

What next to tackle climate change?

Environmental Expo Conference

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Director Low Carbon Vehicle Partnership

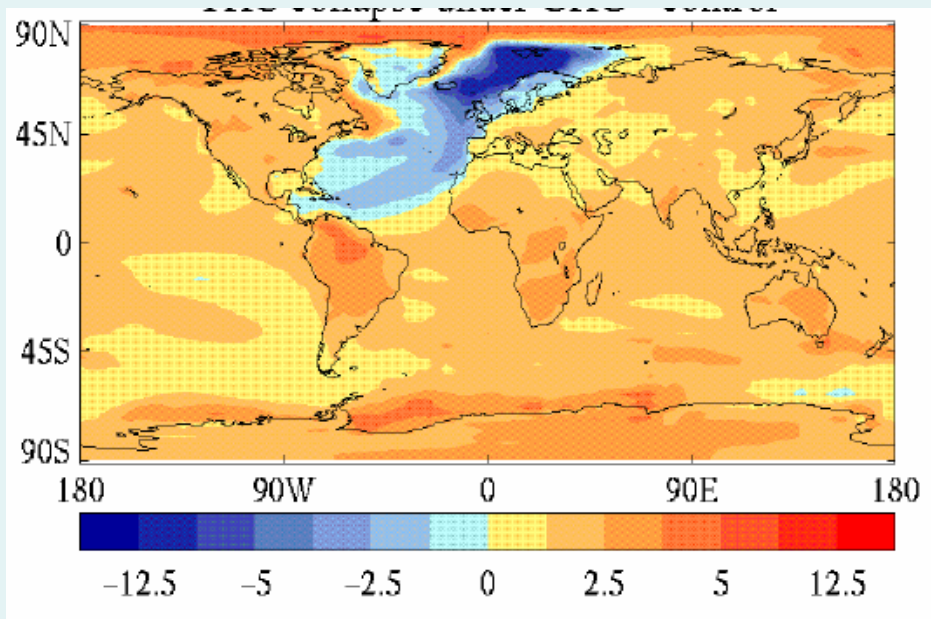
Low Carbon Vehicle Partnership

Accelerating a sustainable shift to low carbon vehicles and fuels in the UK

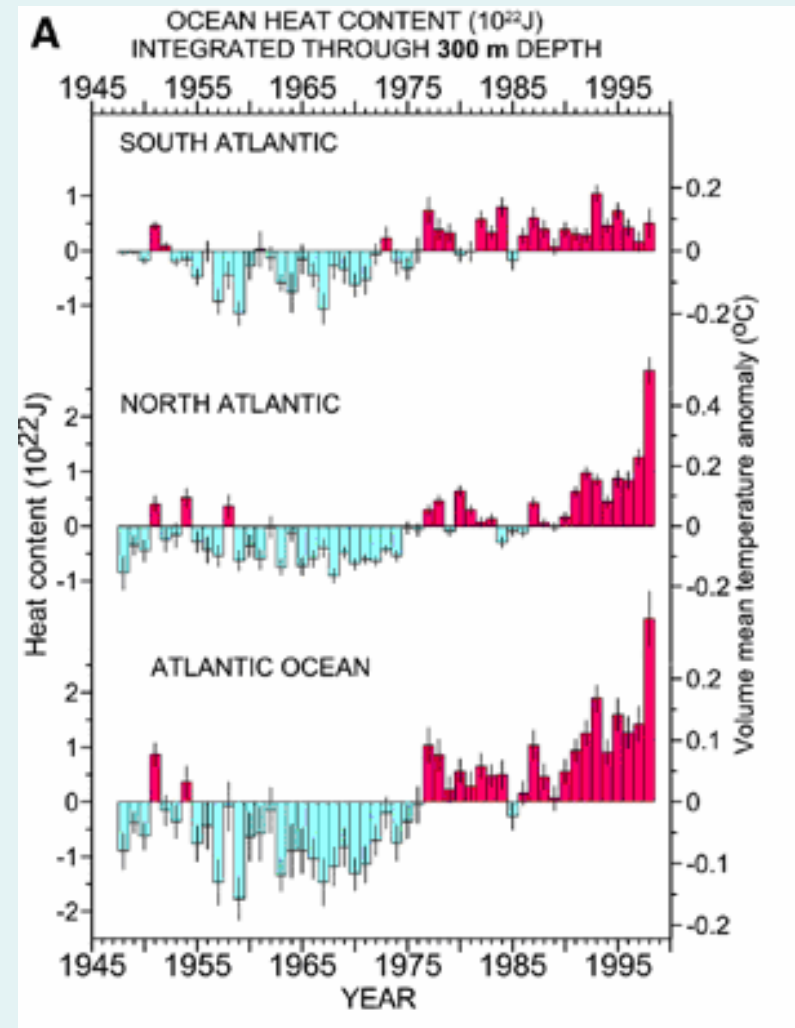
Stimulating opportunities for UK businesses

