

Market drivers for low carbon commercial vehicles

John Lewis – Waitrose Eco Vehicle Supplier Conference

23rd January 2008

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



LowCVP 'Low Carbon Road Transport Challenge'

Proposals to reduce road transport CO₂ emissions in the UK to help mitigate climate change
June 2006

Fuel Economy	Low Carbon Car												
<p>City emissions (g/km)</p> <ul style="list-style-type: none"> <100 A 101-120 B 121-150 C 151-180 D 181-225 E 226+ F 226+ G 	B 117 g/km												
<p>Fuel cost (estimated) for 12,000 miles</p> <p>VED for 12 months</p>	<p>£662</p> <p>£50</p>												
<p>Environmental Information</p> <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>													
<p>Make/Model: Low Carbon Car</p> <p>Fuel Type: Diesel</p>	<p>Engine Capacity (cc): 1309</p> <p>Transmission: 5 speed manual</p>												
<p>Fuel Consumption:</p> <table border="1"> <thead> <tr> <th>Drive cycle</th> <th>Litres/100km</th> <th>Mpg</th> </tr> </thead> <tbody> <tr> <td>Urban</td> <td>5.4</td> <td>52.3</td> </tr> <tr> <td>Extra-urban</td> <td>3.8</td> <td>74.2</td> </tr> <tr> <td>Combined</td> <td>4.4</td> <td>64.2</td> </tr> </tbody> </table>		Drive cycle	Litres/100km	Mpg	Urban	5.4	52.3	Extra-urban	3.8	74.2	Combined	4.4	64.2
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Combined	4.4	64.2											
<p>Carbon dioxide emissions (g/km): 117 g/km</p> <p><i>Important note:</i> Some specifications of the model shown may have lower CO₂ emissions than this. Check with your dealer.</p>													



LowCVP

Accelerating the shift to Low Carbon Vehicles and Fuels

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LowCVP marketing challenge

CARS NOT CARBON

A competition to promote greener motoring marketing

Event outline

Winners to be announced at the LowCVP Annual Conference
28th June 2007
DTI Conference Centre, Westminster

