

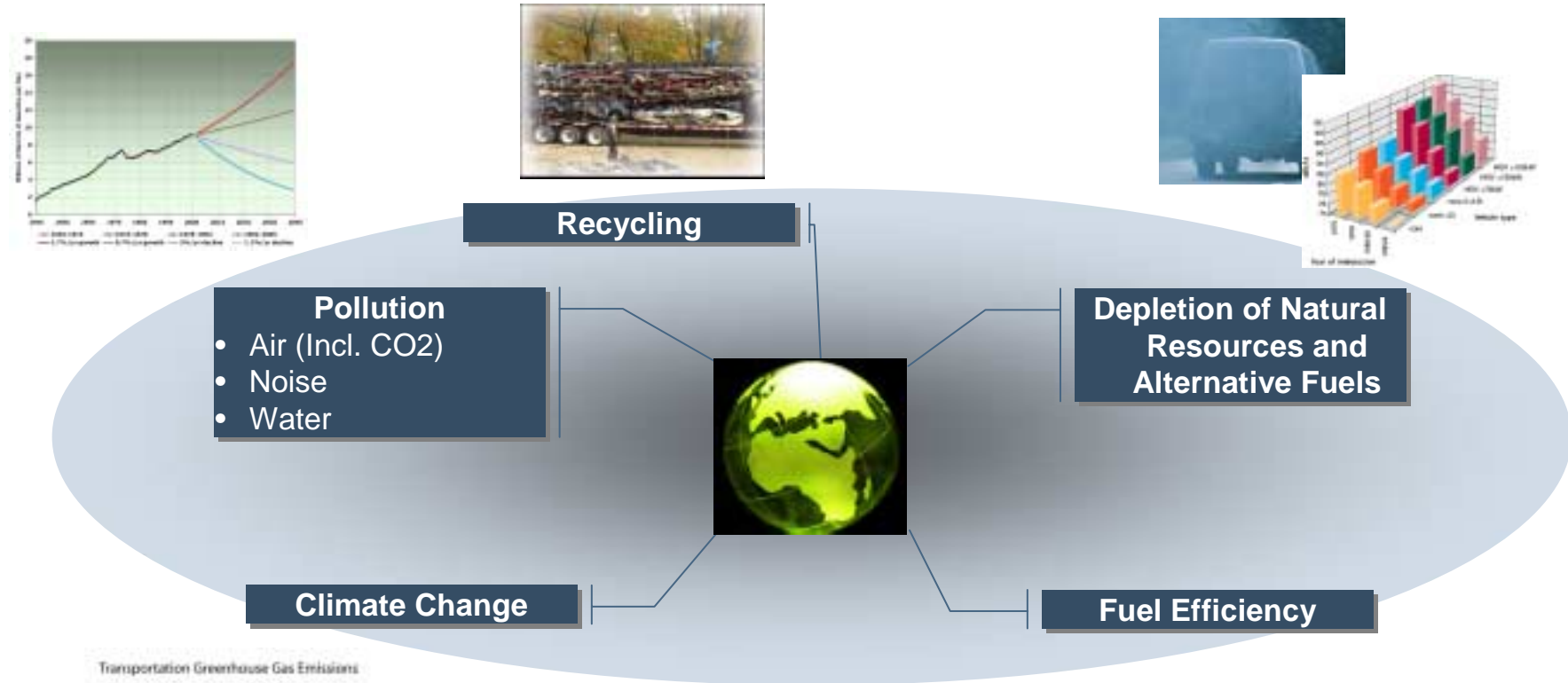


European Consumers' Attitudes & Perceptions Towards Sustainability, Environment and Alternate Power-trains

engineexpo2008

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The Study Focuses on 5 Key Parameters that Define the Sustainability and Environmental Impact of Products



