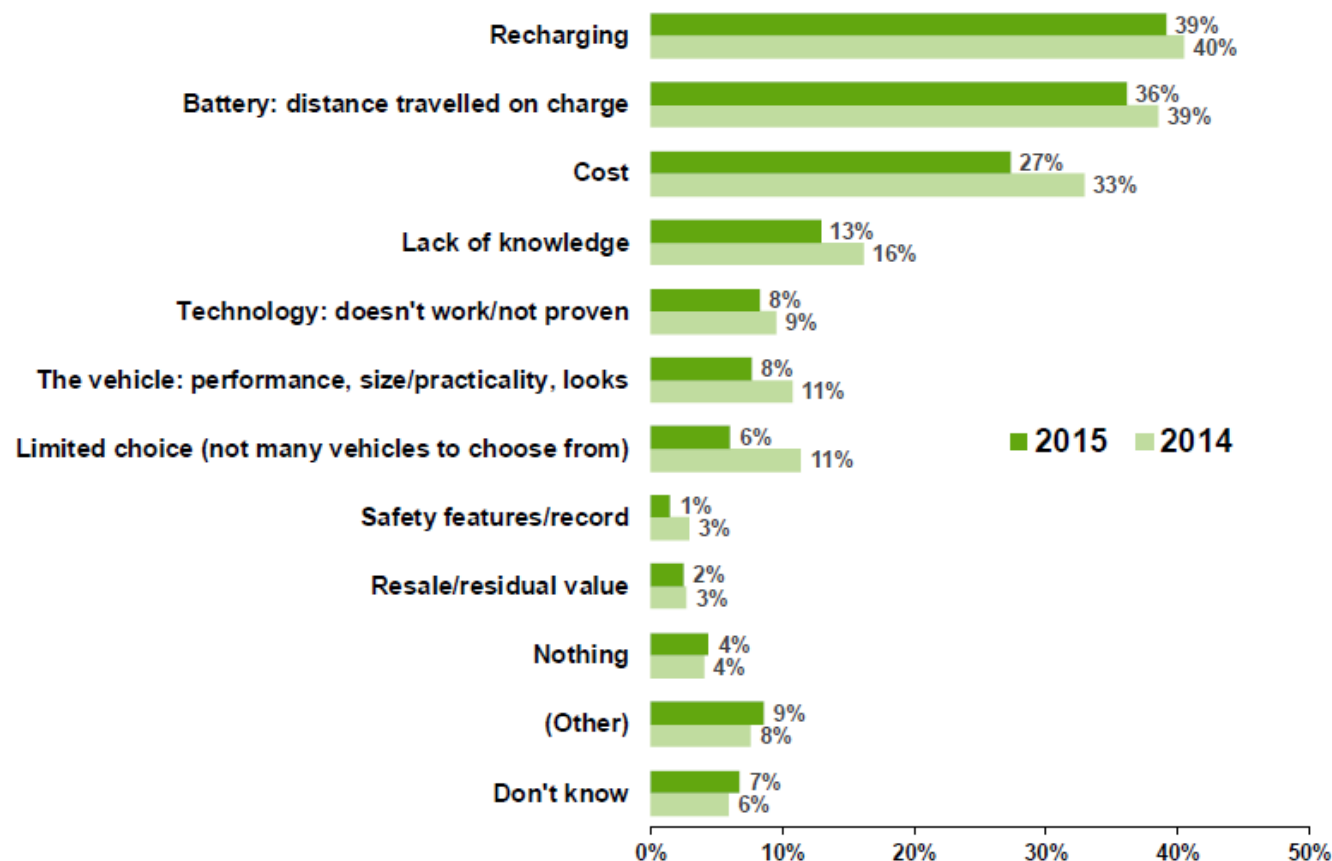
# Progress





# What are the key barriers to ownership?

Factors deterring people from buying an electric car or van, driving licence holders, 2014 and 2015 results



Sources: ONS Omnibus Survey February 2014 & 2015. Unweighted base: 664 and 735 respectively (full licence holders only) Up to 3 responses coded from each respondent hence total will add up to more than 100%.





For people to change their behaviour, the new behaviour needs to seem to them to be...