Accelerating the shift to low carbon vehicles and fuels

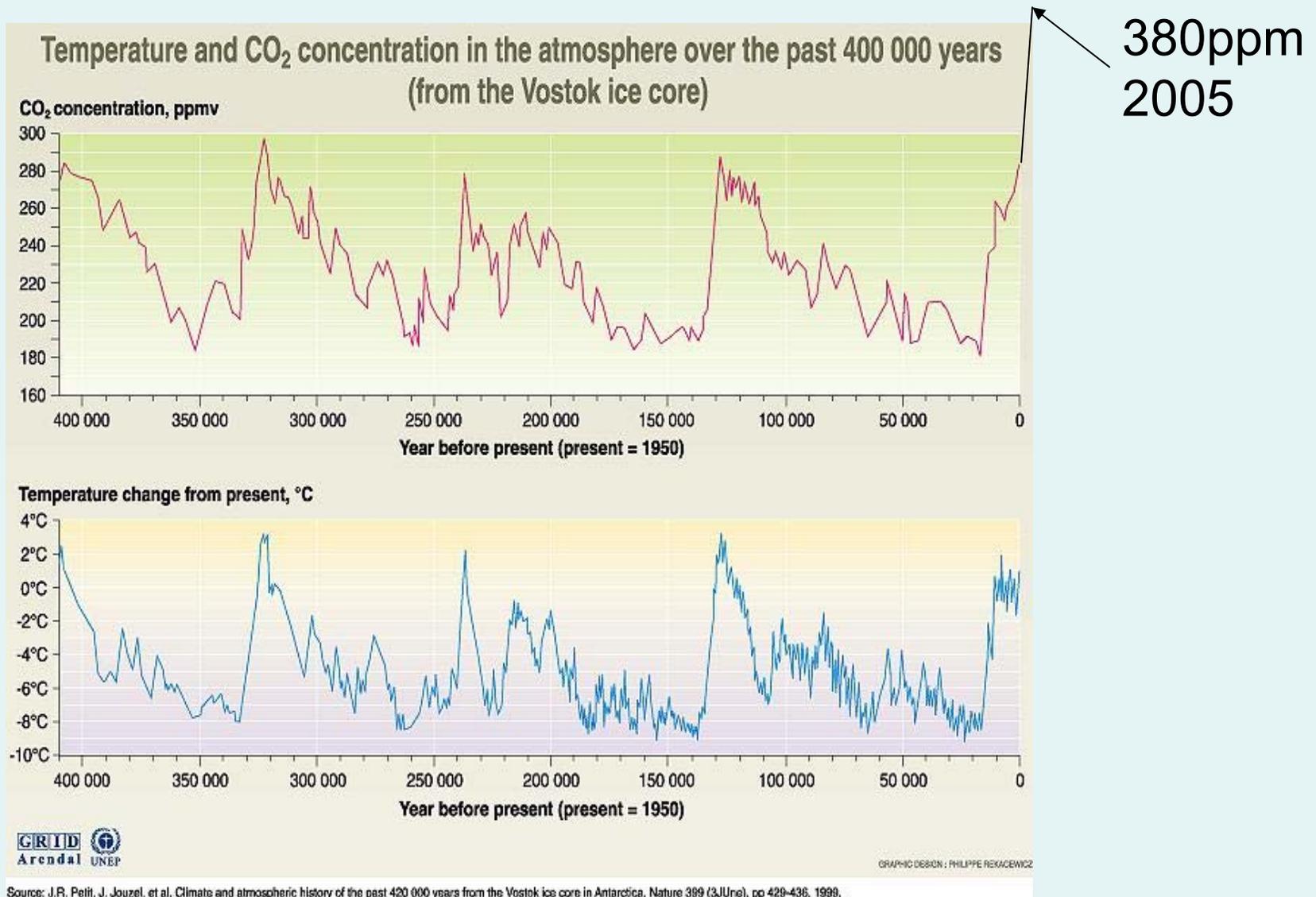


“Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level”