Pollution

- Air (Incl. CO2)
- Noise
- Water

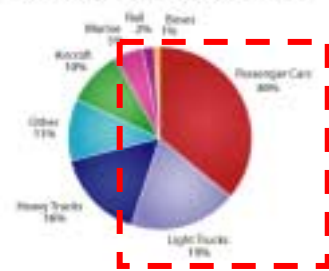
Recycling

Depletion of Natural Resources and Alternative Fuels

Climate Change

Fuel Efficiency

Transportation Greenhouse Gas Emissions



Passenger Cars + Light Trucks – 55%



Methodology & Sample Size

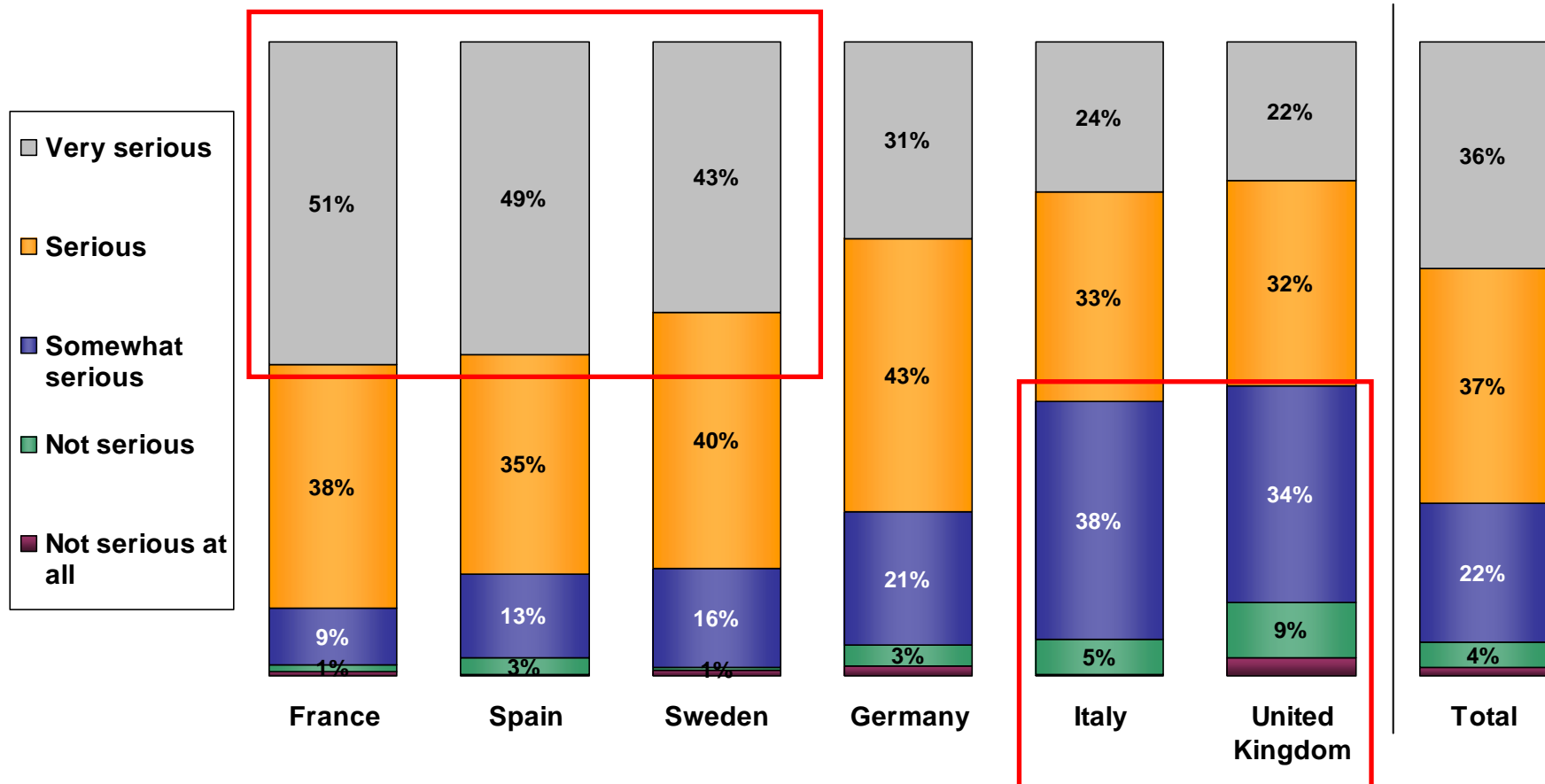
- A web survey was conducted using a randomly screened on-line consumer panel, consumers were given incentives
- In all **2,648** interviews were conducted for this survey and F&S ensured that a solid representation of vehicle segments were captured from each country covered including France, UK, Germany, Italy and Spain
- Respondents were recruited based on vehicle segment who were personally involved in the purchase decision of the vehicles.
- A good representation of different age groups (younger than 17 were screened out) and gender to ensure a good representation of different consumers
- The table below shows the sample size by country and vehicle segment

	France		Germany		Italy		Spain		Sweden		UK		Total	
A&B	150	24.7%	152	25.0%	77	24.3%	76	25.3%	40	19.0%	151	25.0%	646	24.4%
C	151	24.9%	150	24.6%	77	24.3%	75	25.0%	43	20.4%	149	24.7%	645	24.4%
D&E	149	24.5%	150	24.6%	77	24.3%	76	25.3%	45	21.3%	150	24.8%	647	24.4%
MPV	81	13.3%	75	12.3%	48	15.1%	38	12.7%	43	20.4%	79	13.1%	364	13.7%
SUV - Large	61	10.0%	56	9.2%	22	6.9%	23	7.7%	24	11.4%	60	9.9%	246	9.3%
SUV - Small	15	2.5%	26	4.3%	16	5.0%	12	4.0%	16	7.6%	15	2.5%	100	3.8%
Total	607	100.0%	609	100.0%	317	100.0%	300	100.0%	211	100.0%	604	100.0%	2,648	100.0%

7 in 10 Europeans feel climate change is serious or very serious, while French, Spanish and Swedish rate climate change the most seriously

Q4 How serious do you believe issues concerning climate change really are? Means calculated out of 5

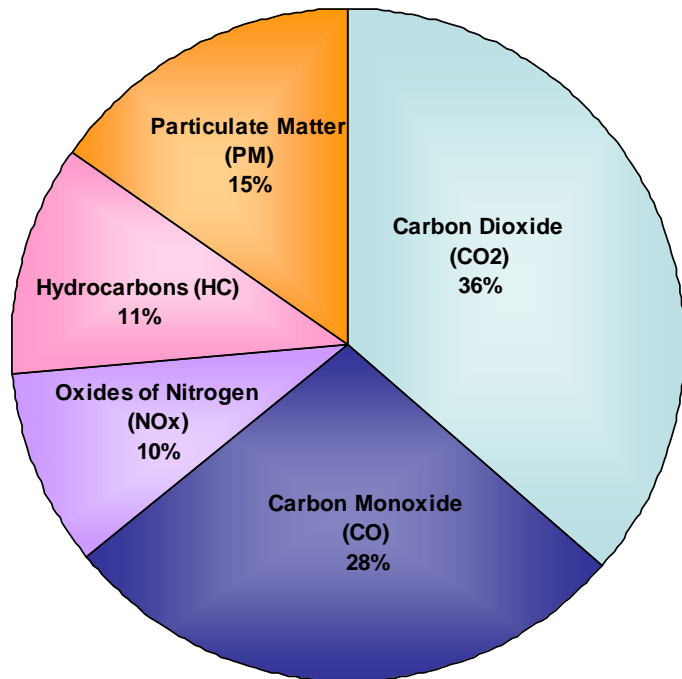
Mean score	4.4	4.3	4.2	3.9	3.7	3.6	4.0
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CO2 seen as most harmful vehicle emission overall in Europe