- more advantageous
- more 'me'
- more prevalent
- more doable



► Or the old behaviour needs to seem to be less of any of the above



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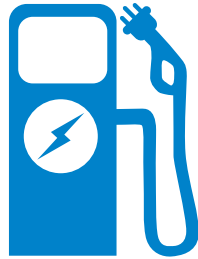
# Range anxiety and cost barriers







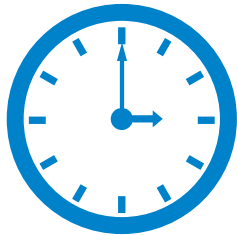
## Range anxiety: the challenge – people's perceptions...



There are **not enough chargepoints**

69%

56%



Takes **too long to charge**

43%

44%



**Can't go very far / far enough** without recharging

68%

63%

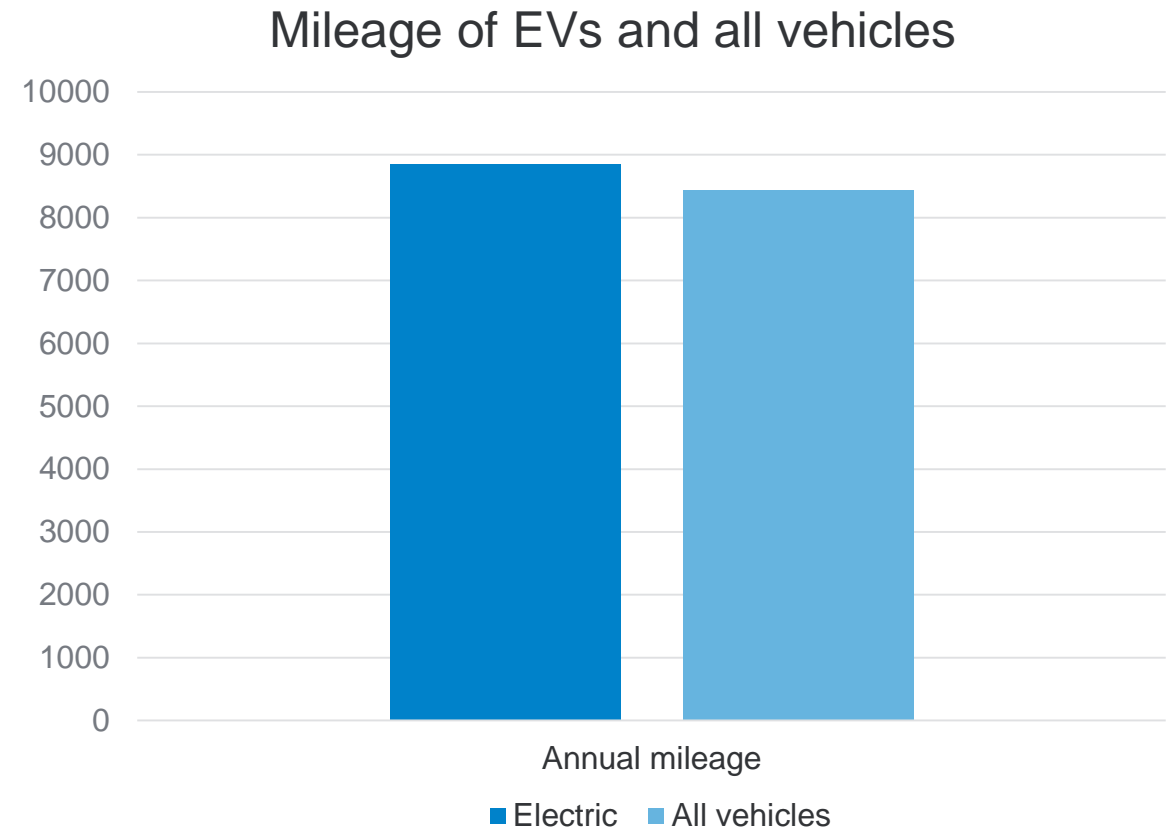
Q1 2014

Q3 2015



## Range anxiety: the good news

- ▶ ULEVs are the **main car in 9 in 10** households
- ▶ While range remains a key issue for owners, there are **high levels of satisfaction with EV ownership**
- ▶ EV owners **adapt** to their new cars, e.g. charging habits, daily range

