

# Developing the market for low carbon cars

**Sustainable Energy in Irish Transport**  
**23<sup>rd</sup> November 2005**

**Greg Archer**  
**Director**  
**Low Carbon Vehicle Partnership**

# *Low Carbon Vehicle Partnership*

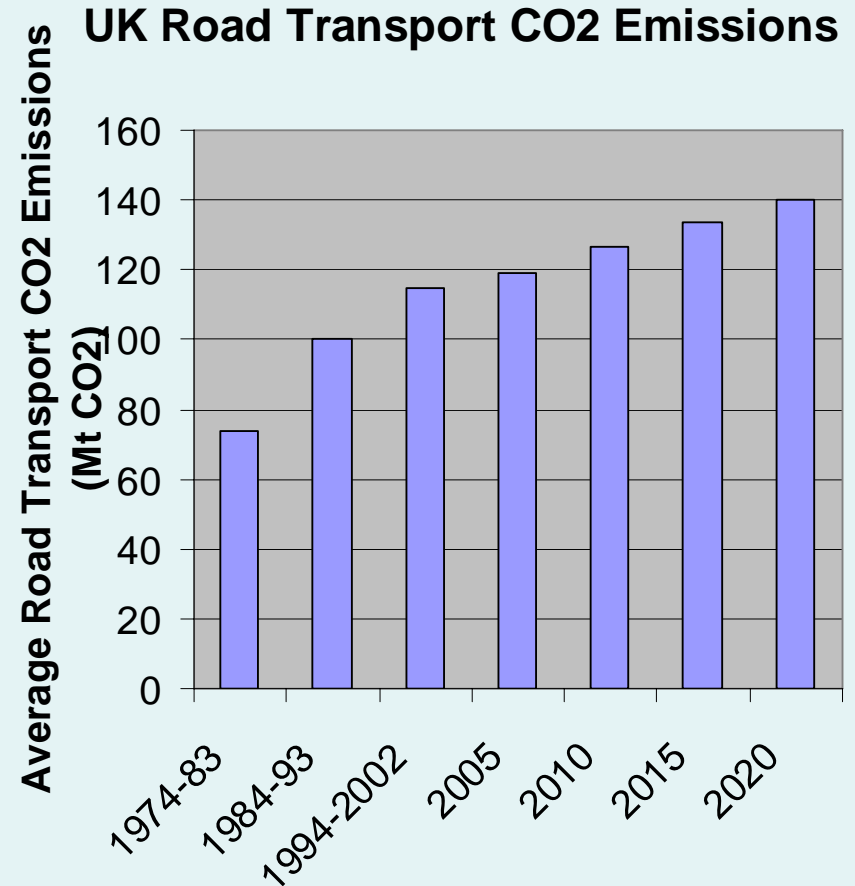
*Accelerating a sustainable shift to low carbon vehicles and fuels in the UK*

*Stimulating opportunities for UK businesses*



# Scope

- The role of partnership in formulating policy
- The challenge of changing consumer attitudes
- UK Policies and progress
- Potential policy options for Eire



# *Environmental concerns are a low priority for most private car buyers*

## Car-buyer reported concerns

### Top priorities

Price  
Fuel consumption  
Size/Practicality  
Reliability  
Comfort  
Safety  
Running costs  
Style/Appearance

### Some influence

Performance  
Image  
Brand  
Insurance  
Engine size  
Equipment levels

### Low priorities

Depreciation  
Experience  
Sales Package  
Dealership  
Environment  
Vehicle Emissions  
Road tax  
Alternative fuel

- mpg is reported as a key decision-making factor – but little evidence
- Poor understanding and high tolerance of running costs
- Little knowledge of emissions and new technology
- Public concern about climate change – but few understand the causes and less take personal responsibility

# Consumer information improved

- ❑ Voluntary car industry initiative
  - brokered by LowCVP
  
- ❑ Combination of simple and statutory information:
  - Label shows CO2 emissions, estimated fuel costs and test cycle data
  
- ❑ Bands linked to UK Vehicle Excise Duty
  
- ❑ Labels presently in 75% of showrooms

<b>Fuel Economy</b>		Ford Fiesta 1.4 TDCi ZETEC
<b>CO<sub>2</sub> emission figure (g/km)</b> 		<b>B 117 g/km</b>
<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 36p (VCA May 2004).</small>		<b>£662</b>
<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.		