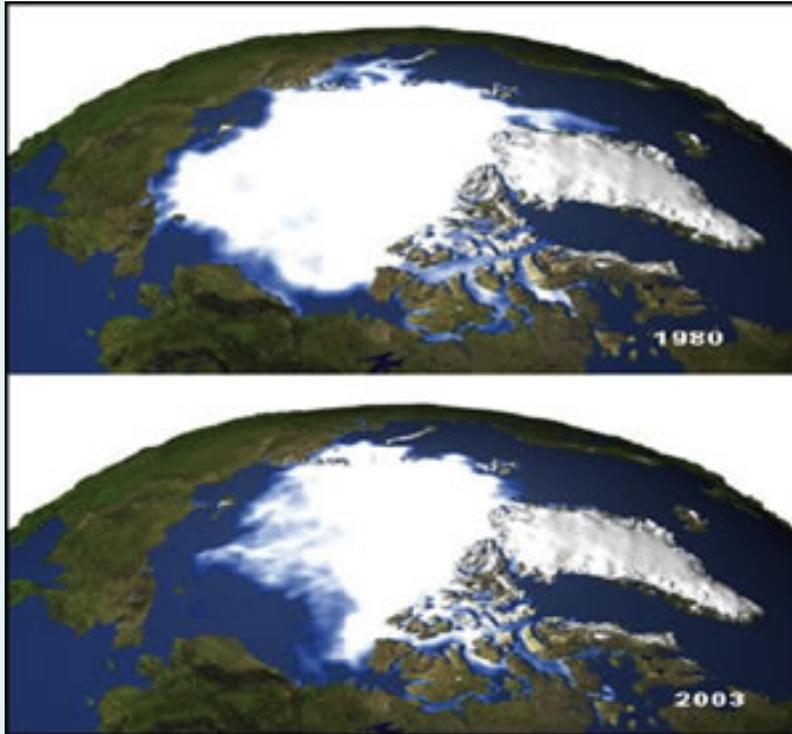
IPCC 2007



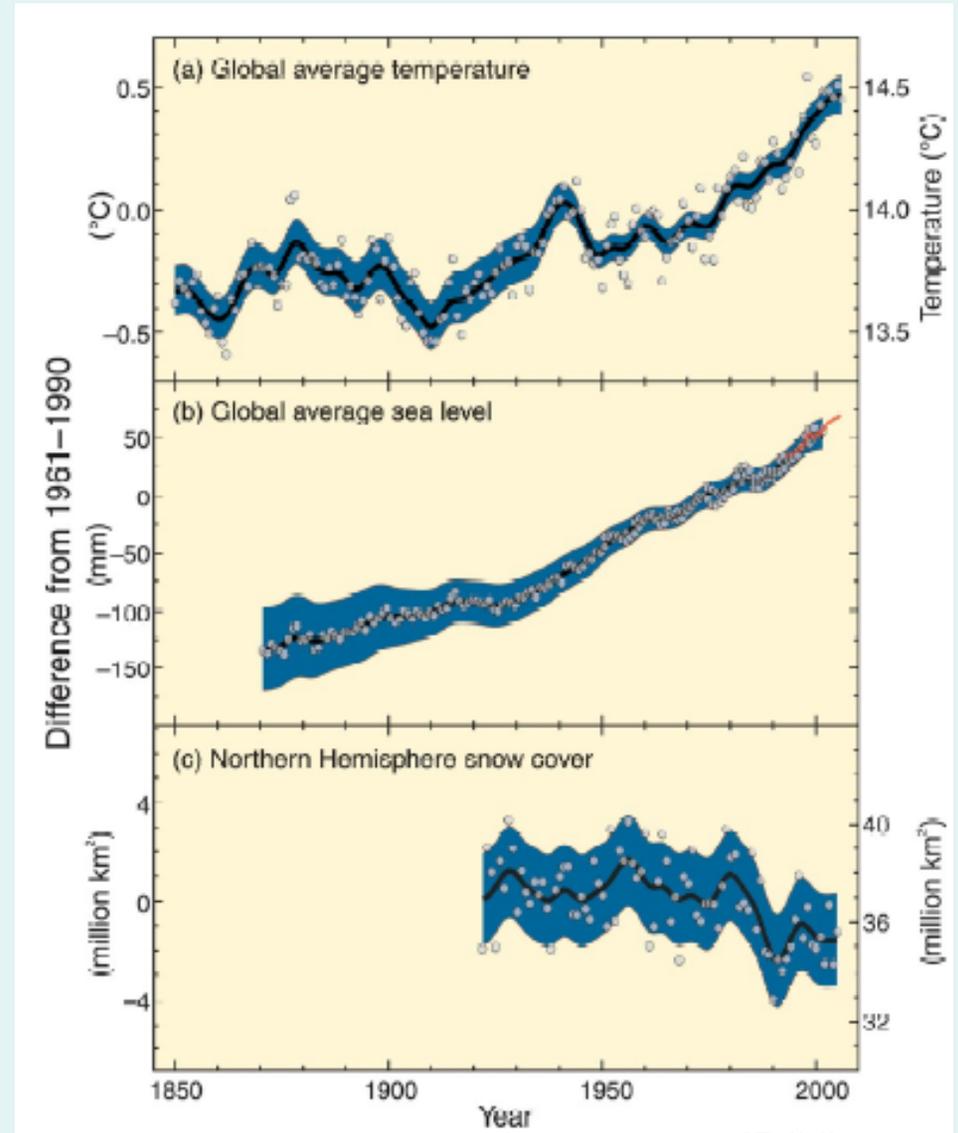
Global temperature and CO₂ levels are highly correlated over geological time – current CO₂ concentrations are unprecedented