Fuel Economy		Ford Fiesta 1.4 TDCi ZETEC
CO₂ emission figure (g/km) <div><div><100A</div><div>101-120B</div><div>121-150C</div><div>151-165D</div><div>166-185E</div><div>186+F</div></div>		<div>B117 g/km</div>
Fuel cost (estimated) for 12,000 miles <small>A fuel cost figure indicates to the consumer a guide fuel price for comparison purposes. This figure is calculated by using the combined drive cycle (town centre and motorway) and average fuel price. Re-calculated annually, the current cost per litre is as follows – petrol 76p, diesel 78p and LPG 38p (VCA May 2004).</small>		£662
VED for 12 months <small>Vehicle excise duty (VED) or road tax varies according to the CO₂ emissions and fuel type of the vehicle.</small>		£85
Environmental Information <p>A guide on fuel economy and CO₂ emissions which contains data for all new passenger car models is available at any point of sale free of charge. In addition to the fuel efficiency of a car, driving behaviour as well as other non-technical factors play a role in determining a car's fuel consumption and CO₂ emissions. CO₂ is the main greenhouse gas responsible for global warming.</p>		
Make/Model Ford Fiesta 1.4 TDCi ZETEC Fuel type Diesel		Engine capacity (cc): 1399 Transmission type: 5 speed manual
Fuel Consumption:		
Drive cycle	Litres/100km	Mpg
Urban	5.4	52.3
Extra-urban	3.8	74.3
Combined	4.4	64.2
Carbon dioxide emissions (g/km): 117g/km Important note: Some specifications of this make/model may have lower CO ₂ emissions than this. Check with your dealer.		
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Growing evidence indicates the oceans are influenced by climate change – with potentially extreme consequences

