

*Road User Charging –
Opportunity and Threat to Reducing CO2
emissions*

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Low Carbon Vehicle Partnership

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

Stimulating opportunities for UK businesses

- Facilitate cross-sectoral engagement between industry and other stakeholders
- Encourage research, demonstration and commercialisation of low carbon automotive technologies in the UK and assist UK businesses participate in emerging markets
- Contribute towards the setting, and achievement, of UK Government's targets for carbon reduction from the road transport sector
- Deliver an effective flow of information within and between industry and other stakeholders

LowCVP membership and activities

□ Industry initiatives

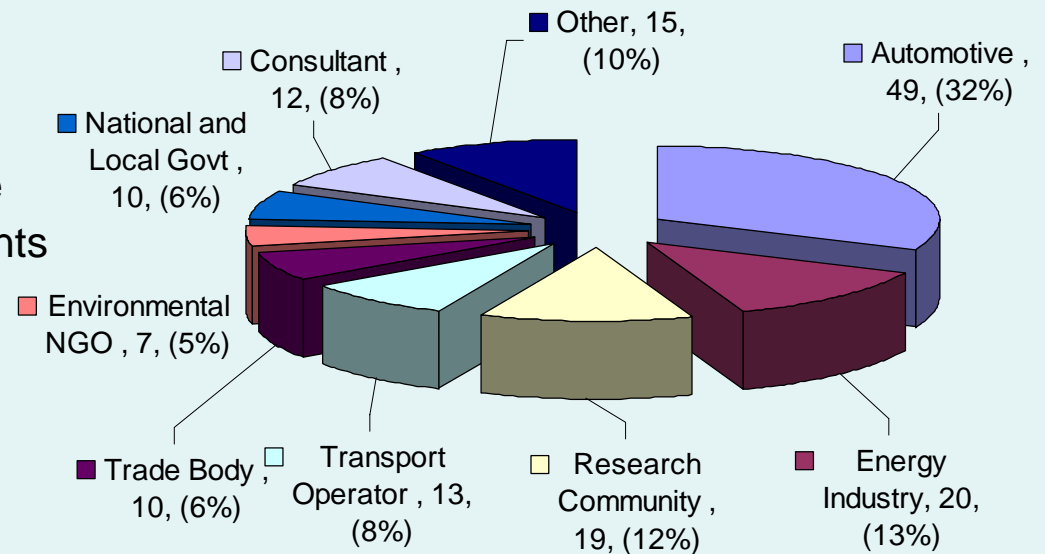
- Biofuels assurance
- Car label

□ Advice to Government

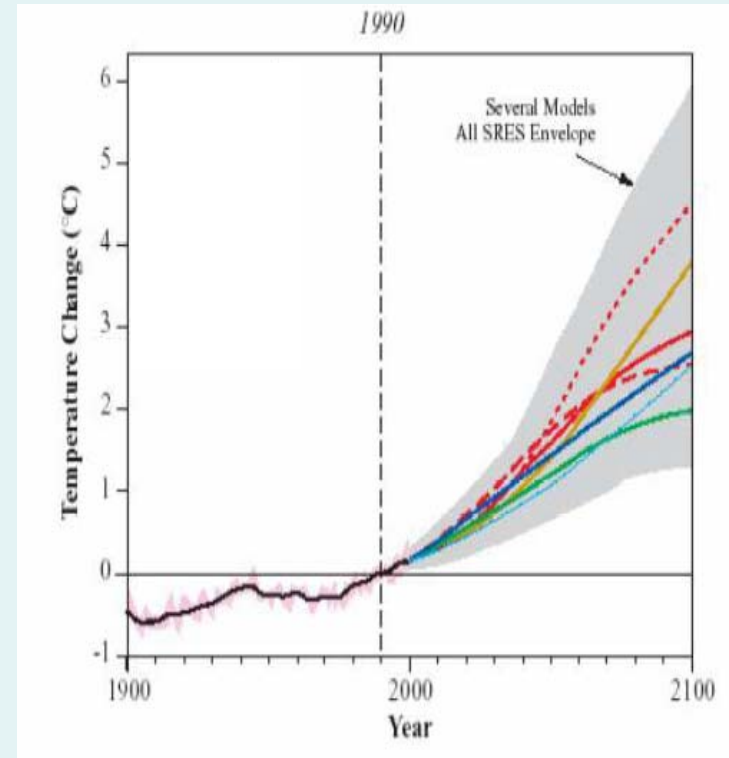
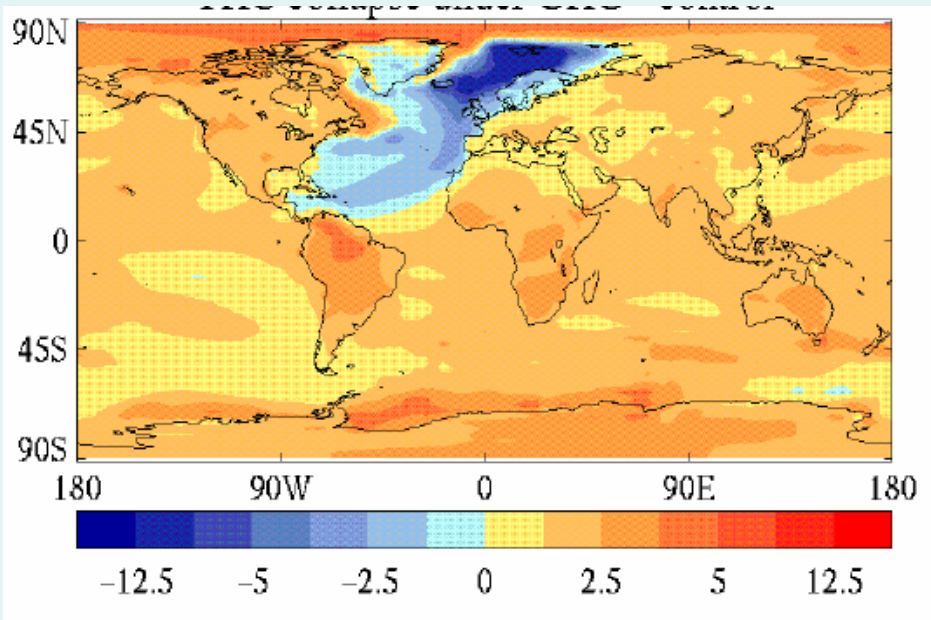
- Testing of low carbon buses
- TransportEnergy programme
- Future of voluntary agreements
- RTFO Assurance Feasibility Study
- Climate Change Programme Consultation workshops