*Some vehicle manufacturers and fuel companies are actively promoting low carbon options*



**Switch on  
to lower  
carbon  
emissions.**

Cleaner power stations are vital to meet demand for energy and help meet Kyoto targets. BP is leading plans with its partners to develop a power station in Scotland to run on hydrogen. This would produce electricity with 90% lower carbon emissions for 250,000 homes.

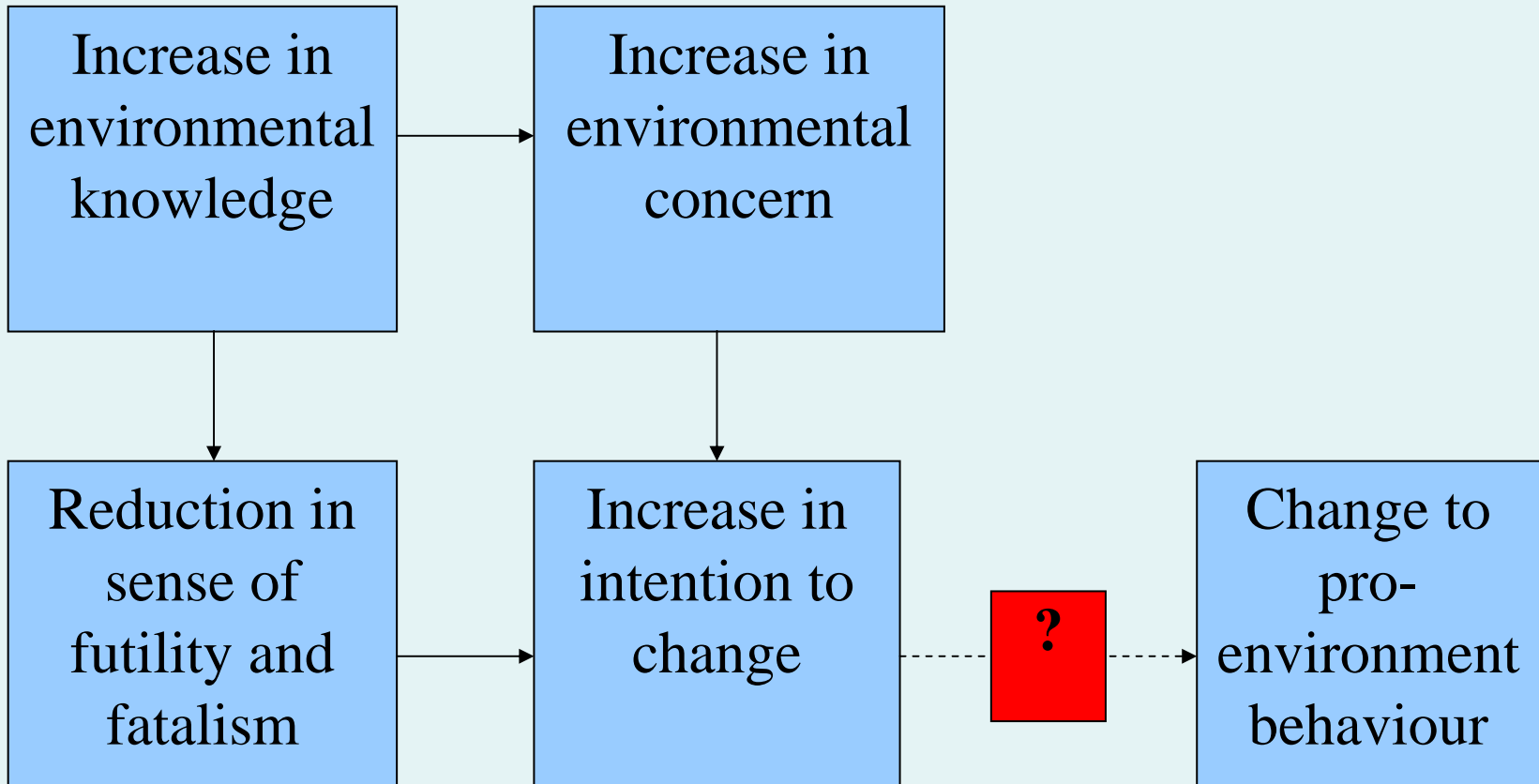


beyond petroleum™

Find out more by visiting [bp.com/decarbonisedfuels](http://bp.com/decarbonisedfuels)

