

# What next to tackle climate change?

**Environmental Expo Conference**

**7<sup>th</sup> May 2005**

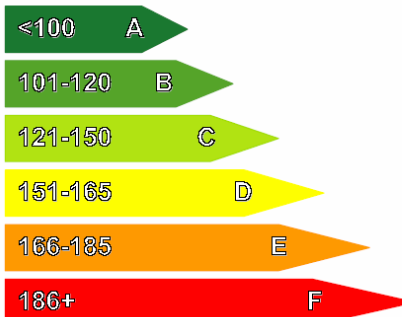

**Greg Archer**

**Director Low Carbon Vehicle Partnership**

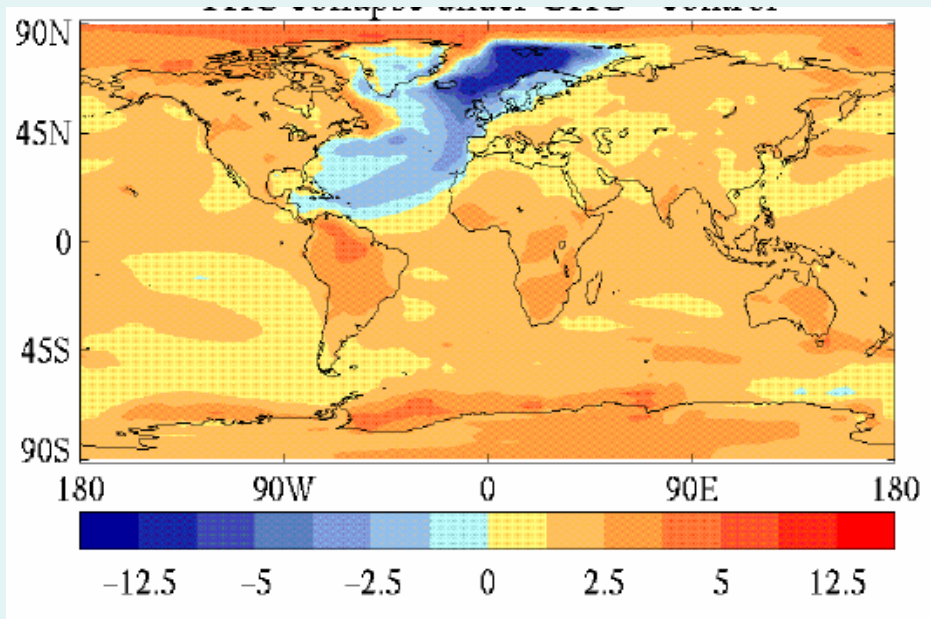
# Low Carbon Vehicle Partnership

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

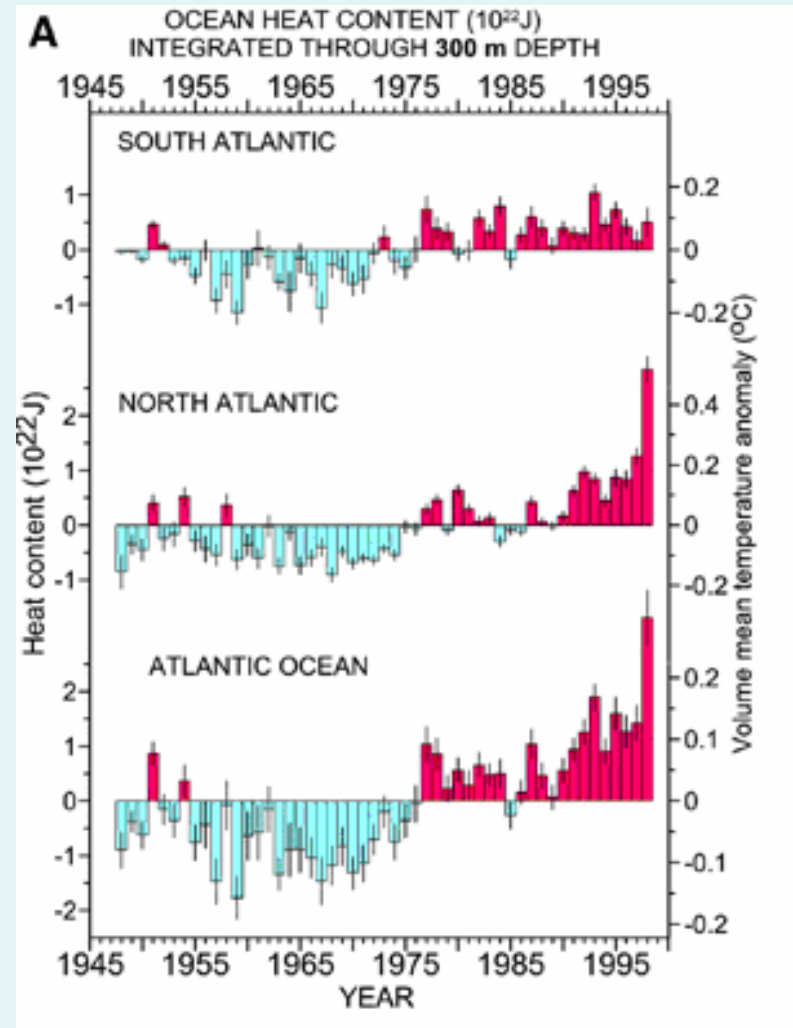
*Stimulating opportunities for UK businesses*

<b>Fuel Economy</b>		Ford Fiesta 1.4 TDCi ZETEC
<b>CO<sub>2</sub> emission figure (g/km)</b> 		<b>B</b> 117 g/km
<b>Fuel cost (estimated) for 12,000 miles</b> <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>		
<b>VED for 12 months</b> <small>Vehicle excise duty (VED) or road tax varies according to the CO<sub>2</sub> emissions and fuel type of the vehicle.</small>		<b>£85</b>
<b>Environmental Information</b> <small>A guide on fuel economy and CO<sub>2</sub> 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 CO<sub>2</sub> emissions. CO<sub>2</sub> is the main greenhouse gas responsible for global warming.</small>		
<b>Make/Model</b> Ford Fiesta 1.4 TDCi ZETEC	<b>Fuel type</b> Diesel	<b>Engine capacity (cc):</b> 1399 <b>Transmission type:</b> 5 speed manual
<b>Fuel Consumption:</b>		
<b>Drive cycle</b>	<b>Litres/100km</b>	<b>Mpg</b>
Urban	5.4	52.3
Extra-urban	3.8	74.3
Combined	4.4	64.2
<b>Carbon dioxide emissions (g/km):</b> 117g/km <b>Important note:</b> Some specifications of this make/model may have lower CO <sub>2</sub> emissions than this. Check with your dealer.		
		

*Growing evidence indicates the oceans are influenced by climate change – with potentially extreme consequences*