□ Research

- Car buying behaviour
- R&D agenda for Cenex
- Environmental impacts of biofuels

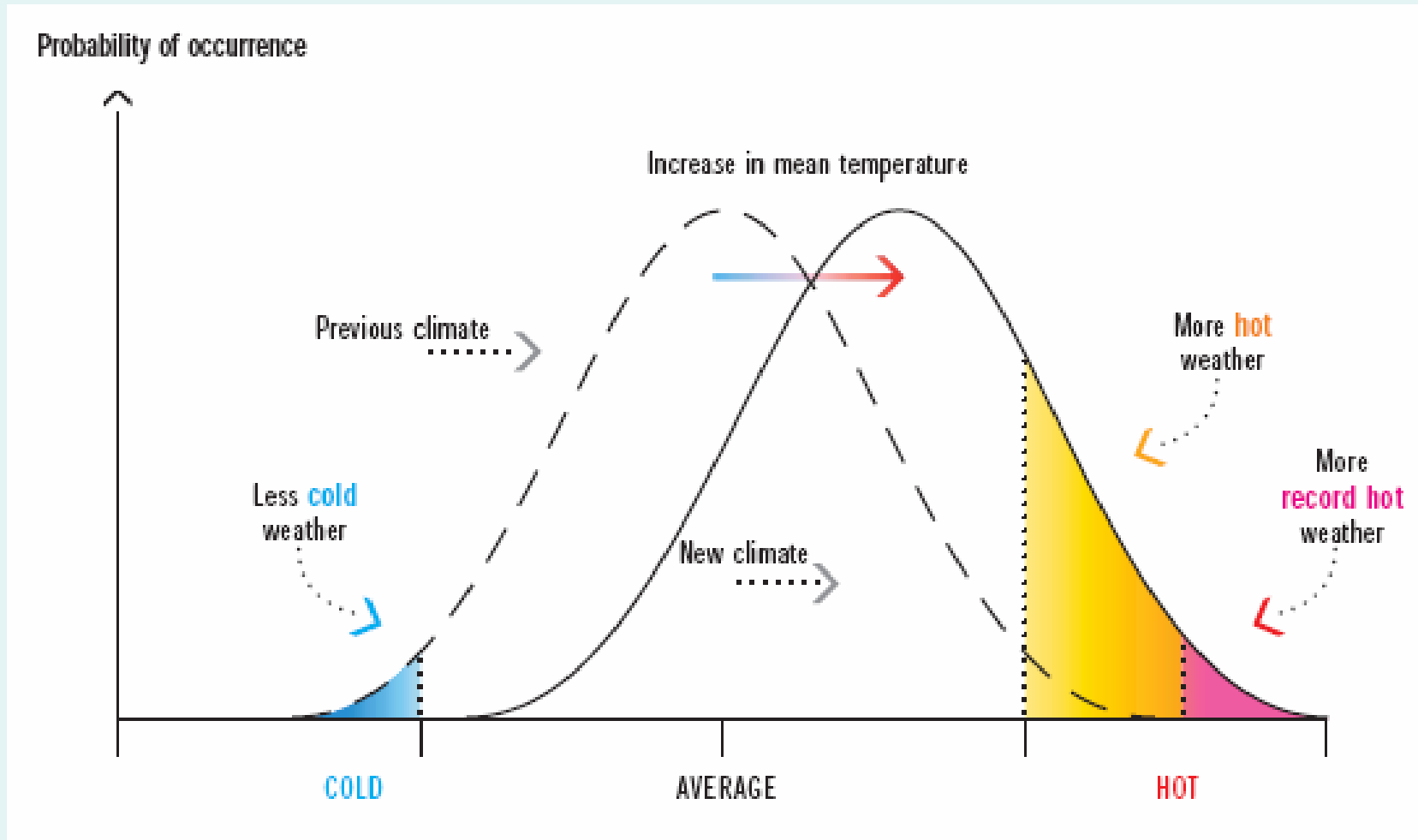


Global climate change is accelerating with potentially profound consequences for human society and biodiversity