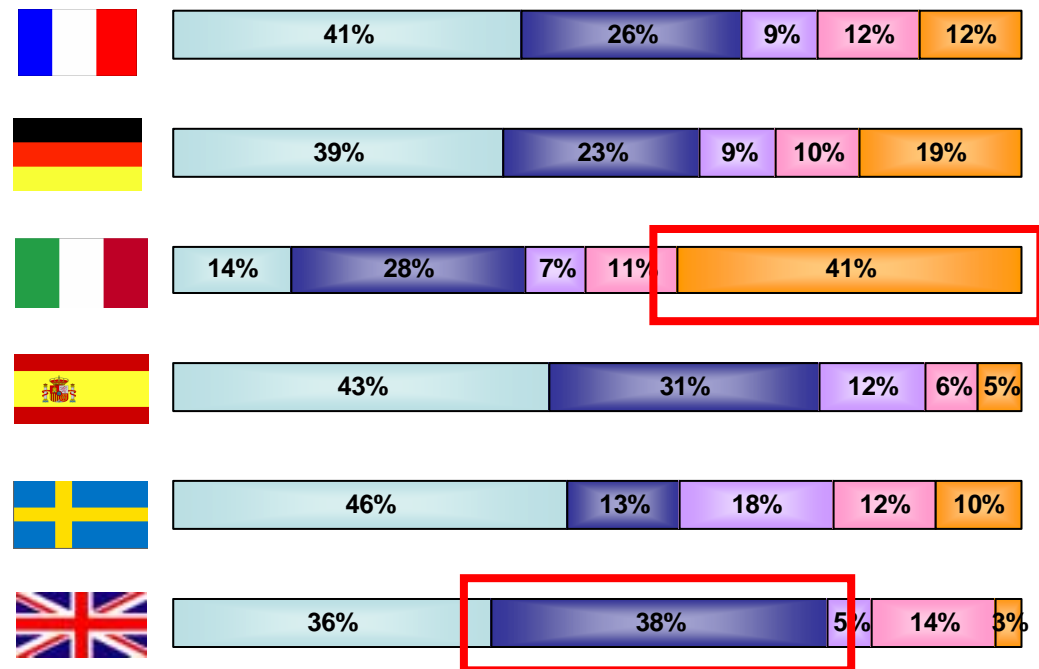
Q6 Please rank the following vehicle emissions in terms of their impact on the environment. Please rank from 1, 'Most Harmful' to the environment, to 5, 'Least Harmful' to the environment - *Excluding those that selected don't know*

Total European Response



Country-wise Breakdown

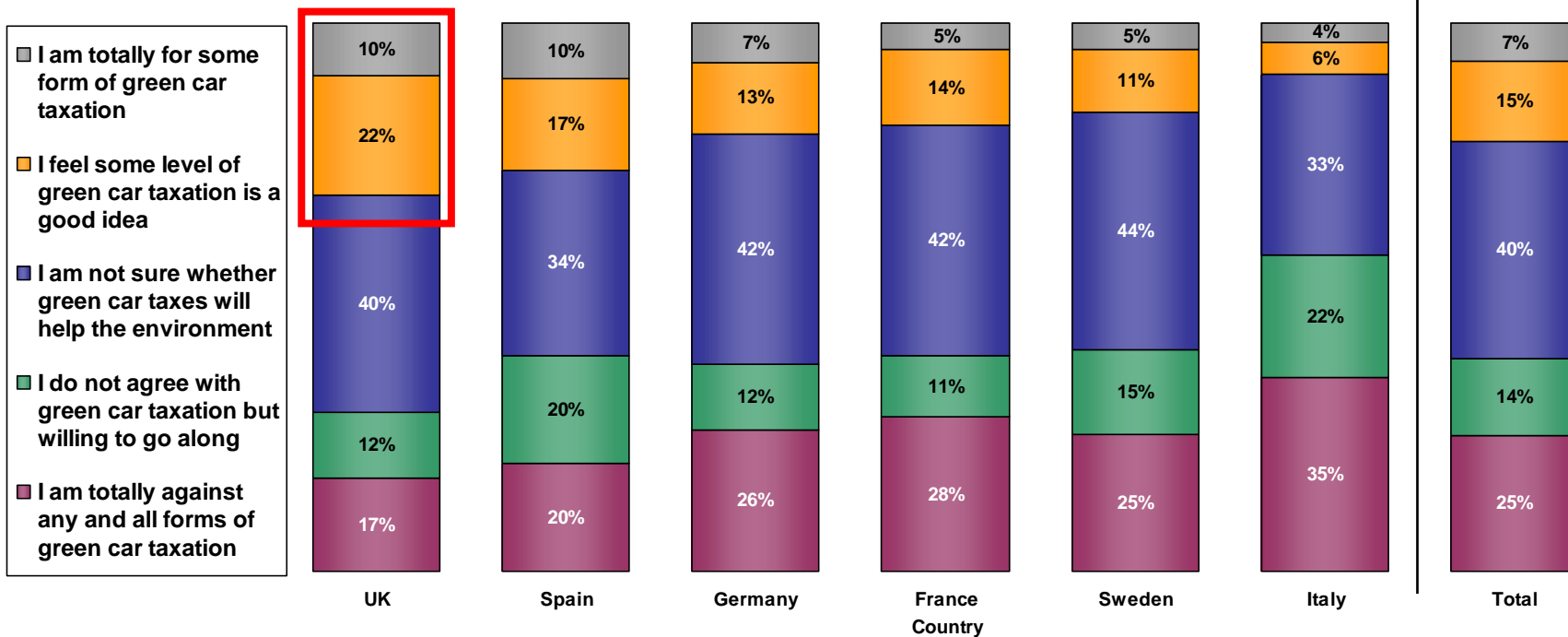
Legend: CO2 (light blue), CO (dark blue), NOx (purple), HC (pink), PM (orange)



1 in 3 consumers in the UK agree with 'green car taxation', Italians significantly more against it

While a third of UK consumers are for some form of green car taxation, 40% feel they are not sure green car taxation will help the environment. Interestingly, Italian consumers are the most against green car taxation.