Global temperature and sea level is rising, snow cover declining



NASA



Extreme weather events are increasing in frequency and impact



Forest fires, Greece 2007



Tewskesbury 2007



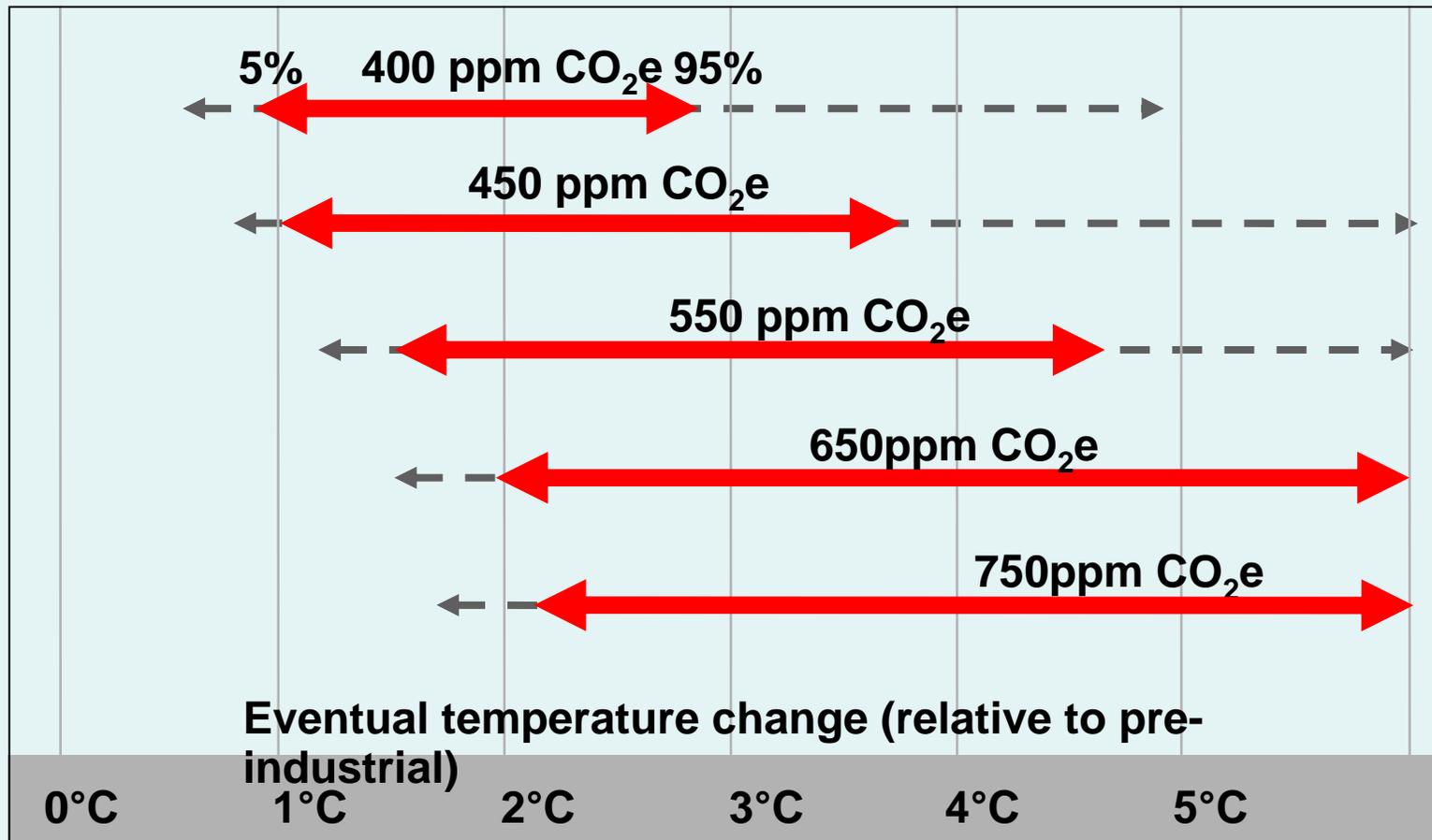
Northern India, 2007



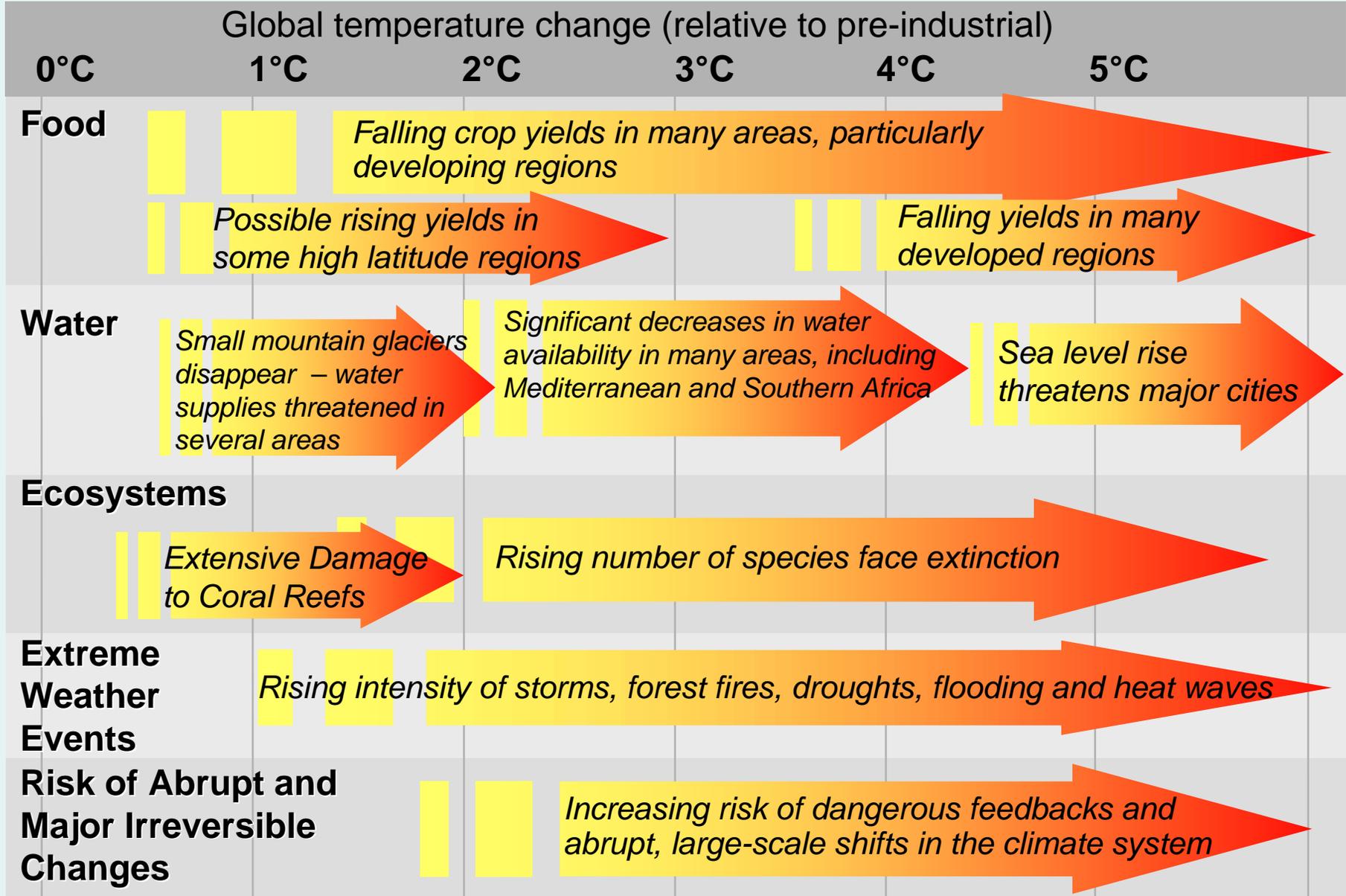
Hurricane Felix 2007