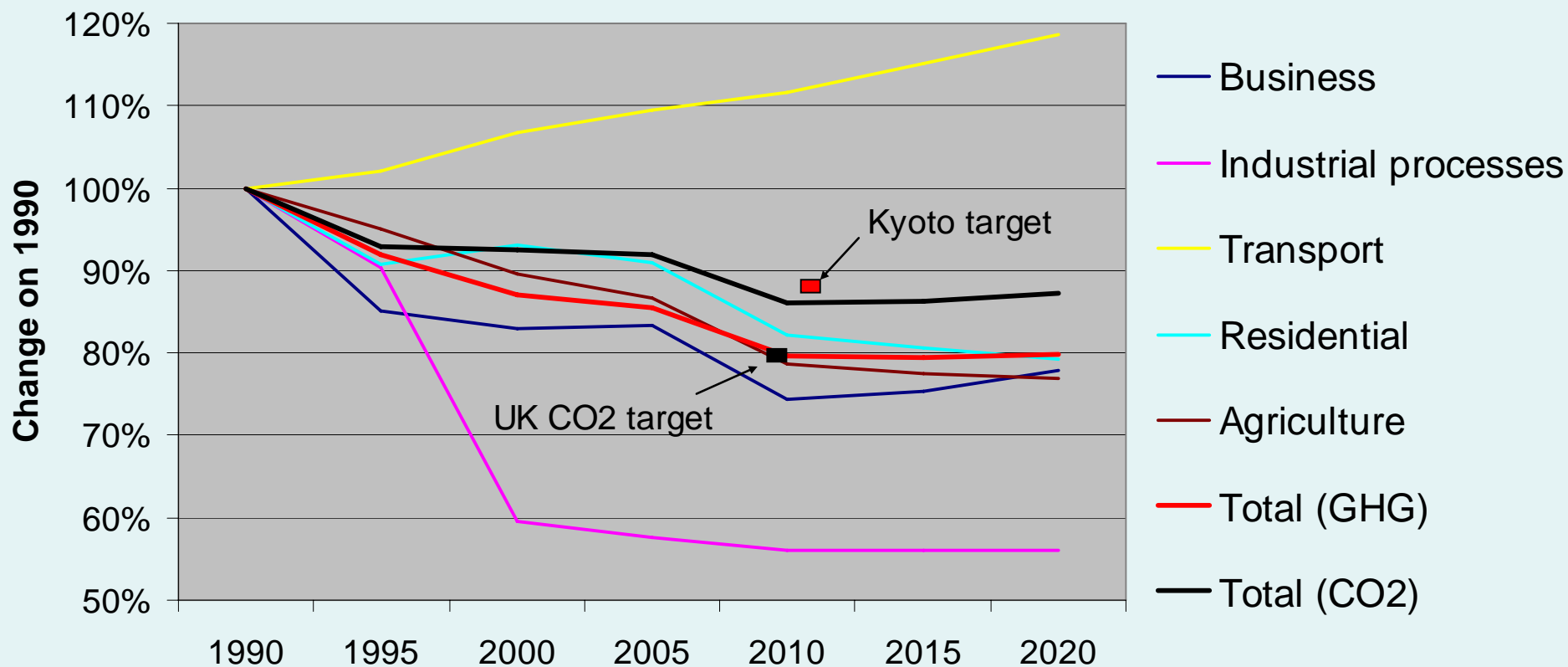
http://www.stabilisation2005.com/33_Richard_Wood.pdf

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



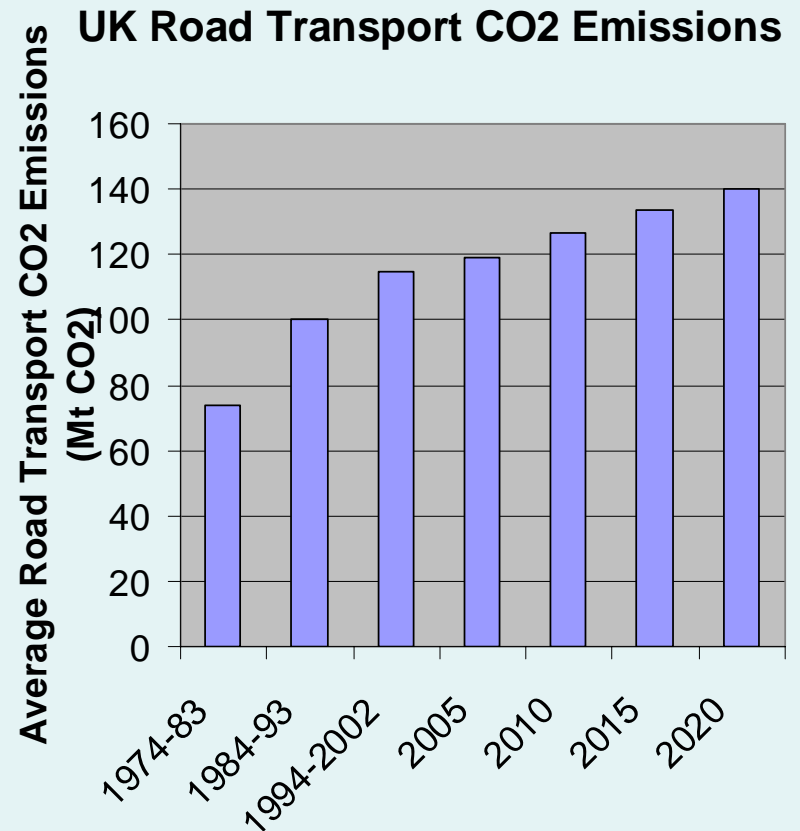
UK has achieved its Kyoto target, but without new initiatives will miss our domestic CO2 target