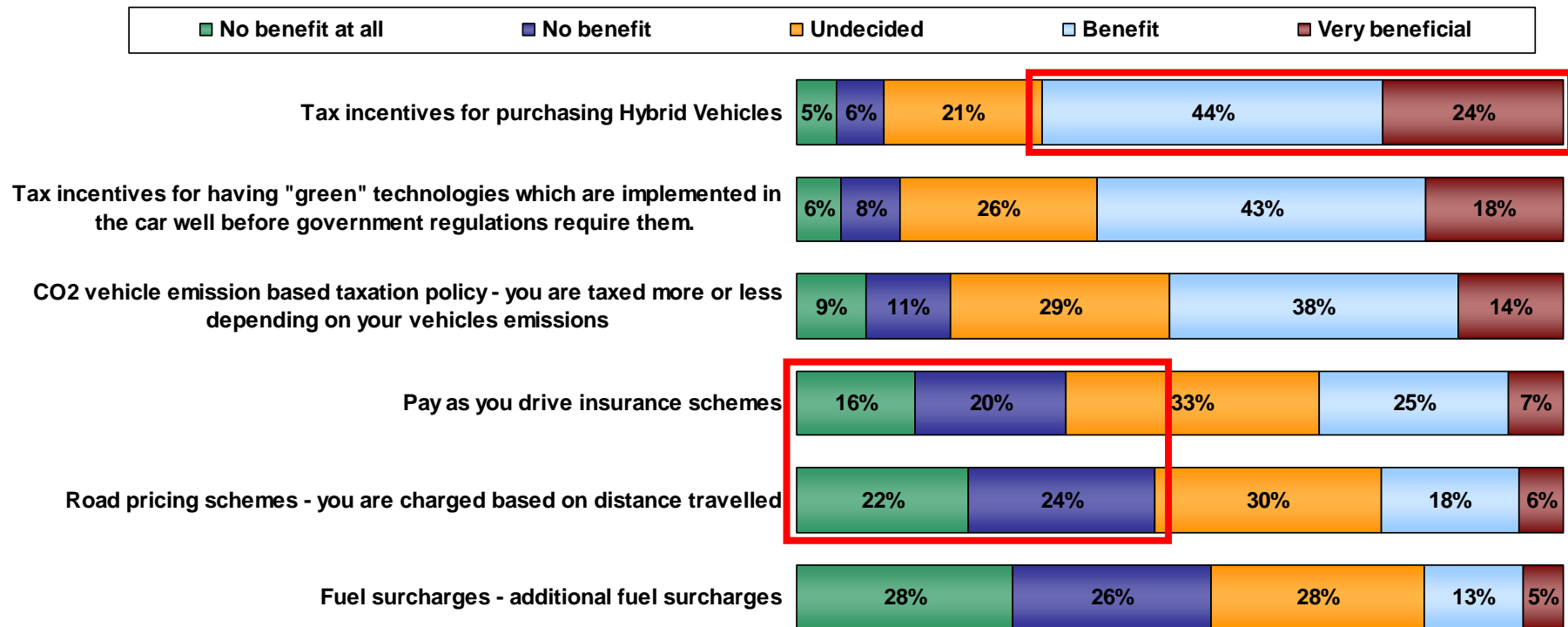
Q10 In terms of 'green' car taxes which of the following applies to how you feel about them? Please select only one



Tax incentives for hybrid vehicles and 'green' technologies will best benefit the environment

7 in 10 consumers say that tax incentives for hybrid vehicles and adopting 'green' technologies will benefit the environment most. When data is compared to Q11, data suggests that incentives for purchasing hybrids are more favorably perceived than 'green' vehicle taxation initiatives.

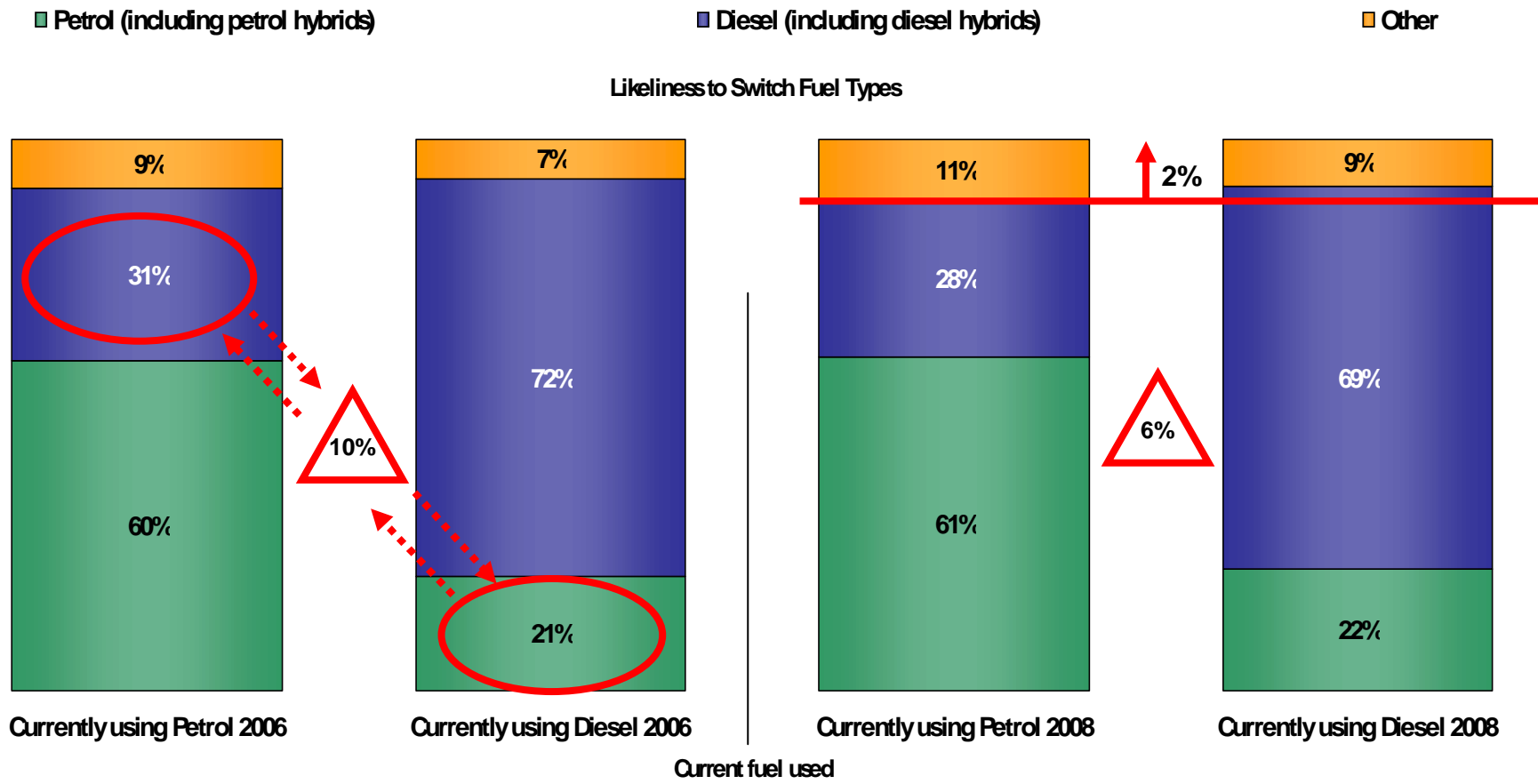
Q12 How much do you think the following 'green tax' initiatives for cars will benefit the environment?