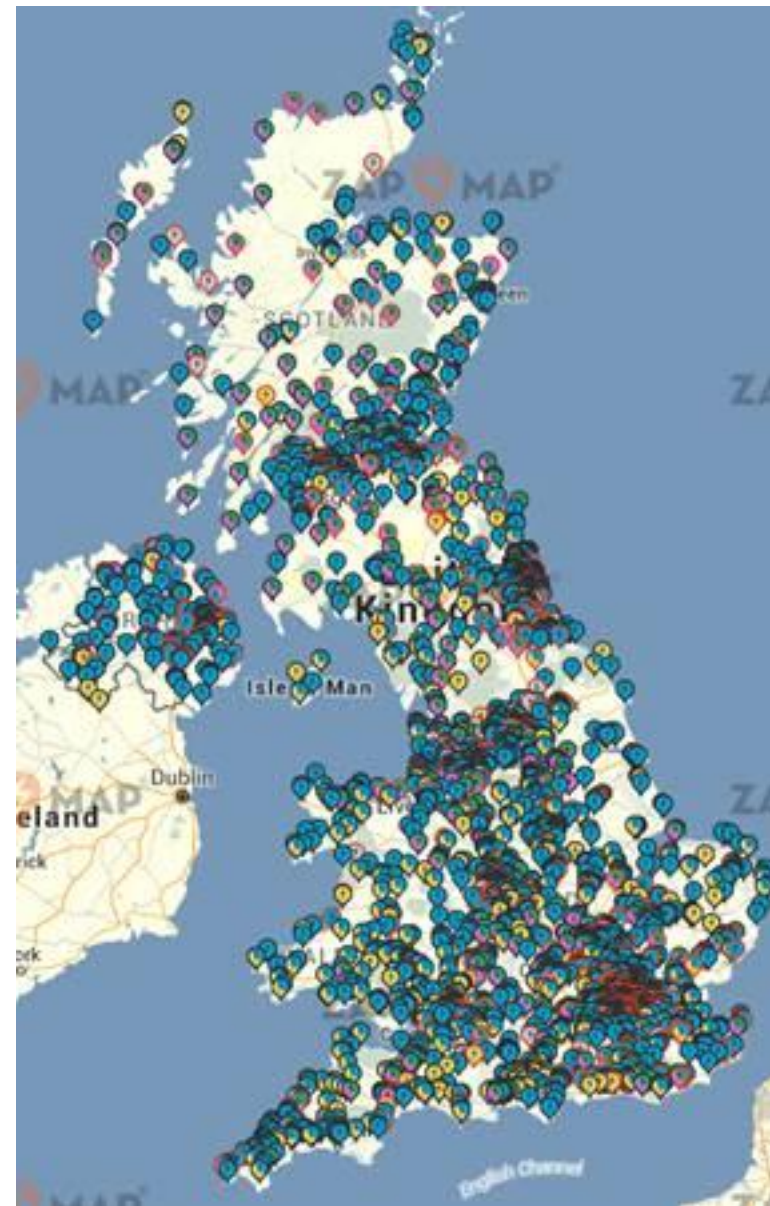




## Range anxiety: the not-so-good news

Range and recharging are major issues, both of **perception and reality**

- ▶ When making decisions, people tend to **give greater prominence to unusual or extreme experiences than more constant experiences**
- ▶ While the 'drive to Scotland' is rarely undertaken, it can't be factored out of decision making
- ▶ Even if it's rare – people still want to know they'll be able to do it
- ▶ Government and industry will have to work with, not against, these behavioural insights