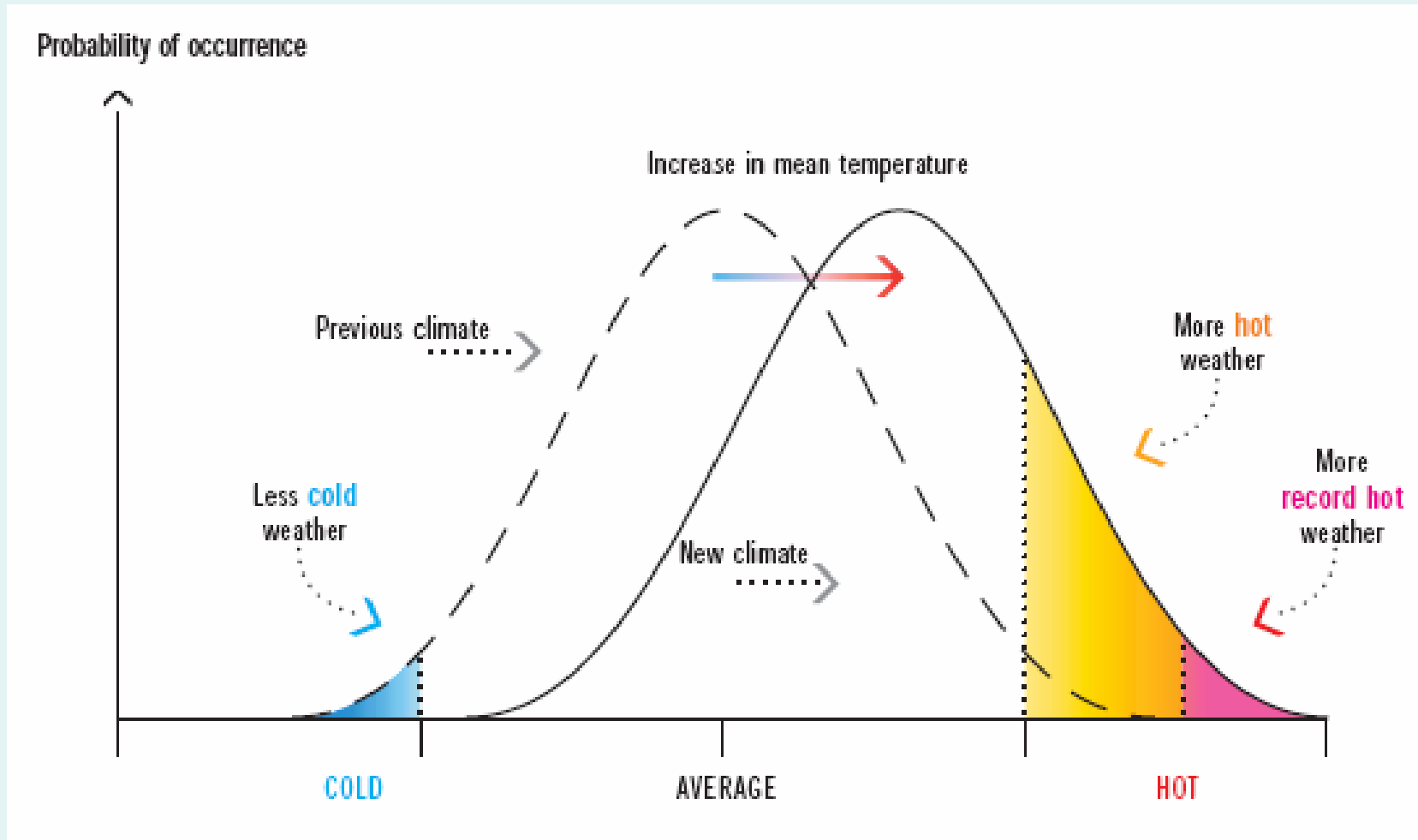


[http://www.stabilisation2005.com/33\\_Richard\\_Wood.pdf](http://www.stabilisation2005.com/33_Richard_Wood.pdf)