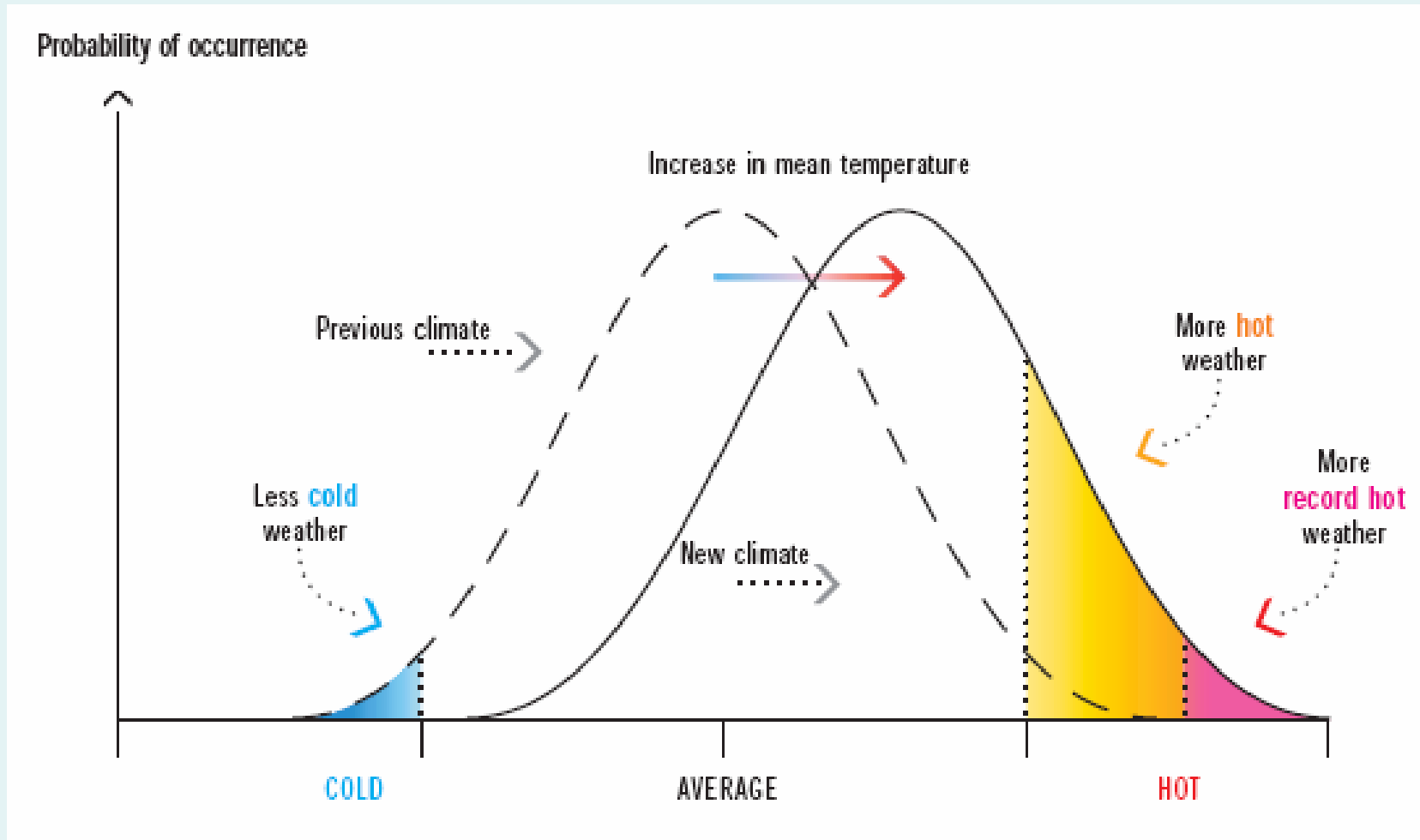


http://www.stabilisation2005.com/33_Richard_Wood.pdf

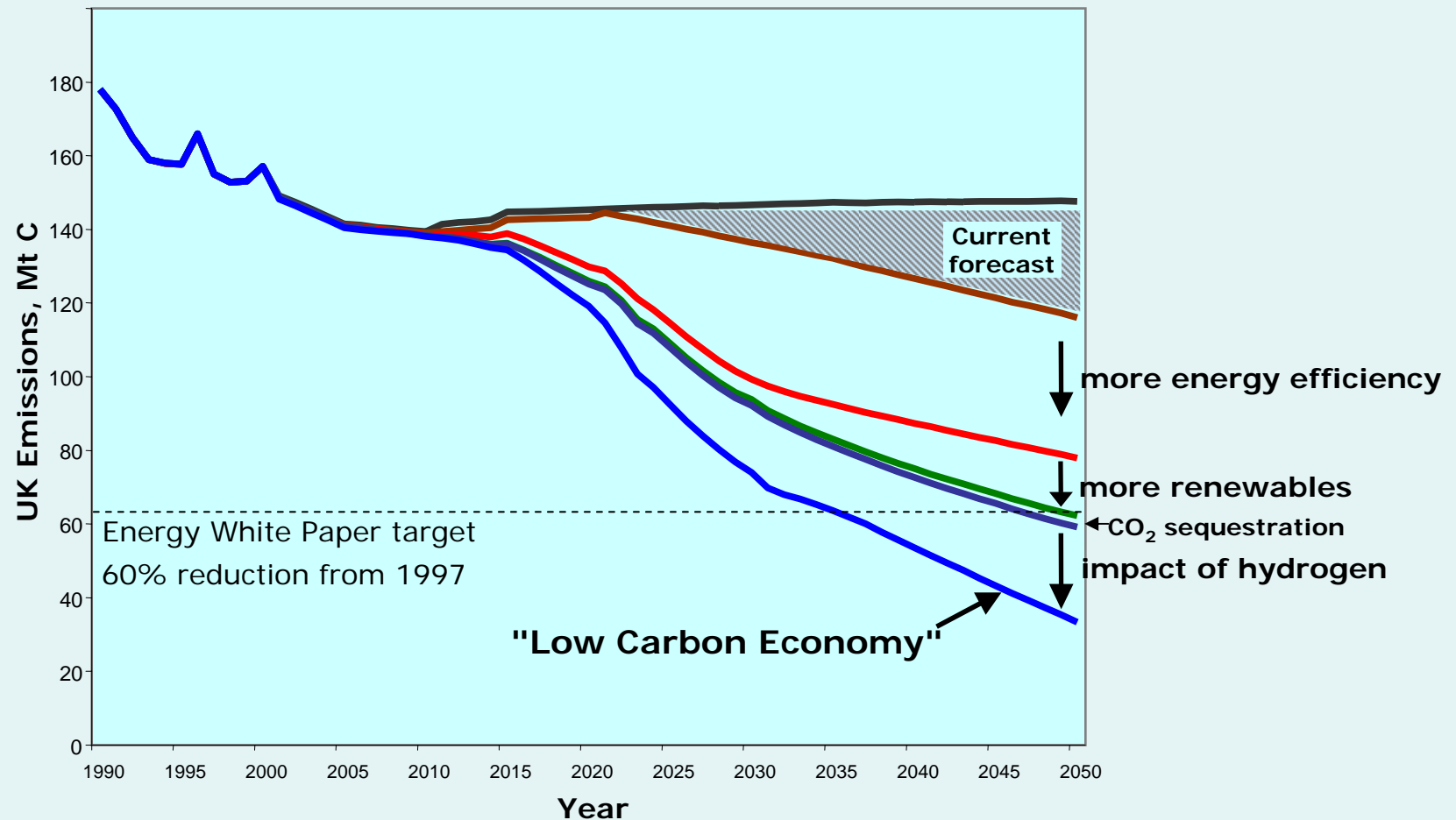


http://www.sciencemag.org/feature/data/1046907s1_large.jpeg

Climate change has doubled the risk of extreme summer heat waves such as that which caused c24,000 deaths in Western Europe in 2003



A low carbon economy is technically feasible with current and emerging technologies – Energy efficiency and renewables are the main drivers