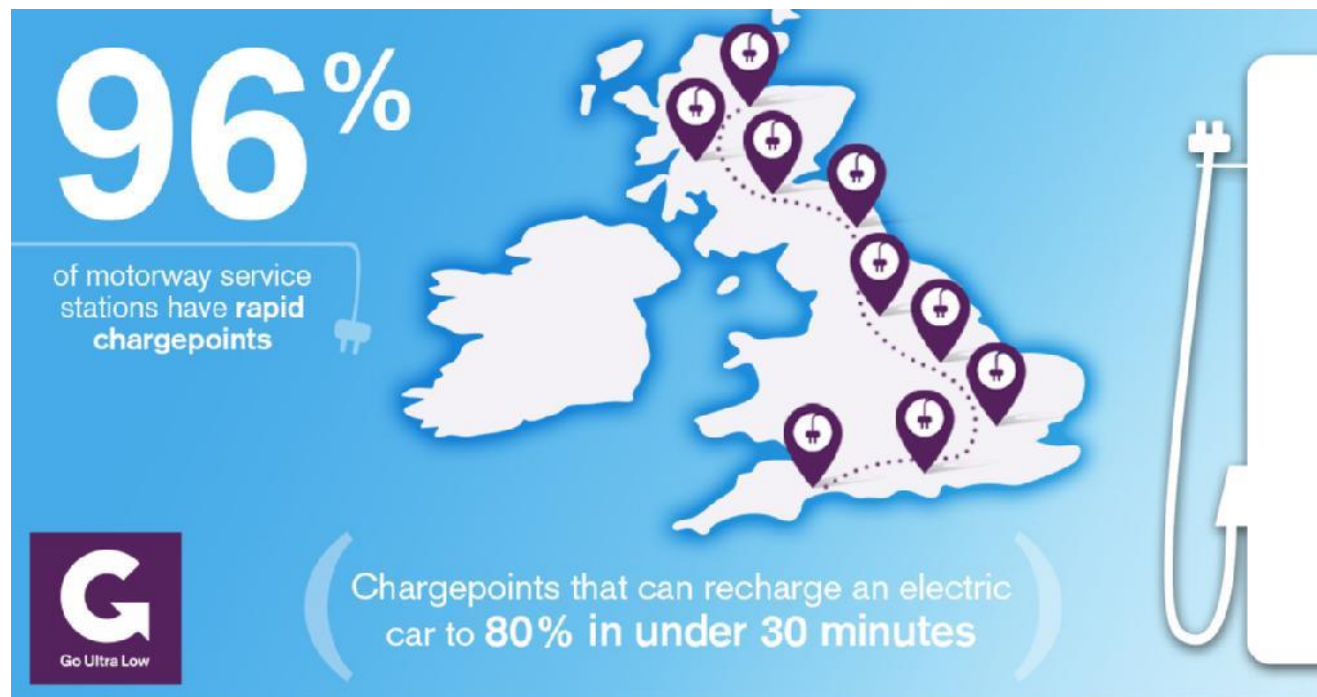




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It's important to work *with* the way people tend to think and behave

700  
miles





## Cost: the challenge

- ▶ People **want a greener car – two thirds** said it was important
- ▶ But people are **motivated more by saving money** than by saving the environment
- ▶ Despite lower running cost, the upfront cost of an EV is higher than the conventional equivalent