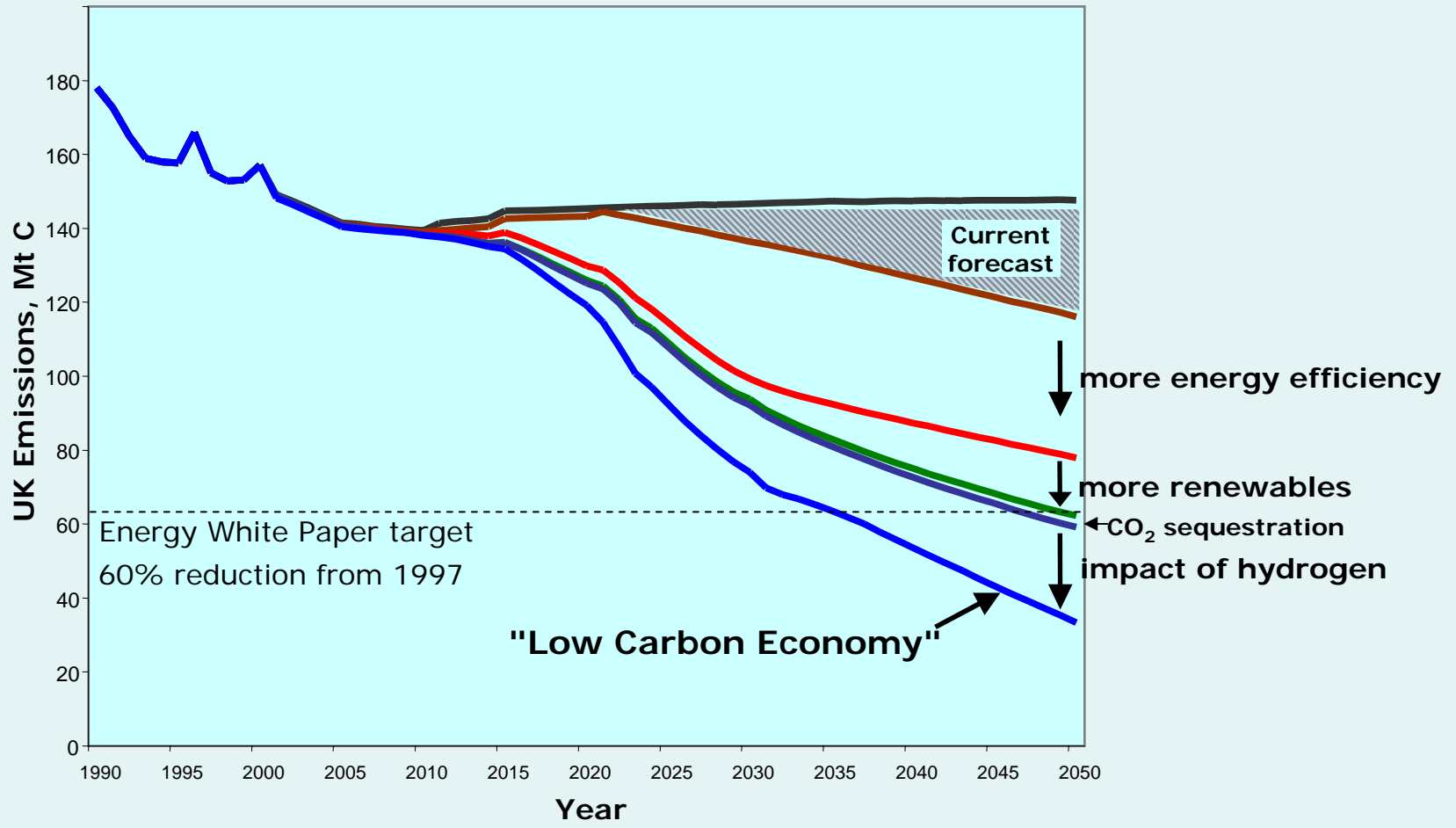


[http://www.sciencemag.org/feature/data/1046907s1\\_large.jpeg](http://www.sciencemag.org/feature/data/1046907s1_large.jpeg)