Impact on Powertrain Choice

Greater likeliness to consider alternative fuels in 2008

Q30 Please enter percentages to indicate the likelihood that the next vehicle you purchase will use each of the following fuel types (The three responses must total 100%)

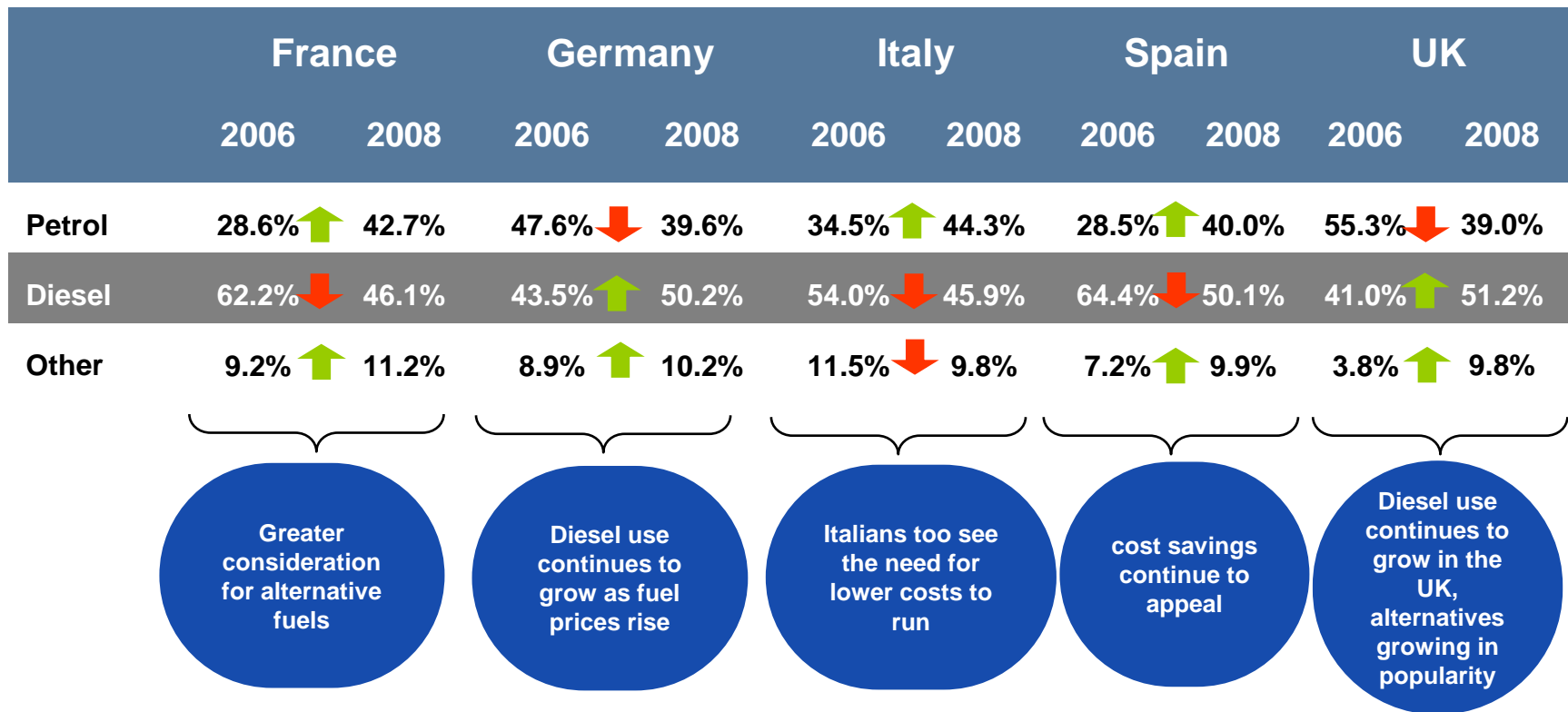


Note: Those that selected others generally referred to LPG/CNG, Bio-fuel, Electric and Hybrid.

Base: 2006 petrol n=777, diesel n=906 (excludes Sweden), 2008 petrol n=1,163, diesel n=1,219 (excludes Sweden)

Germany & UK more likely to use diesel than in 2006 for next vehicle, all countries except Italy more likely to use alternative fuels

Q30 Please enter percentages to indicate the likelihood that the next vehicle you purchase will use each of the following fuel types (The three responses must total 100%)