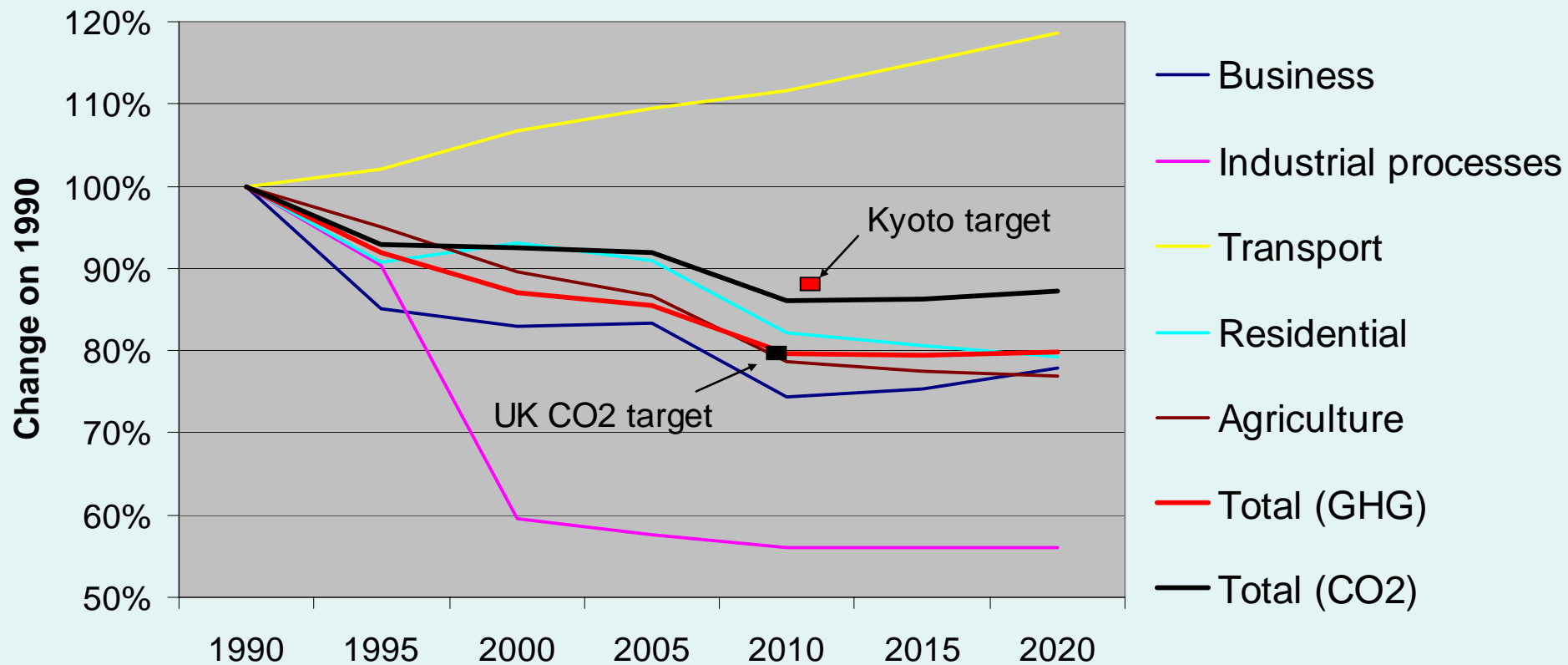
Delivering a low carbon economy requires a stronger focus on addressing non-technical barriers

- ❑ Alternative fuels
 - Cost relative to conventional fuels
 - Technical specifications
 - Infrastructure - vehicle availability
- ❑ Energy efficiency
 - Low energy costs
 - Increased business and public awareness
- ❑ Wind
 - Planning constraints
 - Environmental impacts
- ❑ Low carbon vehicles
 - Consumer demand
 - Price
 - Market distortions
- ❑ Waste to energy / Nuclear
 - Public acceptability



UK has achieved its Kyoto target, but is projected to significantly miss that for domestic CO2

Changes in UK GHG emissions by principal end user sectors



CO2 emissions from new cars have declined by 10% since 1995 but remained virtually unchanged in recent years