There is an increasing risk of dangerous climate change above a 2°C warming

Increasing risk of dangerous climate change



Projected impacts of climate change are driving international action

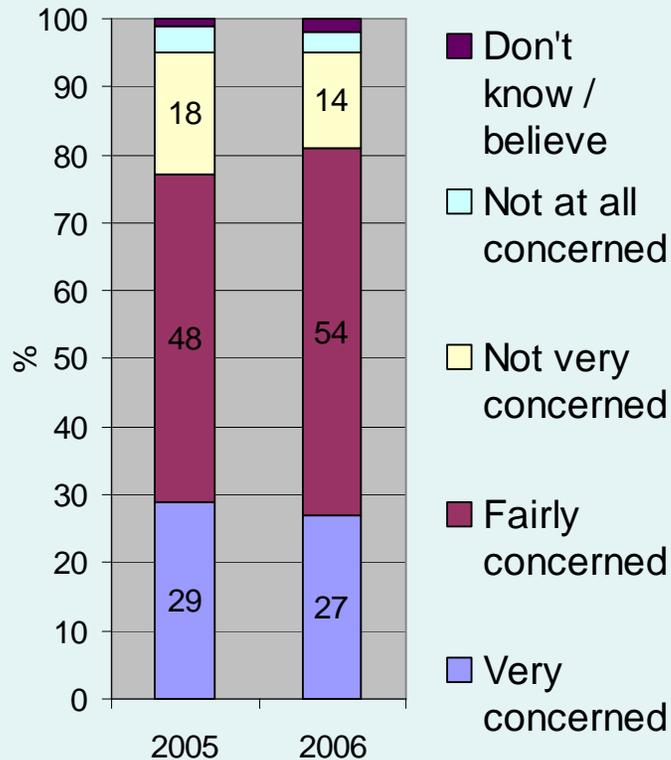


Government, business and the public are increasingly aware and responding to the challenge