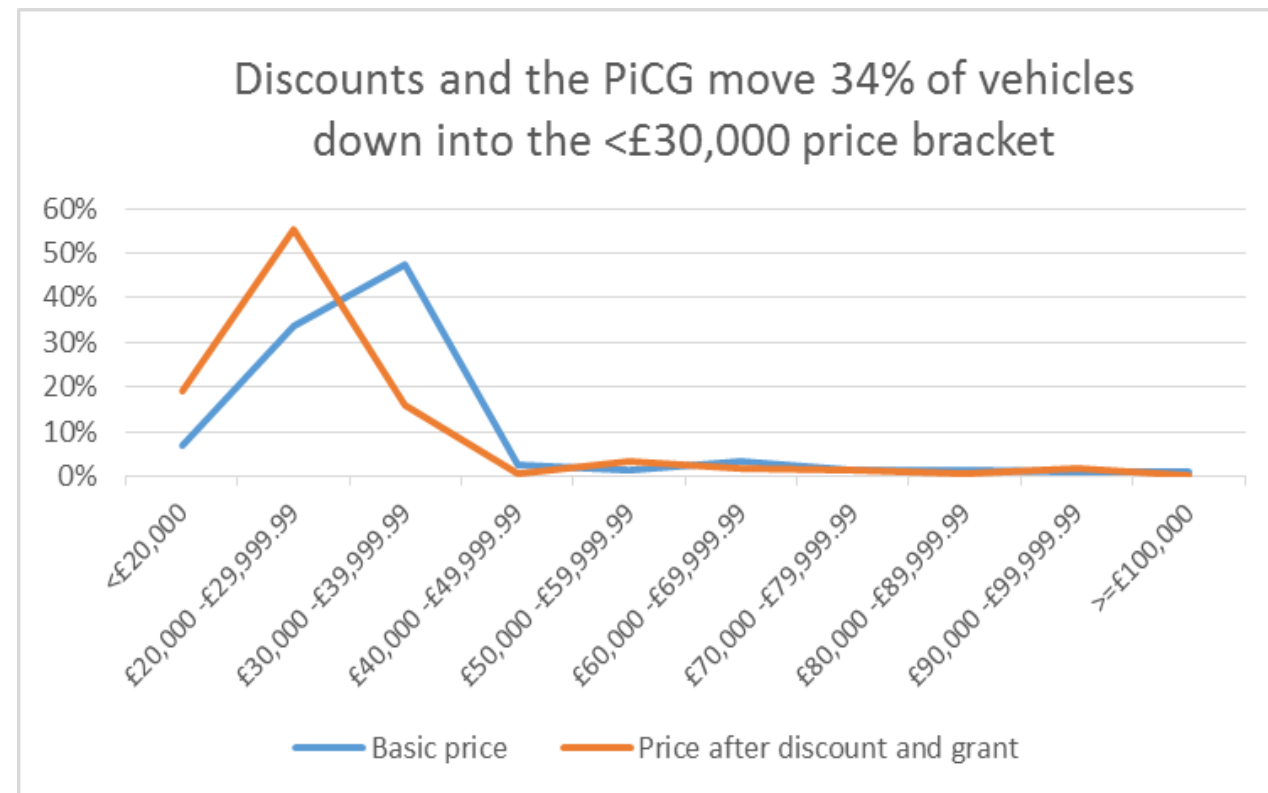
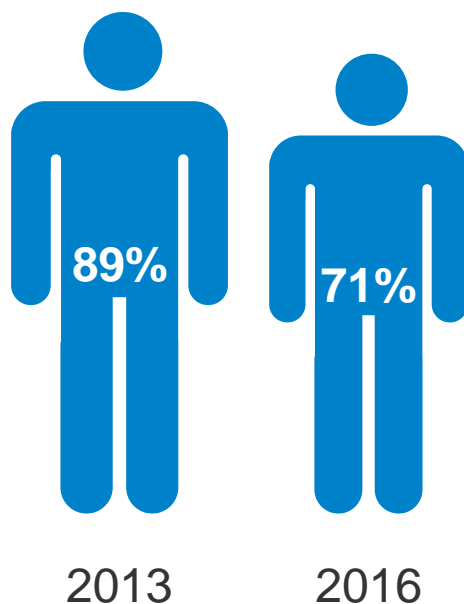
EV purchase price	Conventional car price
Mitsubishi Outlander Plug-in - £31,749	Mitsubishi Outlander - £24,799
Nissan Leaf - £21,290	Ford Focus - £15,995





**93%** of new buyers said the **Plug in Car Grant was important in their decision** to buy an EV

EV purchasing seems to be **becoming more mainstream**: **20% less likely to be male** than in 2013

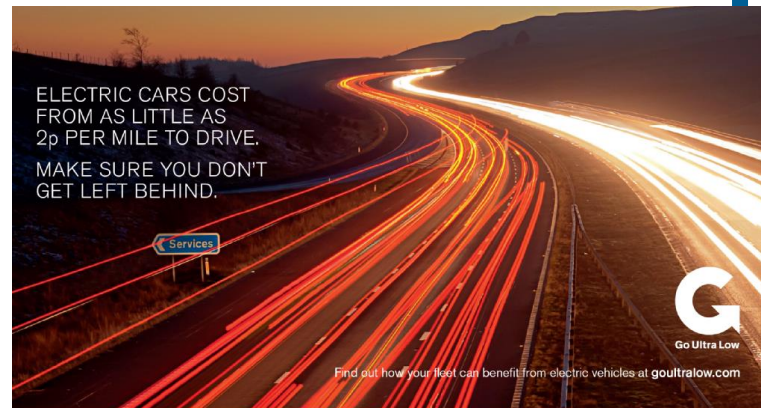






## Cost: the not-so-good news

- ▶ Consumers are not very effective at conducting cost-benefit analyses
- ▶ They give **greater weight to savings over the short-term than the long-term**
- ▶ While enthusiastic about the environment in the abstract, **consumers care more about price than environmental impact when it comes to purchase**