*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*



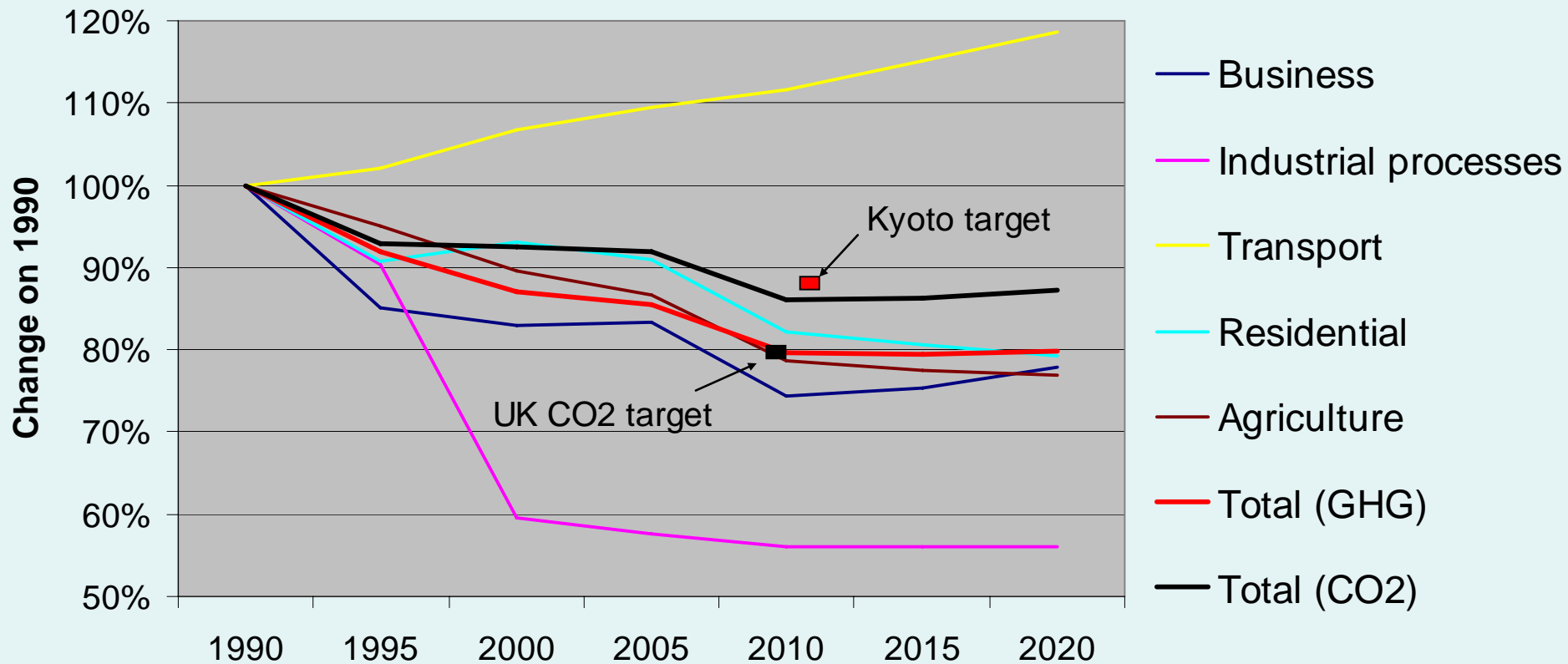
# *Delivering a low carbon economy requires a stronger focus on addressing non-technical barriers*