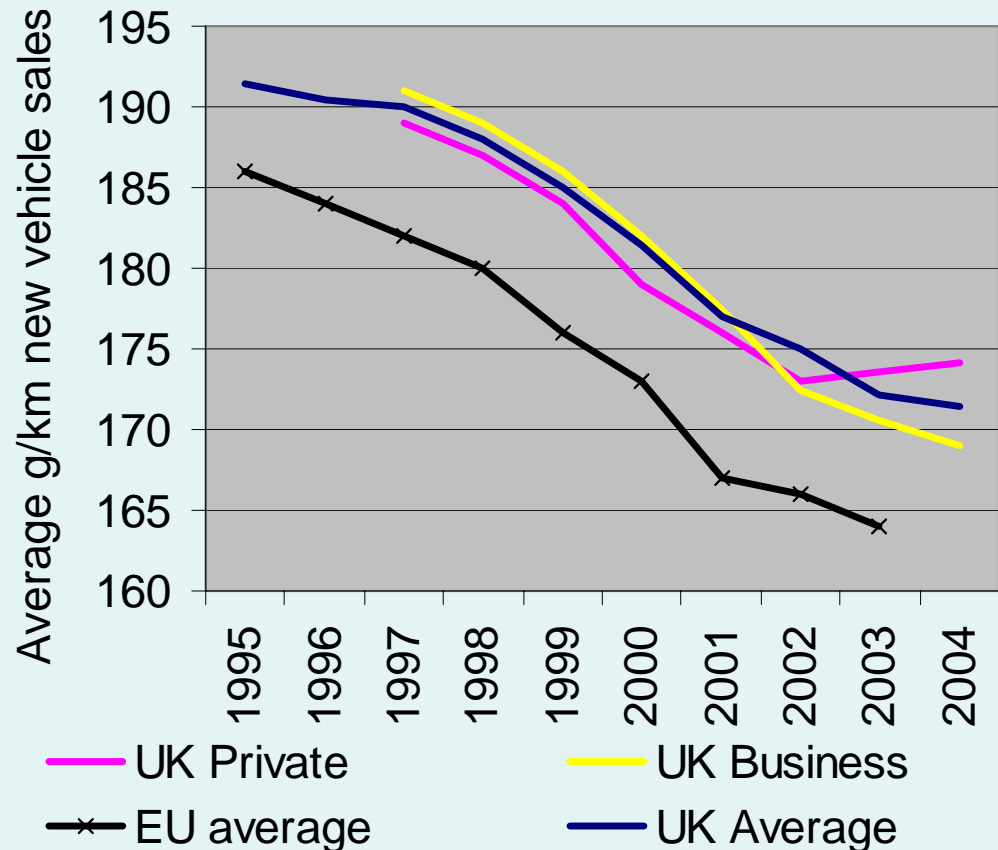
Powering Future Vehicle Targets

□ 10% Low-carbon vehicles by 2012

- <0.1% sales low carbon 2004

□ 600 low-carbon buses pre year by 2012

- Current sales weak
- Grants programme currently awaiting EC approval
- Bus Service Operators Grant distorts market against LC-buses