**LowC<sup>VP</sup>**  
low carbon vehicle partnership

*Awareness raising will not alone bridge the attitude action gap and change consumer behaviour*

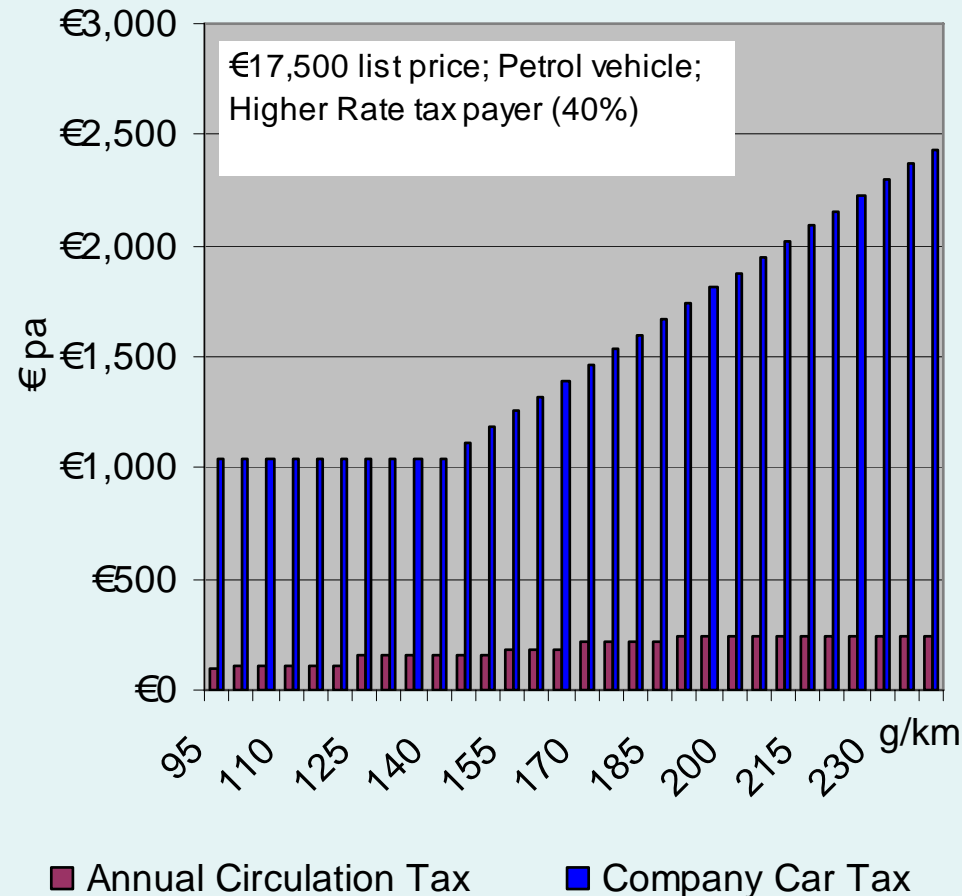




# UK car taxes are linked to CO<sub>2</sub> emissions

- Company Car Tax strongly linked to tail-pipe CO<sub>2</sub>
- Annual circulation taxes graduated in CO<sub>2</sub> bands
- No UK vehicle purchase taxes
- Purchase Grants for low carbon vehicles awaiting EU approval