- ❑ 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*

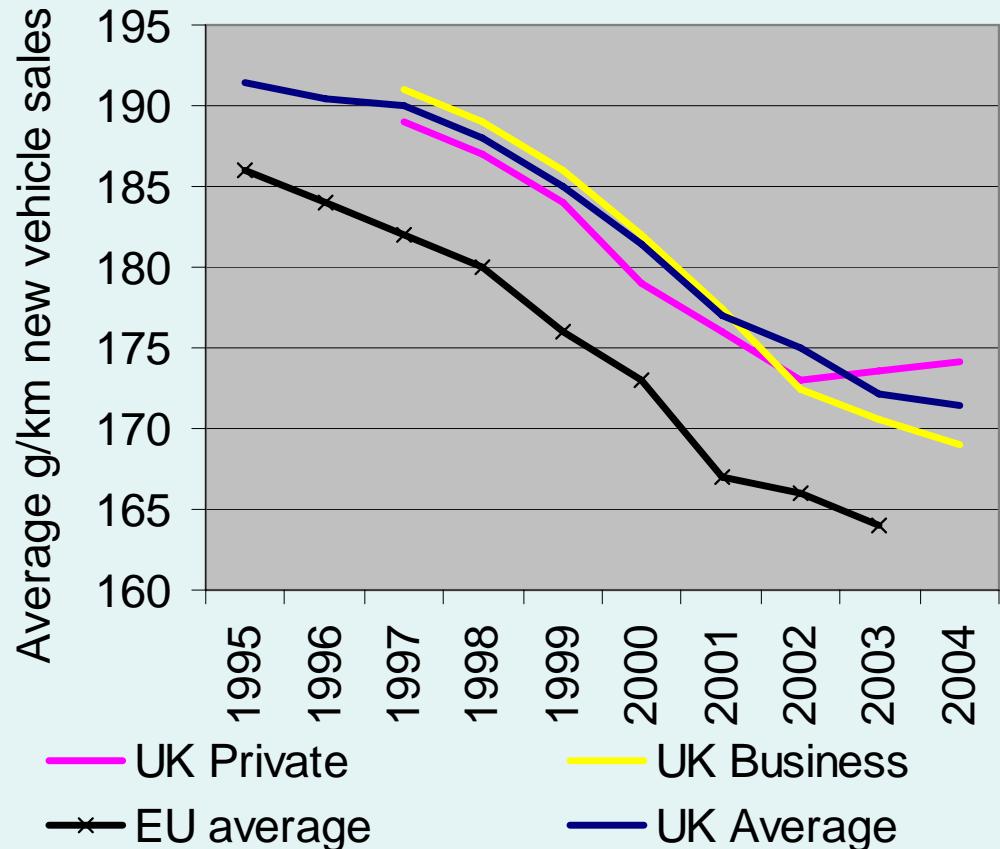
### Powering Future Vehicle Targets

□ 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:

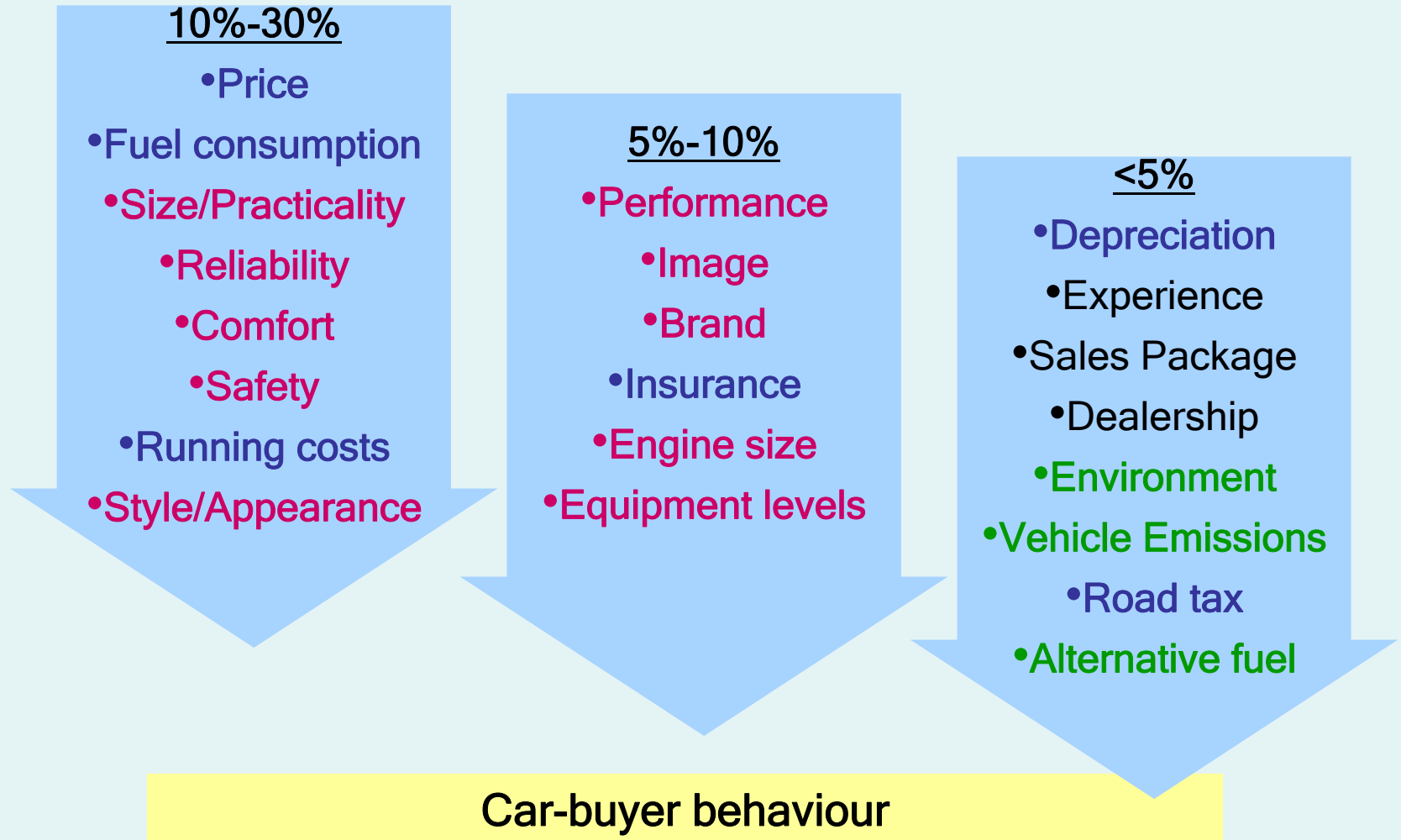
HMG 2004, Review of the UK climate change programme