Public concern about climate change is approaching saturation levels

Public attitudes to climate change



81% are Very or Fairly Concerned

87% are Very or Fairly Convinced

89% believe it will significantly affect future generations

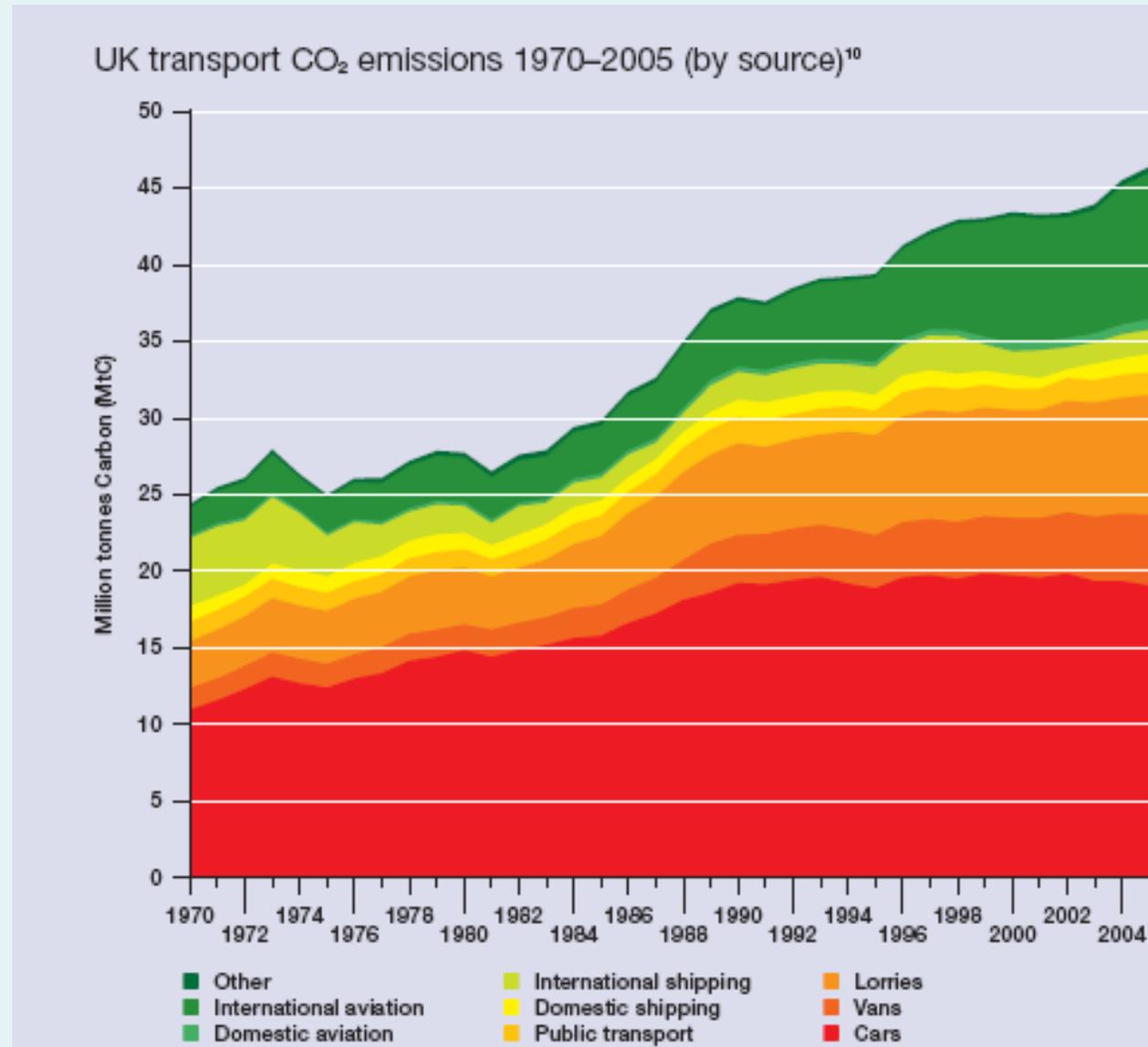
72% identify road transport as an important contributor