Fuel Economy		VED band and CO <sub>2</sub>	
CO <sub>2</sub> emission figure (g/km)			
<100	A	C	g/km
101-110	B		
111-120	C		
121-130	D		
131-140	E		
141-150	F		
151-160	G		
161-170	H		
171-180	I		
181-190	J		
191-200	K		
201-210	L		
211-220	M		
221-230	N		
231-240	O		
241-250	P		
251-260	Q		
261-270	R		
271-280	S		
281-290	T		
291-300	U		
301-310	V		
311-320	W		
321-330	X		
331-340	Y		
341-350	Z		
351-360	AA		
361-370	AB		
371-380	AC		
381-390	AD		
391-400	AE		
401-410	AF		
411-420	AG		
421-430	AH		
431-440	AI		
441-450	AJ		
451-460	AK		
461-470	AL		
471-480	AM		
481-490	AN		
491-500	AO		
501-510	AP		
511-520	AQ		
521-530	AR		
531-540	AS		
541-550	AT		
551-560	AU		
561-570	AV		
571-580	AW		
581-590	AX		
591-600	AY		
601-610	AZ		
611-620	BA		
621-630	BB		
631-640	BC		
641-650	BD		
651-660	BE		
661-670	BF		
671-680	BG		
681-690	BH		
691-700	BI		
701-710	BJ		
711-720	BK		
721-730	BL		
731-740	BM		
741-750	BN		
751-760	BO		
761-770	BP		
771-780	BQ		
781-790	BR		
791-800	BS		
801-810	BT		
811-820	BU		
821-830	BV		
831-840	BW		
841-850	BX		
851-860	BY		
861-870	BZ		
871-880	CA		
881-890	CB		
891-900	CC		
901-910	CD		
911-920	CE		
921-930	CF		
931-940	CG		
941-950	CH		
951-960	CI		
961-970	CJ		
971-980	CK		
981-990	CL		
991-1000	CM		
1001-1010	CN		
1011-1020	CO		
1021-1030	CP		
1031-1040	CQ		
1041-1050	CR		
1051-1060	CS		
1061-1070	CT		
1071-1080	CU		
1081-1090	CV		
1091-1100	CW		
1101-1110	CX		
1111-1120	CY		
1121-1130	CZ		
1131-1140	DA		
1141-1150	DB		
1151-1160	DC		
1161-1170	DD		
1171-1180	DE		
1181-1190	DF		
1191-1200	DG		
1201-1210	DH		
1211-1220	DI		
1221-1230	DJ		
1231-1240	DK		
1241-1250	DL		
1251-1260	DM		
1261-1270	DN		
1271-1280	DO		
1281-1290	DP		
1291-1300	DQ		
1301-1310	DR		
1311-1320	DS		
1321-1330	DT		
1331-1340	DU		
1341-1350	DV		
1351-1360	DW		
1361-1370	DX		
1371-1380	DY		
1381-1390	DZ		
1391-1400	EA		
1401-1410	EB		
1411-1420	EC		
1421-1430	ED		
1431-1440	EE		
1441-1450	EF		
1451-1460	EG		
1461-1470	EH		
1471-1480	EI		
1481-1490	EJ		
1491-1500	EK		
1501-1510	EL		
1511-1520	EM		
1521-1530	EN		
1531-1540	EO		
1541-1550	EP		
1551-1560	EQ		
1561-1570	ER		
1571-1580	ES		
1581-1590	ET		
1591-1600	EU		
1601-1610	EV		
1611-1620	EW		
1621-1630	EX		
1631-1640	EY		
1641-1650	EZ		
1651-1660	FA		
1661-1670	FB		
1671-1680	FC		
1681-1690	FD		
1691-1700	FE		
1701-1710	FF		
1711-1720	FG		
1721-1730	FH		
1731-1740	FI		
1741-1750	FJ		
1751-1760	FK		
1761-1770	FL		
1771-1780	FM		
1781-1790	FN		
1791-1800	FO		
1801-1810	FP		
1811-1820	FQ		
1821-1830	FR		
1831-1840	FS		
1841-1850	FT		
1851-1860	FU		
1861-1870	FV		