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 recommitting 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

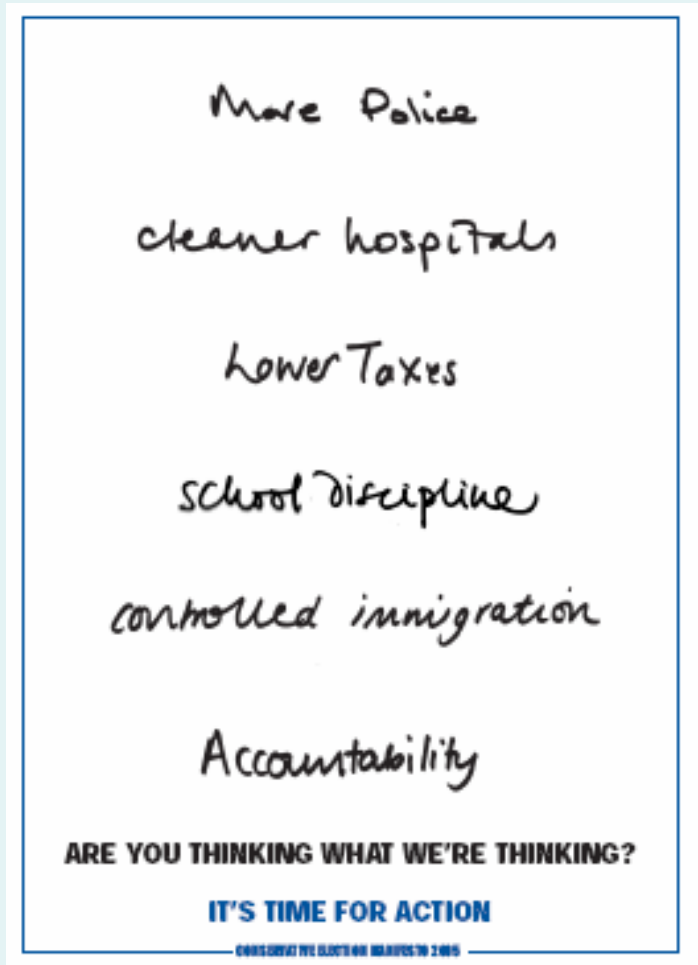
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# *What can we expect from the new Government to tackle climate change?*

- 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