Changes in UK GHG emissions by principal end user sectors



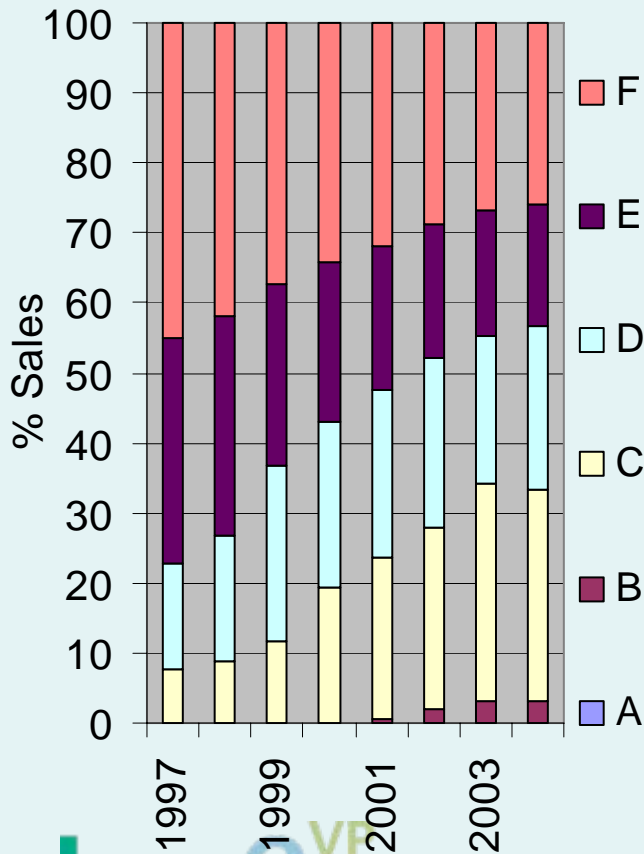
Reducing road transport emissions will require a combination of measures

- Reduced vehicle emissions
- Low carbon / alternative fuels
- Improved driver behaviour
- Reduced vehicle use
- Better freight distribution

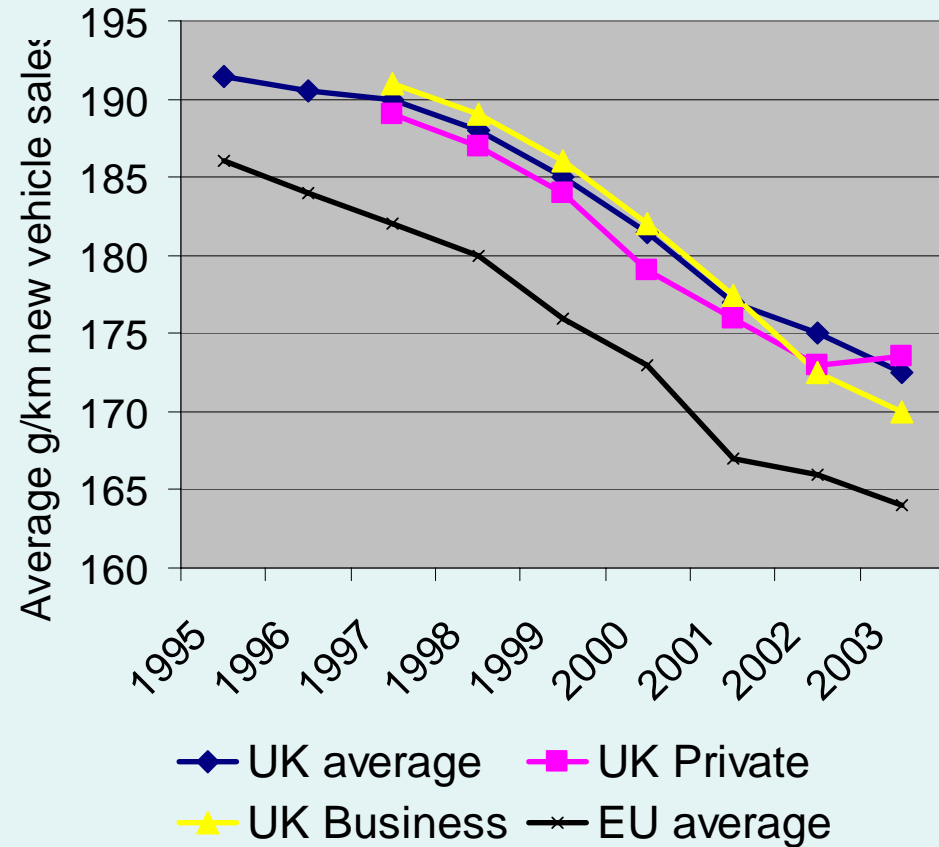


The market for environmentally friendly vehicles is small and incentives for consumers limited