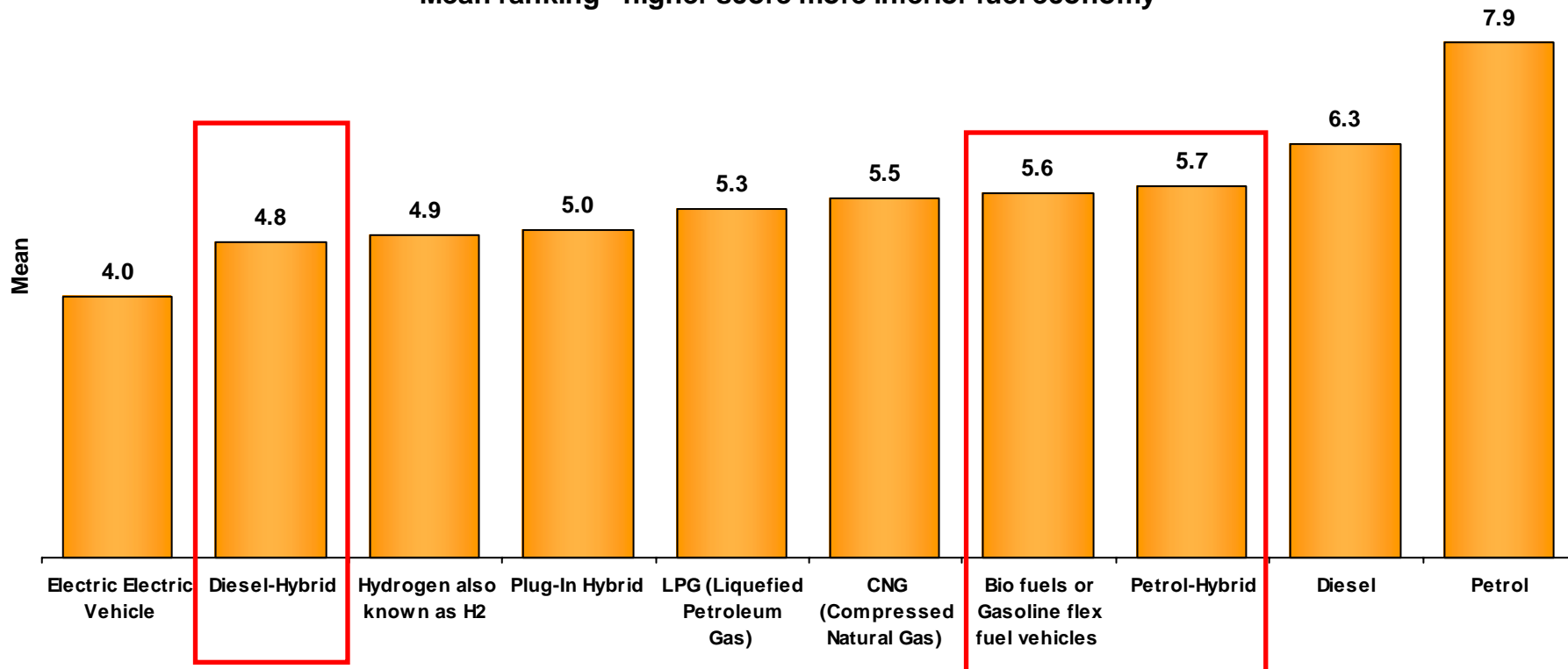
Base: 2006: Spain n=200, France n=400, Italy n=400, Germany n=400, UK n=400; 2008: Spain n=300, France n=607, Italy n=317, Germany n=609, UK n=604 (excludes Sweden)

Diesel-hybrid ranked second best fuel economy after Electric

Diesel-hybrid is seen as the second best for fuel economy after electric, with H2, plug-in hybrid and LPG second, third and fourth respectively. The results show that because hybrids that use petrol are linked to petrol (petrol having the most inferior fuel economy) it may impact adoption negatively unless OEM's provide information to show the improvements in fuel economy that a petrol hybrid is able to provide. Interesting too is that while bio-fuels or flex fuel vehicles, in reality do have good fuel economy, many consumers give them a relatively low rank when compared to the likes of LPG or CNG.

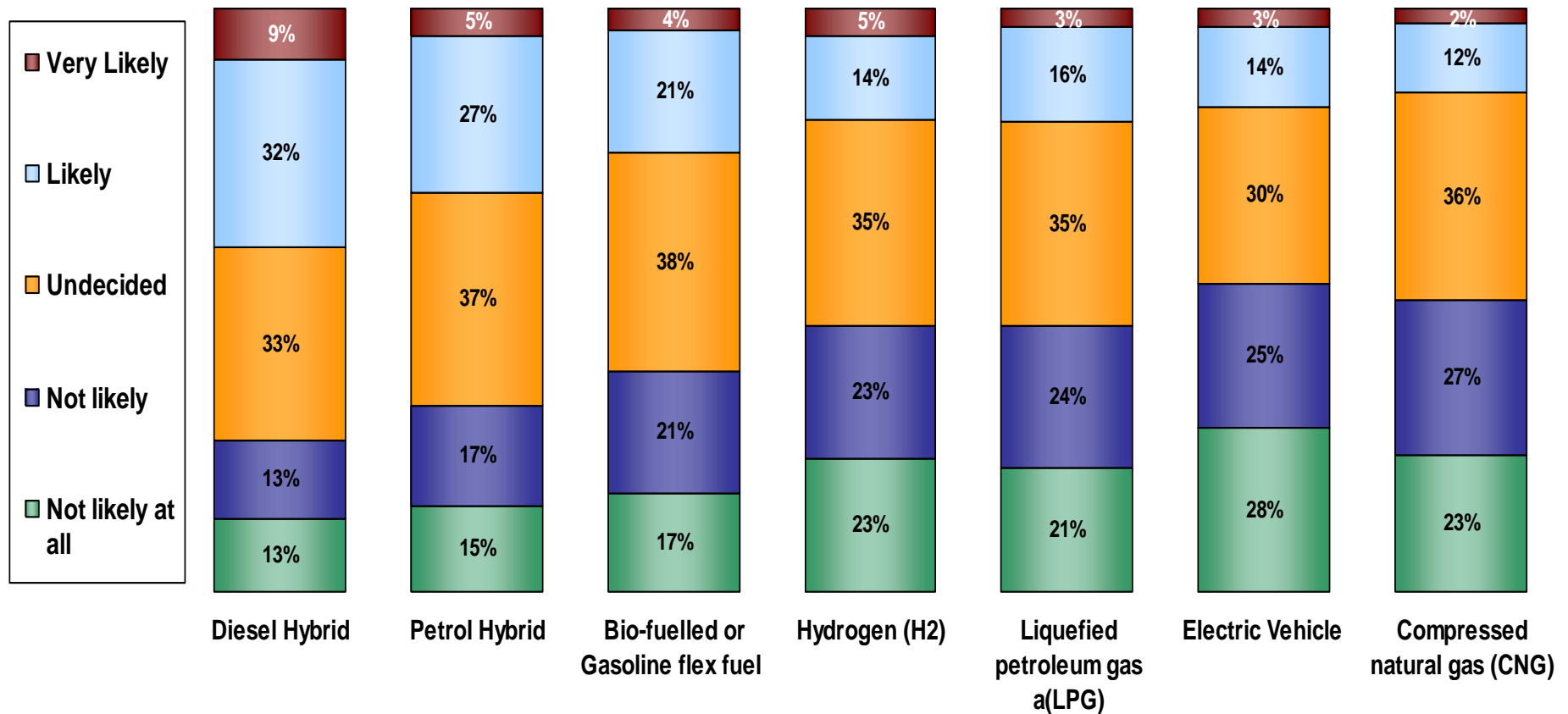
Q32 Please rank the following vehicle engine types based on their fuel economy? Please rank from 1, 'Best fuel economy – cost the least to run' to 8, 'Worst fuel economy – cost the most to run'

Mean ranking - higher score more inferior fuel economy



1 in 3 likely or very likely to consider petrol or diesel hybrid, CNG least likely to be considered

Q31 How likely are you to consider the following fuel/engine types for your next car purchase?