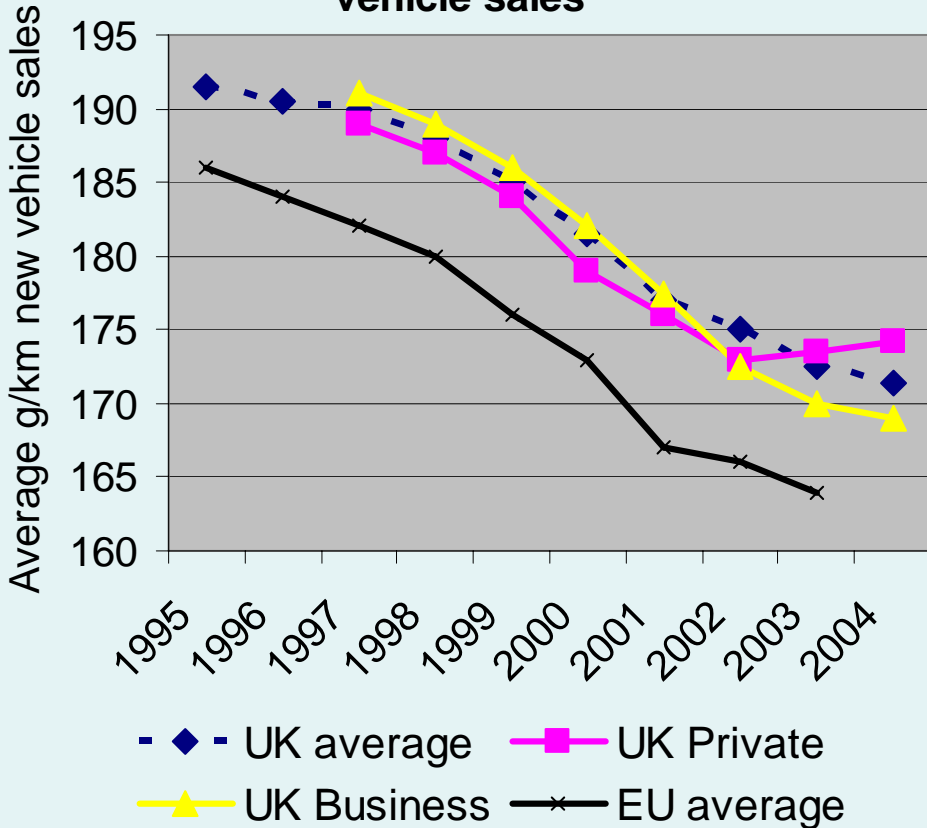
### Annual UK Vehicle Taxes





# *New cars are more efficient – but progress has stalled*

**Fleet average emissions for new vehicle sales**



□ New car CO<sub>2</sub> improved by 11% in 10 years

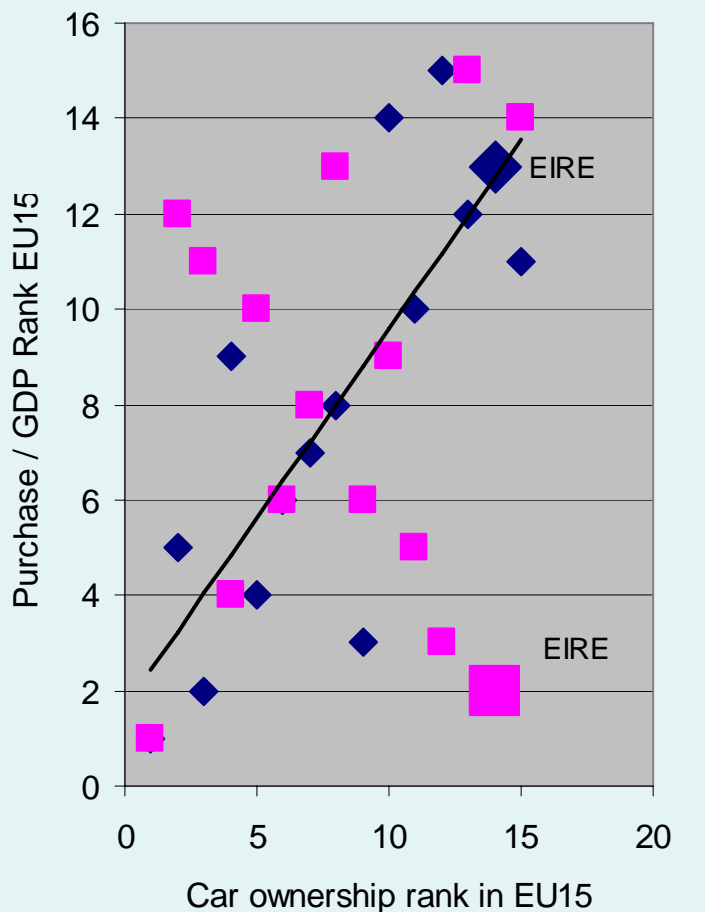
□ Fleet and business car efficiency is continuing to improve