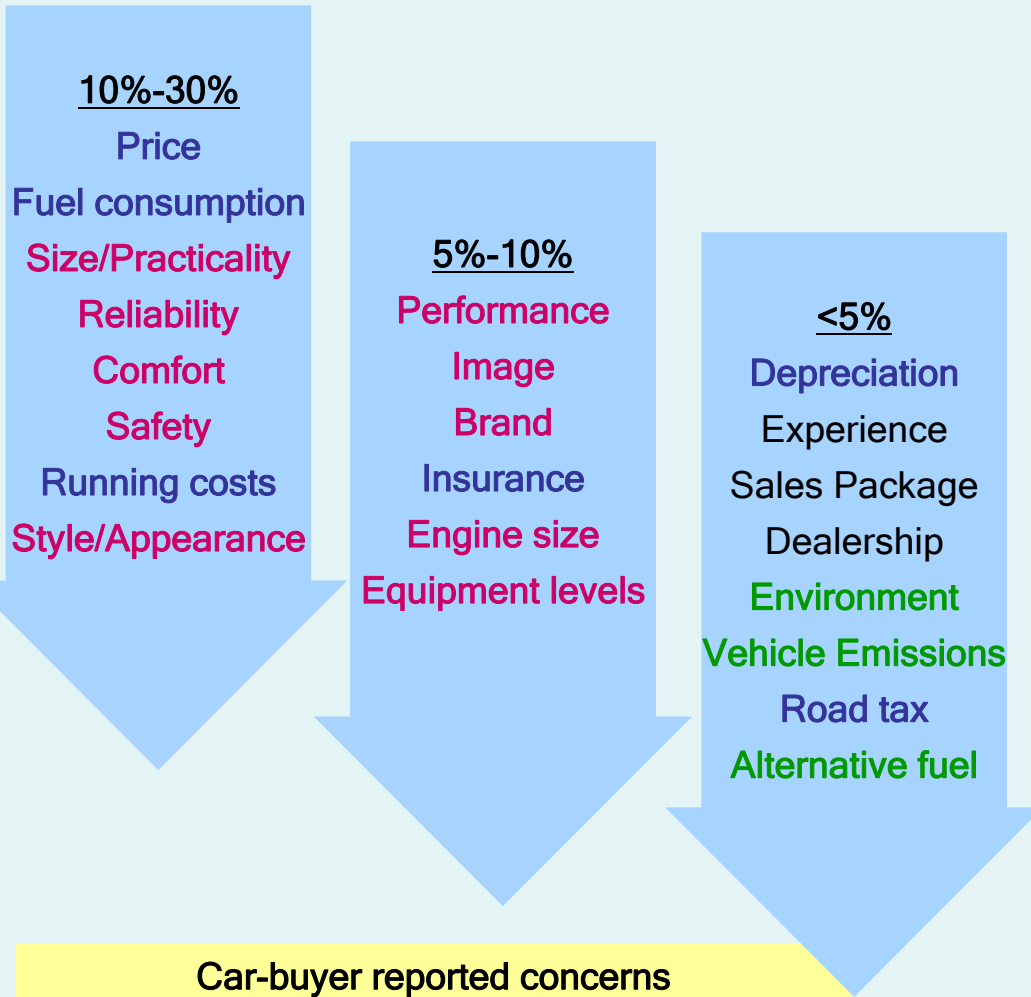
New car sales by VED Band



Fleet average emissions for new vehicle sales



Environmental concerns are a low priority for most private car buyers



❑ Whilst mpg is reported as a key decision making factor there is little evidence to demonstrate this

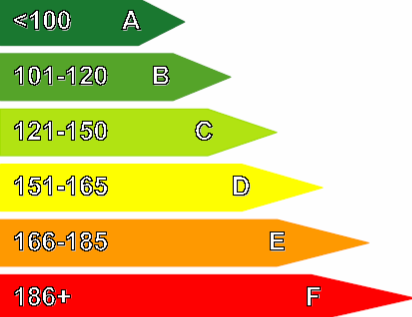

❑ Motorists have a poor understanding of vehicle running costs and will bear additional annual costs of £1-1.5k before considering downsizing their vehicles

❑ Public understanding of vehicle emissions and new technology is very limited

❑ Whilst motorists are concerned about climate change few understand its causes and less take personal responsibility