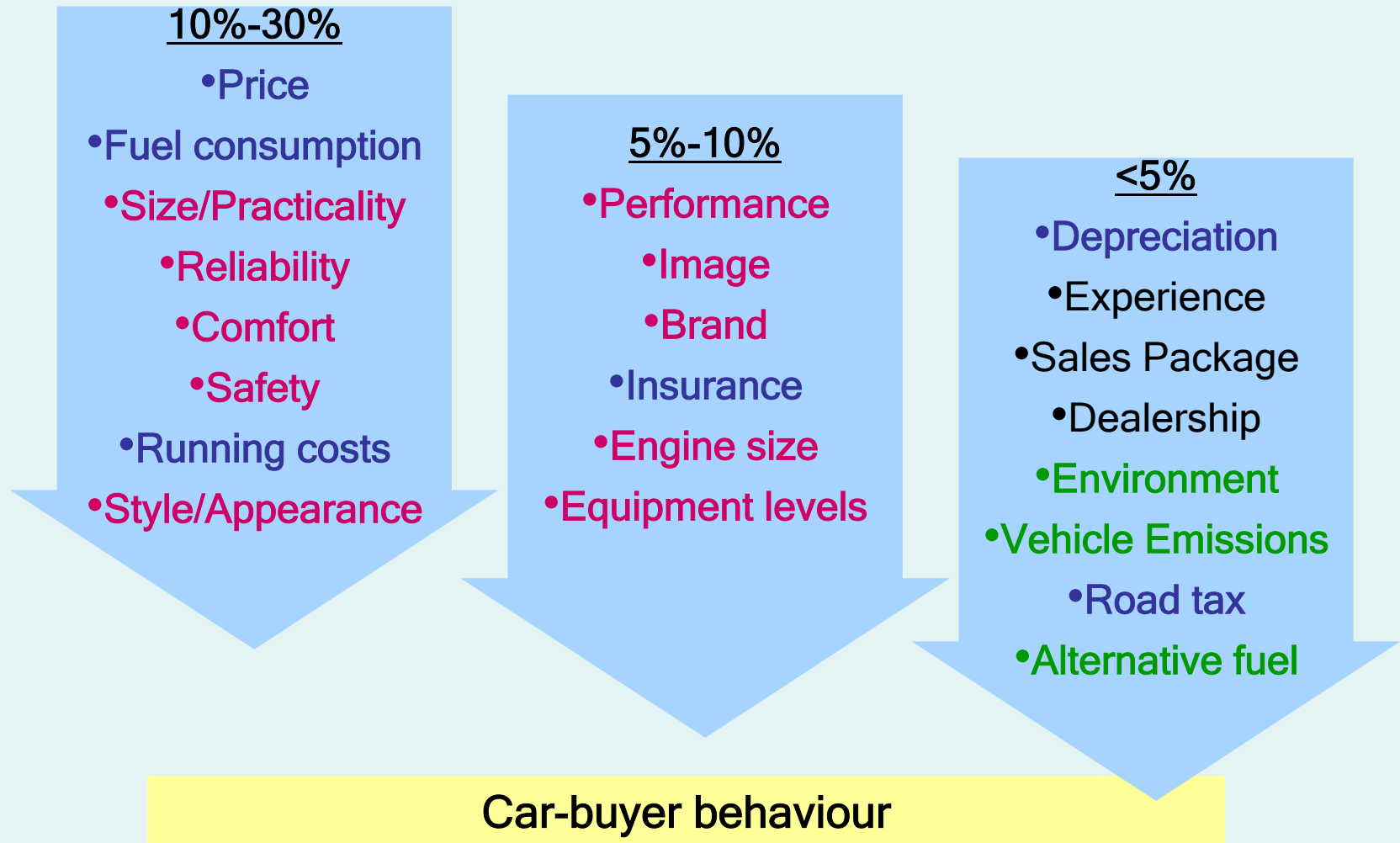
Sources:

HMG 2004, Review of the UK climate change programme

Energy Savings Trust, IEEP, 2004, CO2 emissions and vehicle excise duty

SMMT 2005, UK new Car Registrations by CO2 Performance

Emissions are a low priority for most new (private) car buyers



What can we expect from the new Government to tackle climate change?

- ❑ Progress towards 20% CO2 reduction by 2010 and 60% by 2050
- ❑ International leadership through the G8 at EU presidencies
- ❑ Climate change central to energy policy
 - Diverse energy supply
- ❑ Revised climate change programme – summer 05
 - Focus upon energy efficiency – especially in buildings
 - Further support for green technologies and industries
 - Efforts to include aviation within the EU ETS
 - Increased role for Local Government?



Proposals for tackling road transport emissions

☐ **Reduced vehicle emissions**

- “Examination of the scope for further economic instruments & other measures to promote lower vehicle emissions”
- “Support for low carbon vehicle technologies”

☐ **Low carbon / alternative fuels**

- Proposed Renewable Transport Fuels Obligation

☐ **Reduced vehicle use**

- £180Bn investment in transport to 2015 including rail, light rail and public transport
- Car pool lanes and better management of road space
- Innovative school transport
- Greater opportunity for local authority management of buses
- Expanded capacity on the M1, M6 and M25