□ Private consumers have started to purchase less efficient vehicles

□ UK target for 10% low carbon vehicles by 2012 unlikely to be met

□ Just 0.7% improvement in 2004

# Purchase taxes have a strong influence on car buying behaviour



◆ Purchase tax rank    ■ GDP per capita rank

□ Purchase taxes are strongly correlated with vehicle ownership

□ Irish taxes correlated with engine size not CO<sub>2</sub> emissions

□ Denmark and Netherlands have introduced purchase tax signals favouring small cars

□ Increasing interest in revenue neutral “feebate schemes” – tax reductions for low carbon vehicles funded by higher taxes for gas-guzzlers

□ EC supporting the removal of purchase taxes for market to harmonisation

*Congestion Charge discounts have stimulated the market for cleaner vehicles - other amenity benefits can also help*

- ❑ London Congestion Charge achieved a 20% CO<sub>2</sub> emissions reduction
- ❑ Registrations of alternative fuel vehicles with C-Charge discounts in London doubled - hybrids & LPG
- ❑ Proposed national road pricing may also influence CO<sub>2</sub>
  - +5% to -8%



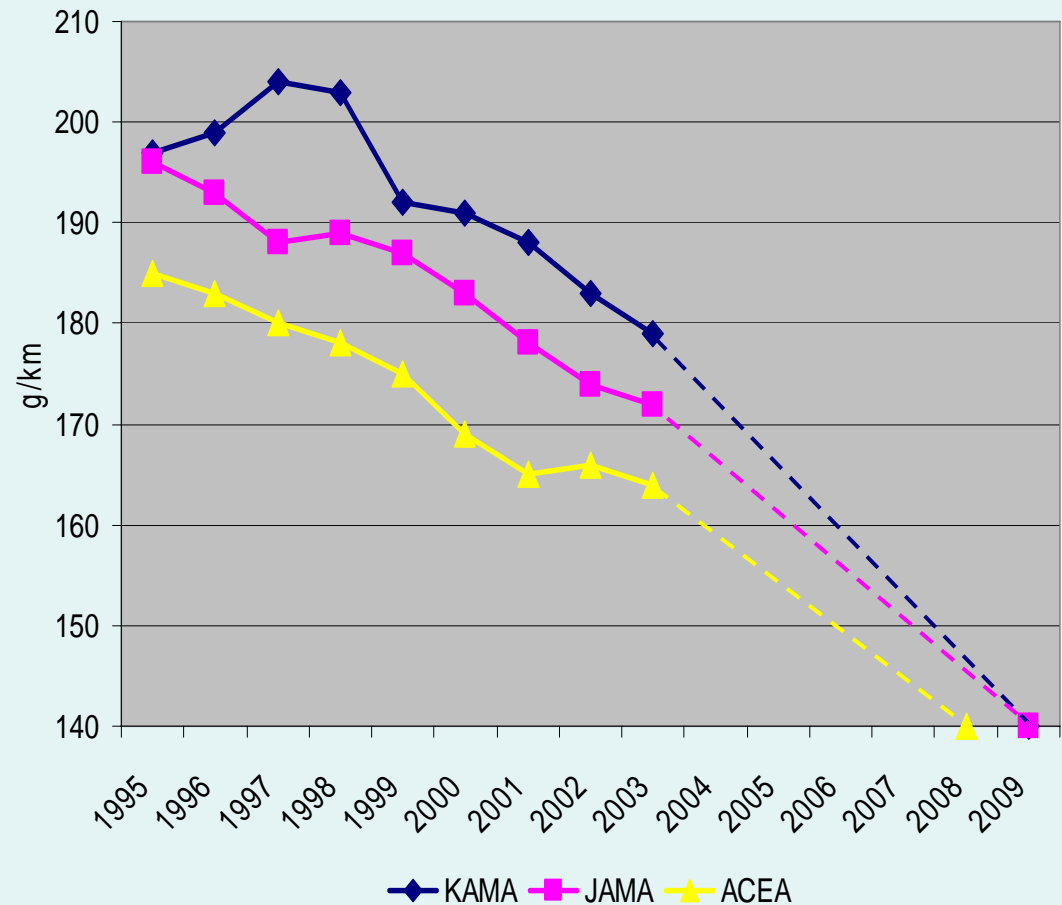
# *Voluntary Agreements and National Corporate Average Standards could encourage manufacturers to promote low carbon vehicles*

❑ EU Voluntary Agreement designed to deliver 140g/km EU15 fleet average by 2008/9