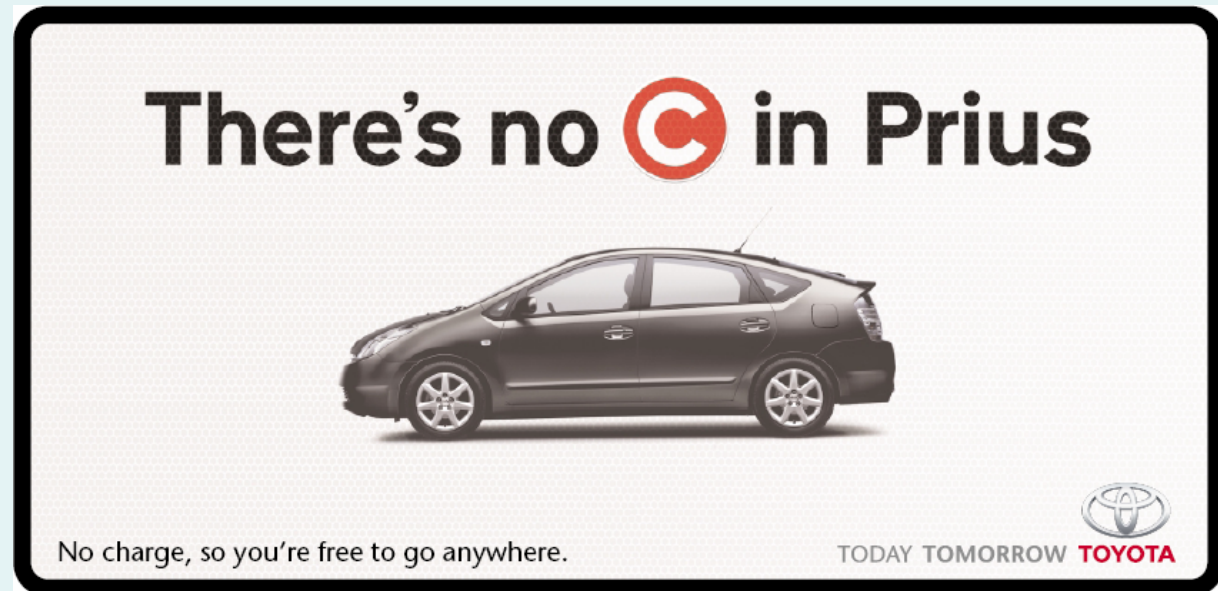
Voluntary car labelling scheme


- ❑ Voluntary automotive industry initiative – brokered by LowCVP
- ❑ Scheme to be launched in July 2005 – ahead of EU scheme
- ❑ Fully operational by September 2005
- ❑ Bands linked to UK Vehicle Excise Duty CO2 categories
- ❑ Consistent with European Energy Efficiency labels (e.g., fridges)


Fuel Economy		Ford Fiesta 1.4 TDCi ZETEC
CO₂ emission figure (g/km) 		B 117 g/km
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		
<small>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.</small>		
Make/Model Fuel type	Ford Fiesta 1.4 TDCi ZETEC 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.		
		

London Congestion Charging scheme allows exemptions for clean vehicles


- ❑ Vehicles registered under the EST PowerShift Programme
- ❑ Alternatively fuelled or powered vehicles
 - NGV
 - LPG
 - Hybrid vehicles
 - Electric vehicles
- ❑ TfL currently considering options for future exemptions or discounts




There's no  in Prius



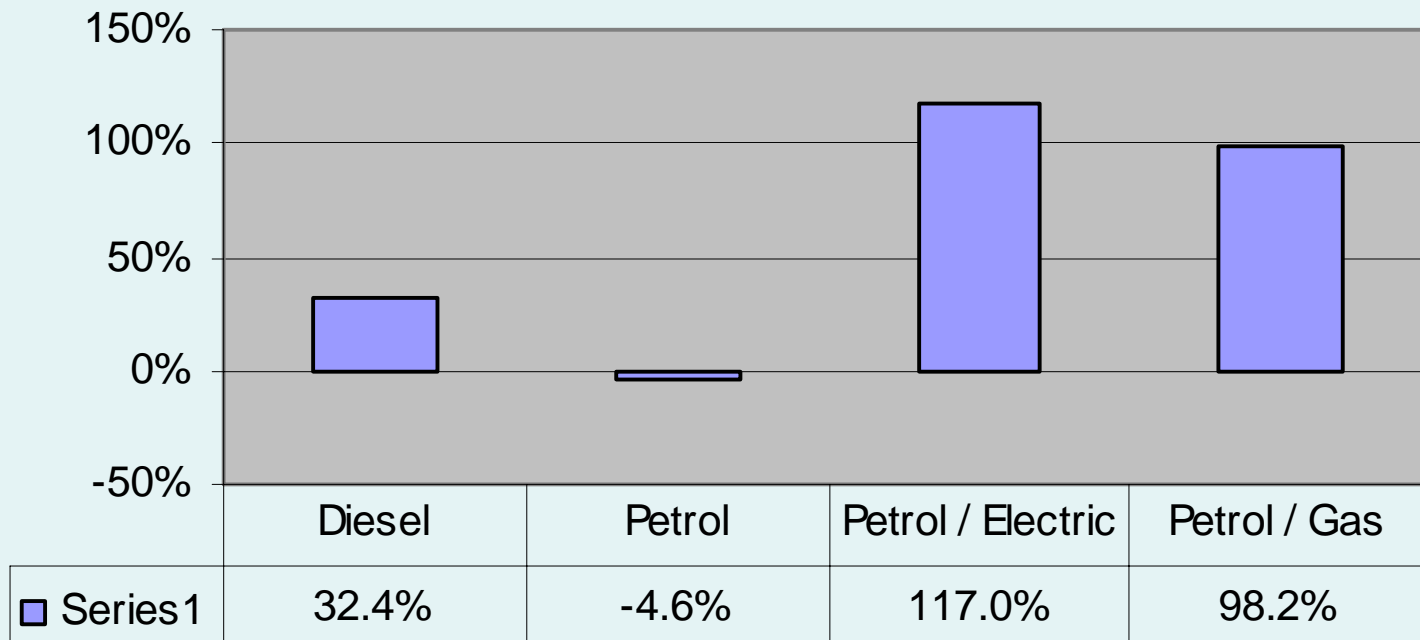
No charge, so you're free to go anywhere.