1871-1880	FW		
1881-1890	FX		
1891-1900	FY		
1901-1910	FZ		
1911-1920	GA		
1921-1930	GB		
1931-1940	GC		
1941-1950	GD		
1951-1960	GE		
1961-1970	GF		
1971-1980	GG		
1981-1990	GH		
1991-2000	GI		
2001-2010	GJ		
2011-2020	GK		
2021-2030	GL		
2031-2040	GM		
2041-2050	GN		
2051-2060	GO		
2061-2070	GP		
2071-2080	GQ		
2081-2090	GR		
2091-2100	GS		
2101-2110	GT		
2111-2120	GU		
2121-2130	GV		
2131-2140	GW		
2141-2150	GX		
2151-2160	GY		
2161-2170	GZ		
2171-2180	HA		
2181-2190	HB		
2191-2200	HC		
2201-2210	HD		
2211-2220	HE		
2221-2230	HF		
2231-2240	HG		
2241-2250	HH		
2251-2260	HI		
2261-2270	HJ		
2271-2280	HK		
2281-2290	HL		
2291-2300	HM		
2301-2310	HN		
2311-2320	HO		
2321-2330	HP		
2331-2340	HQ		
2341-2350	HR		
2351-2360	HS		
2361-2370	HT		
2371-2380	HU		
2381-2390	HV		
2391-2400	HW		
2401-2410	HX		
2411-2420	HY		
2421-2430	HZ		
2431-2440	IA		
2441-2450	IB		
2451-2460	IC		
2461-2470	ID		
2471-2480	IE		
2481-2490	IF		
2491-2500	IG		
2501-2510	IH		
2511-2520	II		
2521-2530	IJ		
2531-2540	IK		
2541-2550	IL		
2551-2560	IM		
2561-2570	IN		
2571-2580	IO		
2581-2590	IP		
2591-2600	IQ		
2601-2610	IR		
2611-2620	IS		
2621-2630	IT		
2631-2640	IU		
2641-2650	IV		
2651-2660	IW		
2661-2670	IX		
2671-2680	IY		
2681-2690	IZ		
2691-2700	JA		
2701-2710	JB		
2711-2720	JC		
2721-2730	JD		
2731-2740	JE		
2741-2750	JF		
2751-2760	JG		
2761-2770	JH		
2771-2780	JI		
2781-2790	JJ		
2791-2800	JK		
2801-2810	JL		
2811-2820	JM		
2821-2830	JN		
2831-2840	JO		
2841-2850	JP		
2851-2860	JQ		
2861-2870	JR		
2871-2880	JS		
2881-2890	JT		
2891-2900	JU		
2901-2910	JV		
2911-2920	JW		
2921-2930	JX		
2931-2940	JY		
2941-2950	JZ		
2951-2960	KA		
2961-2970	KB		
2971-2980	KC		
2981-2990	KD		
2991-3000	KE		
3001-3010	KF		
3011-3020	KG		
3021-3030	KH		
3031-3040	KI		
3041-3050	KJ		
3051-3060	KK		
3061-3070	KL		
3071-3080	KM		
3081-3090	KN		



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# Summary



## Key messages

- ▶ People's attitudes and behaviour are critical to the success of this policy area. We need to work with, rather than against, people's preferences
- ▶ Current interventions appear to be making a difference
- ▶ Behavioural insights can help us to achieve more to change behaviour – by making owning an EV feel more attractive and more 'doable'



## Key research and our contacts

[Uptake of Low Emission Vehicles in the UK: a Rapid Evidence Assessment](#) (2015)

[Assessing the role of the Plug-in Car Grant and Plugged-in Places scheme in electric vehicle take-up](#) (2013)

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Thank you