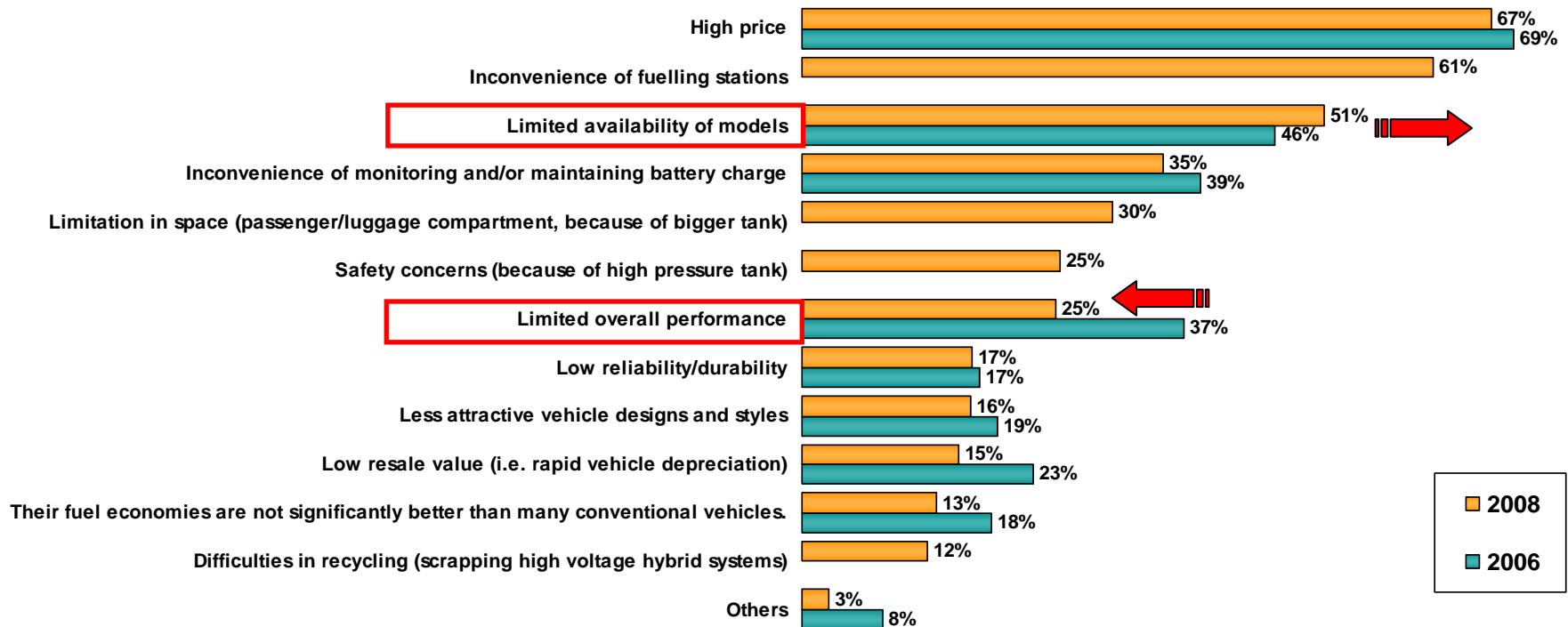


High price, fuelling stations and limited available models holding back adoption of hybrid & alternative fuelled vehicles

While high price remained the leading reason for disliking hybrid and alternative fuelled vehicles among consumers, inconvenience of fuelling stations and limited availability of models were also leading barriers to adoption. Interestingly, there were significantly more consumers in 2008 over 2006 that felt there were limited availability of models. Around 1 in 3 consumers felt that space and safety were issues, while those concerned about performance dropped significantly, whereby consumers showed a solid drop in concern about overall performance.

Q28 What do you dislike most about Hybrid and Alternative Fuelled cars? Please select all that apply

Dislike about hybrid & alternative fuelled vehicles



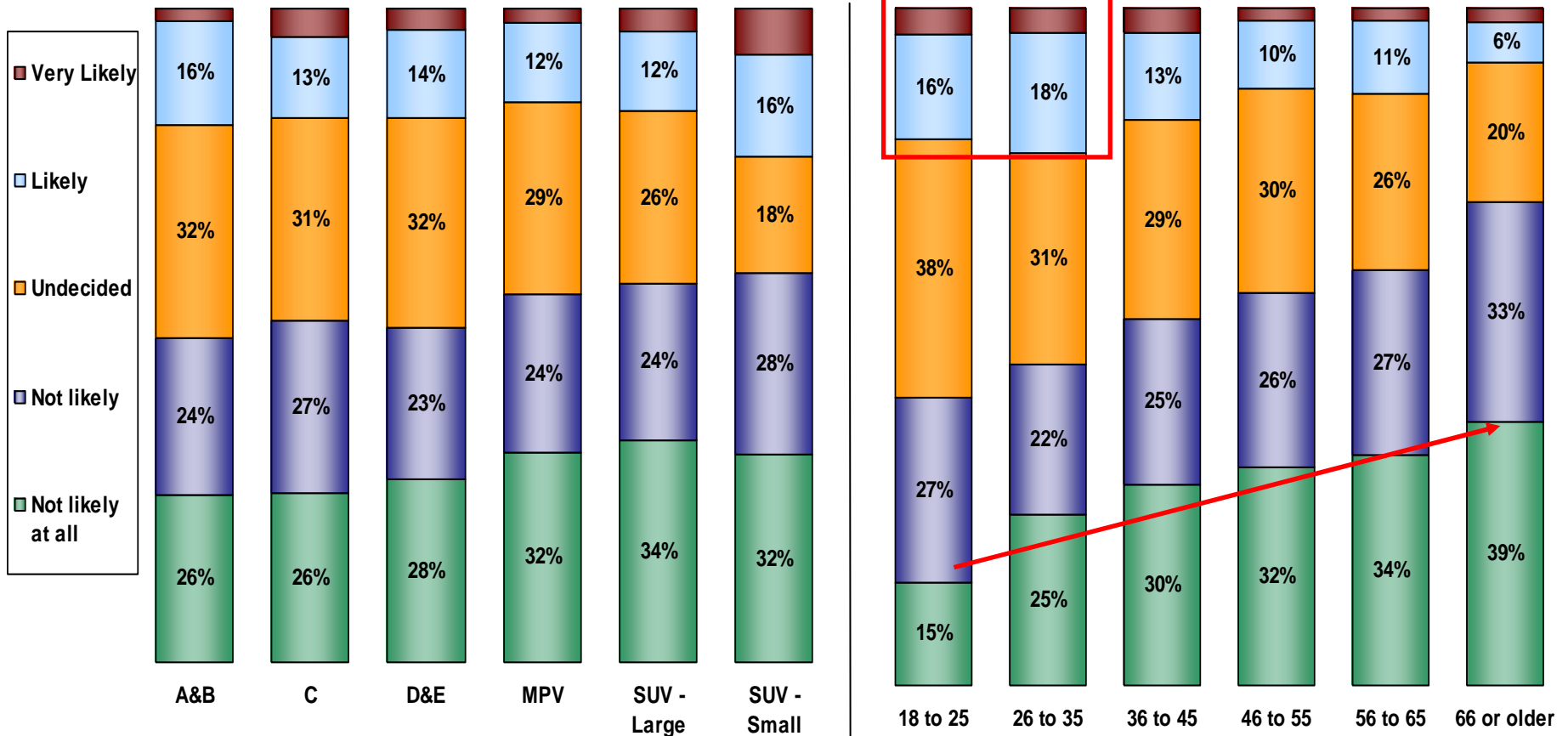
*Please note that results taken from 2006 reflect consumers being asked only about hybrid vehicles while 2008 results include being asked about Hybrid and alternative fuelled vehicles