TODAY TOMORROW  **TOYOTA**

The advertisement features a dark grey Toyota Prius shown in profile. The text 'There's no  in Prius' is prominently displayed at the top. Below the car, the slogan 'No charge, so you're free to go anywhere.' is written. In the bottom right corner, the Toyota logo is accompanied by the text 'TODAY TOMORROW TOYOTA'.

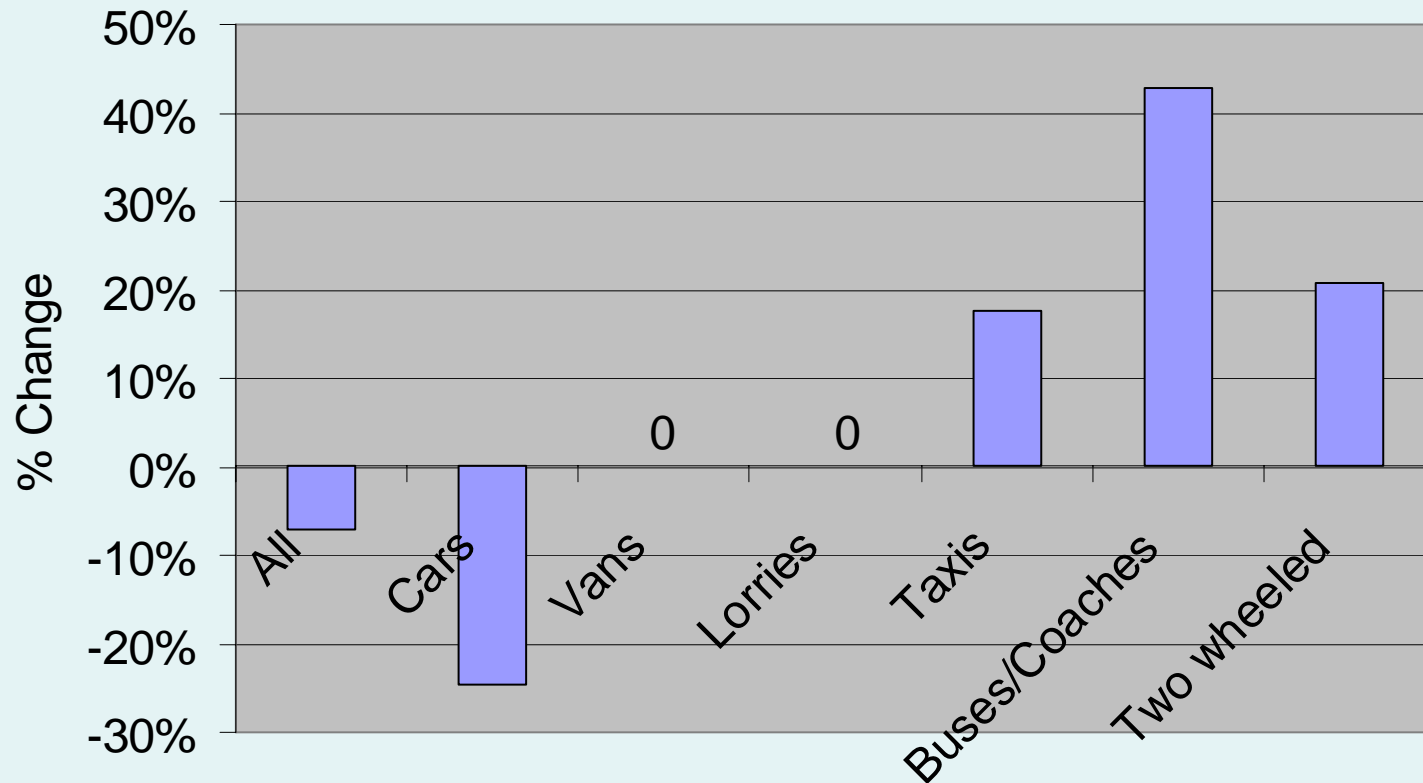
Availability of congestion charge exemptions increased AFV registrations in London

Registrations in the London Area: Change after one year of Congestion Charge



London Congestion Charge also led to a 19% reduction CO2 emissions with the charge area

**% Change km driven within zone
and on ring-road during charging hours**



Options for exemption / discount schemes to encourage environmentally friendly vehicles

❑ Encourage low carbon vehicles

- Based on VED Classifications (e.g.,)
- Few qualifying vehicles (Band A)
- Band B c1% fleet