☐ **Better freight distribution**

- Lorry user charging

☐ **Improved driver behaviour**

Conclusions

- ❑ Manifesto recommits new Government to GHG reduction targets
- ❑ Strong focus on achieving an international scientific consensus with G8 / EU Presidencies
- ❑ Range of new policies anticipated within new Climate Change Programme likely to focus upon -
 - Diversifying renewable / low carbon energy supply
 - Energy efficiency – especially in buildings
 - Support for “green” technologies
 - Increased role for the public sector
- ❑ Stronger policy measures needed to reduce road transport emissions and achieve Powering Future Vehicles Strategy targets
- ❑ Willingness to introduce effective economic instruments to stimulate demand for low carbon technologies is uncertain

The Low Carbon Vehicle Partnership

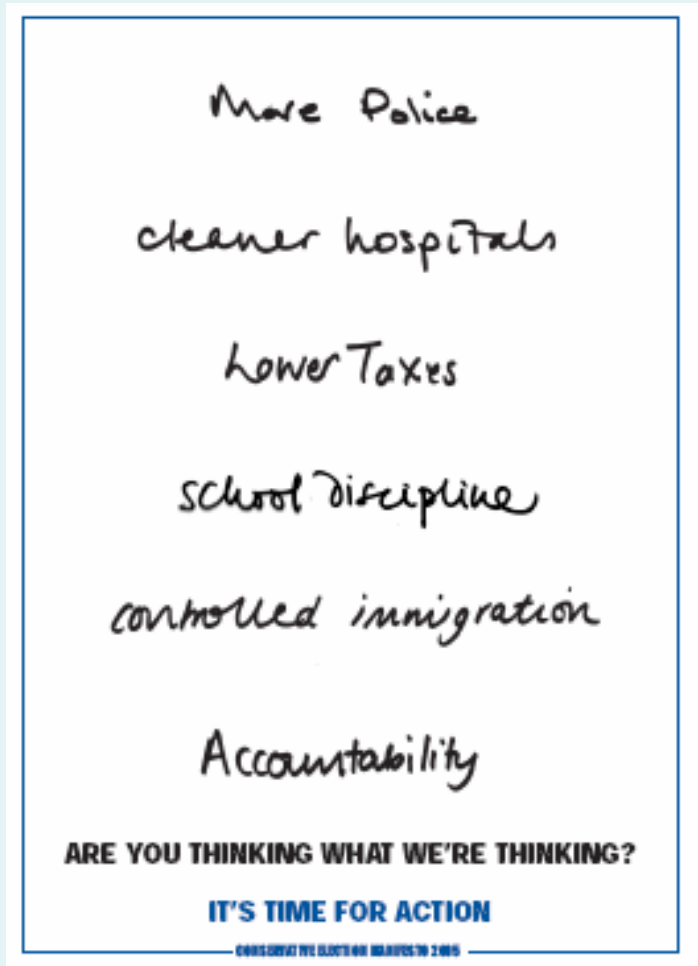
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What can we expect from the new Government to tackle climate change?

- ☐ Phase out the use of hydrofluorocarbons (HFCs)
- ☐ Action plan to achieve 2010, 2020 and 2050 targets
- ☐ Lead by example through Government procurement and property management policies
- ☐ Reform the Energy Efficiency Commitment lined to abolition of the Climate Change Levy
- ☐ Improved building regulations
- ☐ Revision of the Renewables Obligation
- ☐ Support for micro-generation
- ☐ Include aviation within the EU ETS
- ☐ Better consumer information for aircraft passengers



Conservative policy is to provide added incentives to drivers to reduce road transport CO2 emissions

- ❑ Cut Vehicle Excise Duty on the least polluting new cars
- ❑ Colour code tax discs to show the carbon emissions category of each vehicle
- ❑ Double the grants available to help purchasers of leading edge low emission cars and for fitting emission reducing equipment to other cars
- ❑ Stimulate a viable UK industry in biofuels through duty rebates and a renewable fuel obligation
- ❑ Promote an EU voluntary agreement to reduce emissions on new LGVs and HGVs