❑ Agreement applies across EU15 – no national targets; and to industry associations – not individual manufacturers

❑ A system of tradable CO2 credits for vehicle manufacturers proposed for California

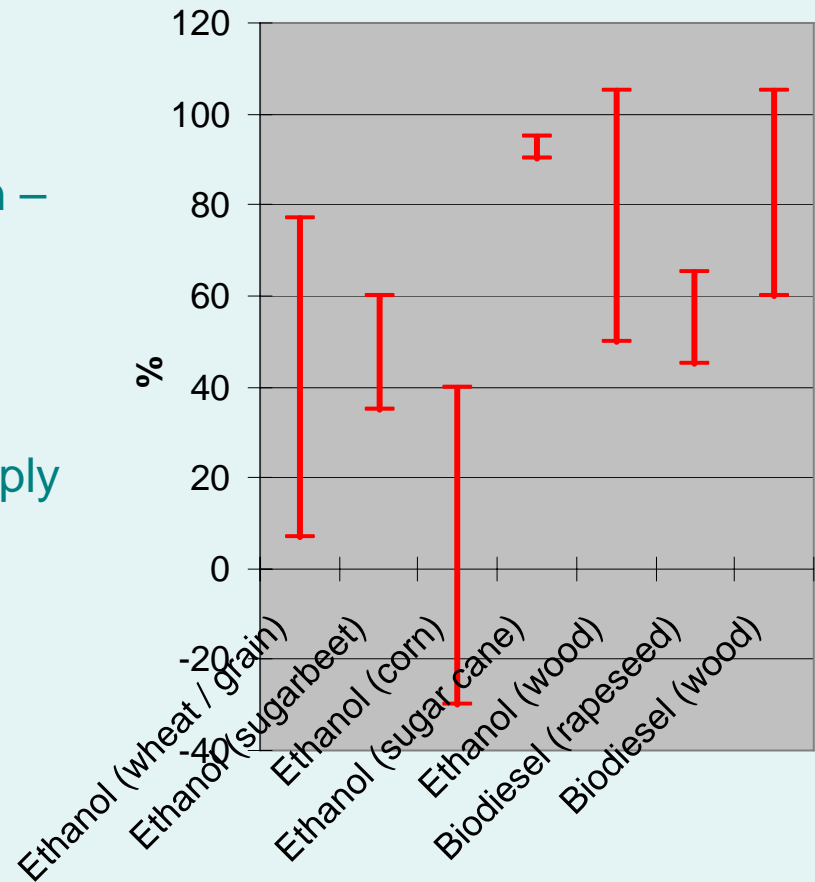
❑ Extension of the EU voluntary approach could be considered by individual member states



## *Duty differentials and a Renewable Transport Fuels Obligation will stimulate supply of biofuels*

- ❑ UK duty differentials for alternative fuels – 20p/l for biofuels
- ❑ UK Government to introduce a Renewable Transport Fuels Obligation – 5% renewable fuels by 2010
  - Fuel suppliers obligated to provide renewable fuels or pay a buy-out
- ❑ Scheme will seek to encourage supply of fuels with larger greenhouse gas saving
- ❑ Sustainability assurance scheme being considered to address wider environmental and social criteria

**% WTW GHG emissions compared to petrol or diesel**



# *Strategies to promote sales of low carbon vehicles*

- ❑ Improved information provision and educational campaigns
- ❑ Strengthening economic incentives and price signals
- ❑ Promoting the image and amenity value of low carbon vehicles
- ❑ Encouraging responsible advertising
- ❑ Targeting early adopter segments
- ❑ Corporate Average Fuel Economy Standards (CAFÉ)
- ❑ Tax incentives or obligations to support low carbon fuels
- ❑ Building effective partnerships



**APEX**  
Low Carbon Vehicle Partnership

AEW1718-120 Photographs by Emily Whitfield-Wicks 16-08-04  
Flash flood rips through Boscastle, Cornwall.

*Thank you*

**Low Carbon Vehicle Partnership**

**17 Queen Anne's Gate**

**London SW1H 9BU**

**Tel: 020 7222 8000**

**Email: [secretariat@lowcvp.org.uk](mailto:secretariat@lowcvp.org.uk)**

**Web: [www.lowcvp.org.uk](http://www.lowcvp.org.uk)**