❑ Encourage clean vehicles

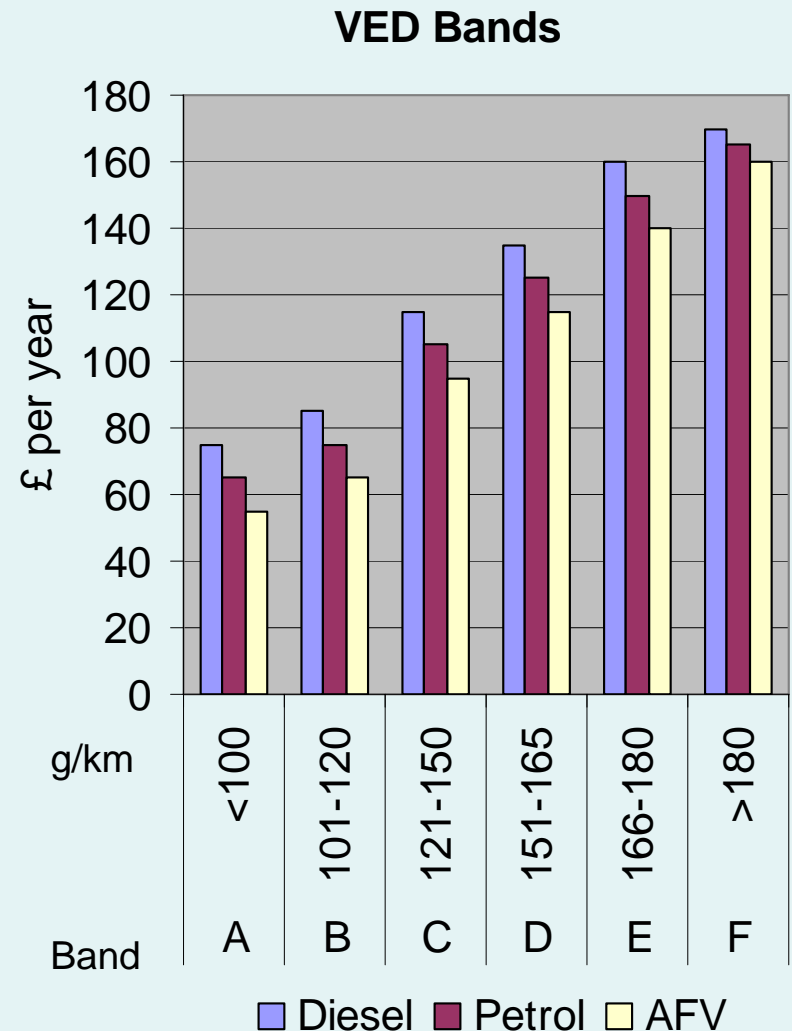
- e.g., Euro 5
- Few qualifying vehicles

❑ Encourage environmentally friendly vehicles – link to proposed Grant Schemes

- e.g., <115g/km + Euro 5
- Few qualifying vehicles

❑ Encourage alternative fuel vehicles

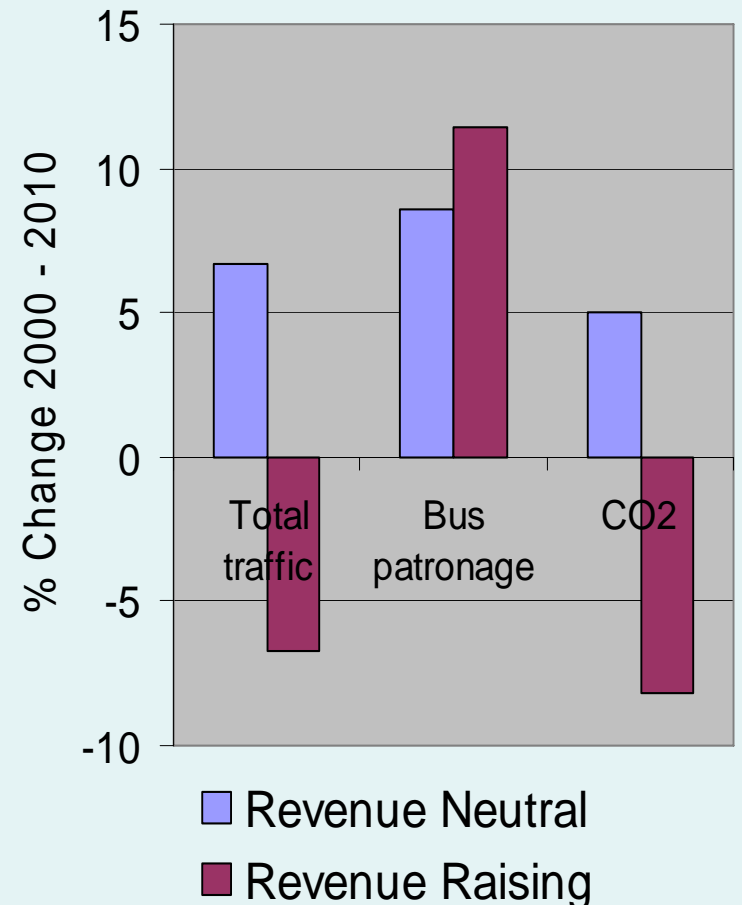
- As for Powershift



How national congestion charging is implemented will affect CO2 emissions

- ❑ How congestion charging influences motoring costs will significantly effect CO2 emissions
- ❑ ippr study (2003) - revenue neutral road user charging may lead to increases in road transport CO2
- ❑ Congestion charging ensures costs relate to specific journeys and may encourage responsible vehicle use and enable greater fuel efficiency
- ❑ Linking CO2 emissions (VED) to charges would incentivise low carbon vehicles
 - Failure to do so results in similar costs for driving a Smart and Hummer!

Impact of Road User Charging



Summary

- ❑ Additional incentives are needed to encourage purchase of low carbon vehicles
- ❑ Environmental concerns are a low priority for car buyers; fuel economy does not figure highly in final decision making
- ❑ Exemptions or differential costs for low carbon vehicles provide a powerful incentive for purchase
- ❑ Congestion and road user charging can achieve significant CO₂ reductions – but probably only if they result in higher driving costs



Thank you

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