Younger consumers less resistant to electric vehicles

Q31 How likely are you to consider the following fuel/engine types for your next car purchase? **Electric**

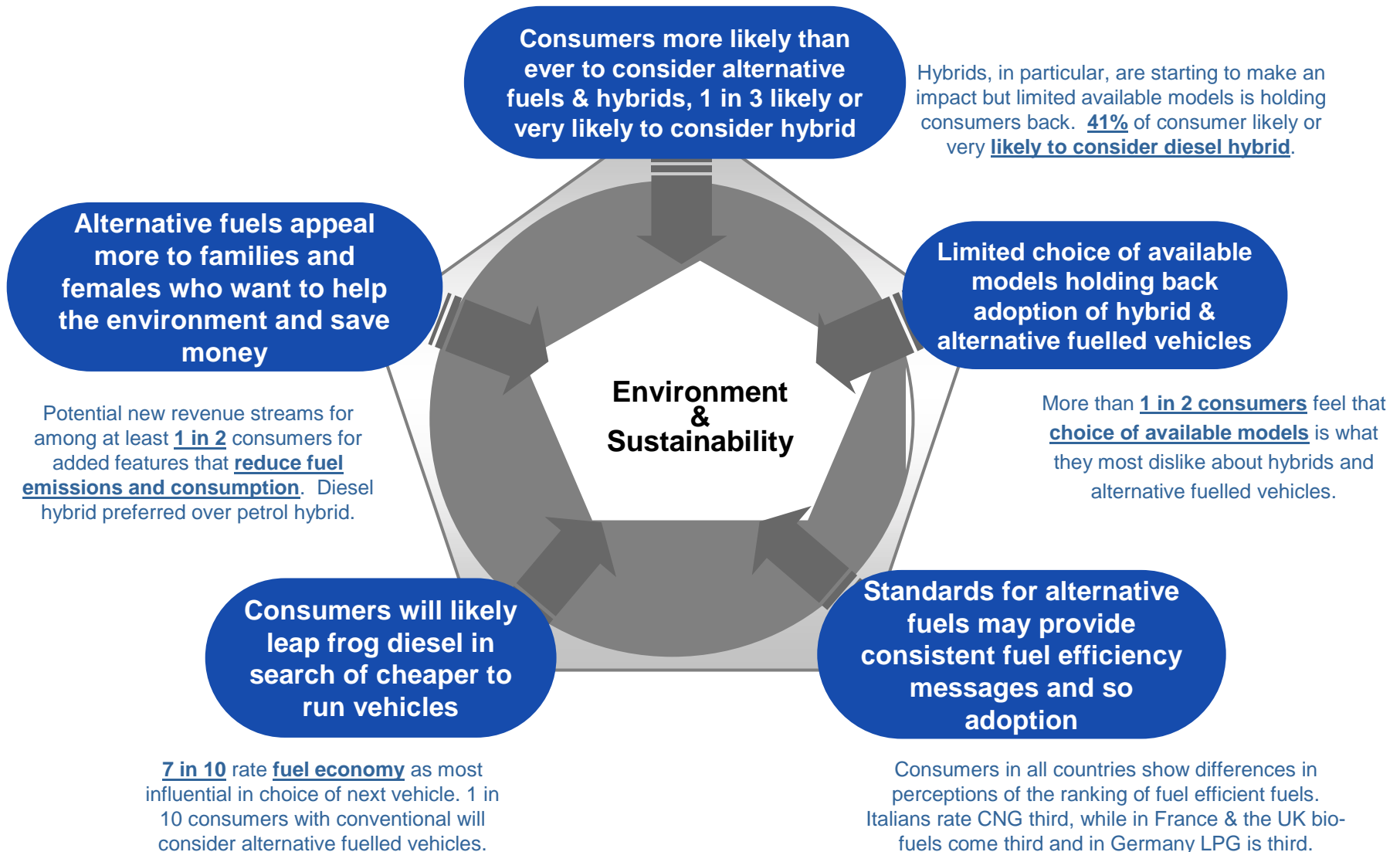
Vehicle Segment

Age



Base: 2008 n=2,657, A&B n=646, C n=650, D&E n=649, MPV n=364, SUV small n=101, SUV large n=247, Level of significance: 95% (right-tail: 2.5%)

Conclusions & Recommendations



Questions & Answers



"We Accelerate Growth"