56% see business has a key role in reducing emissions

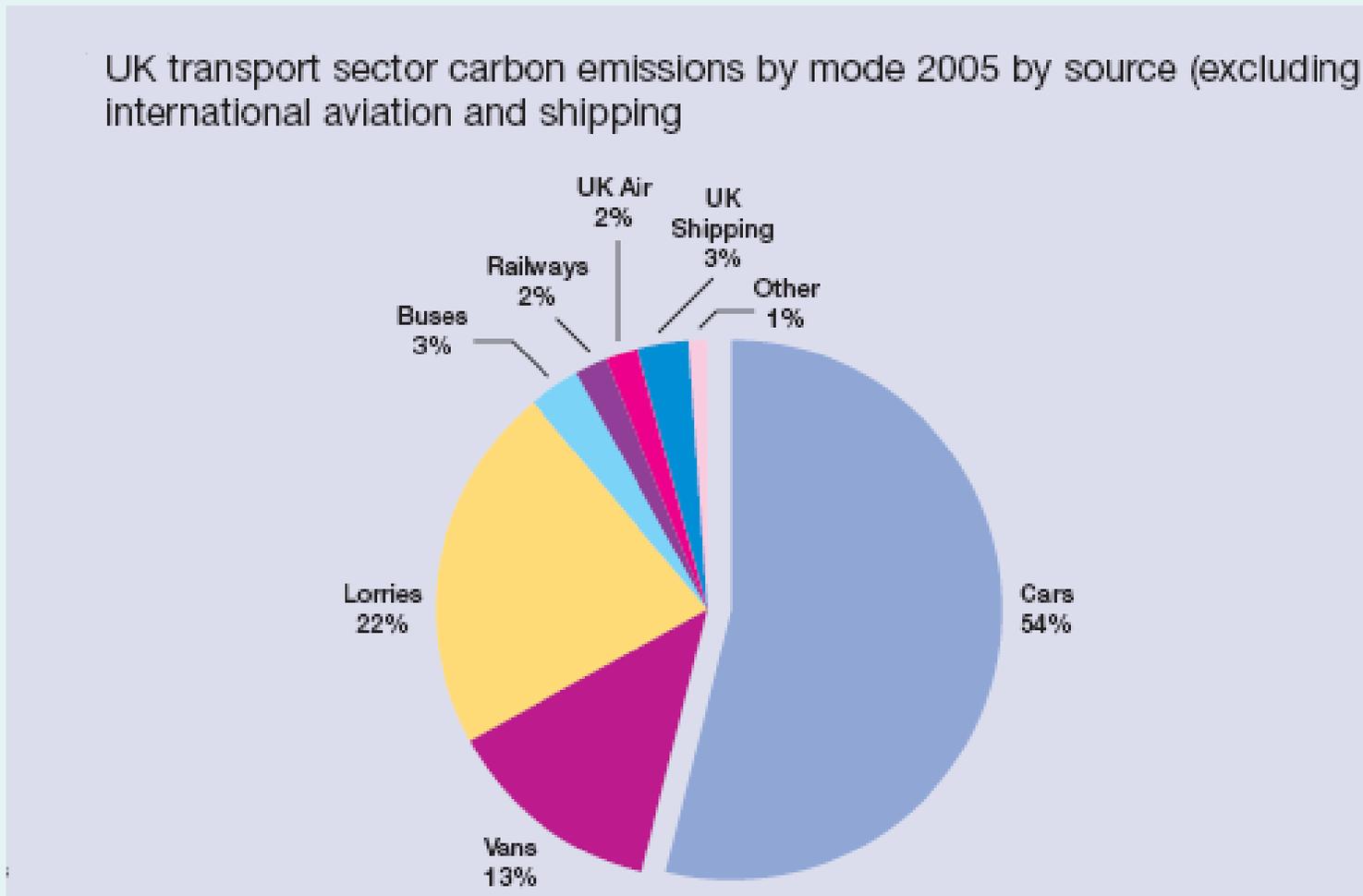
UK transport emissions have almost doubled since 1970

Emissions trends are driven by:

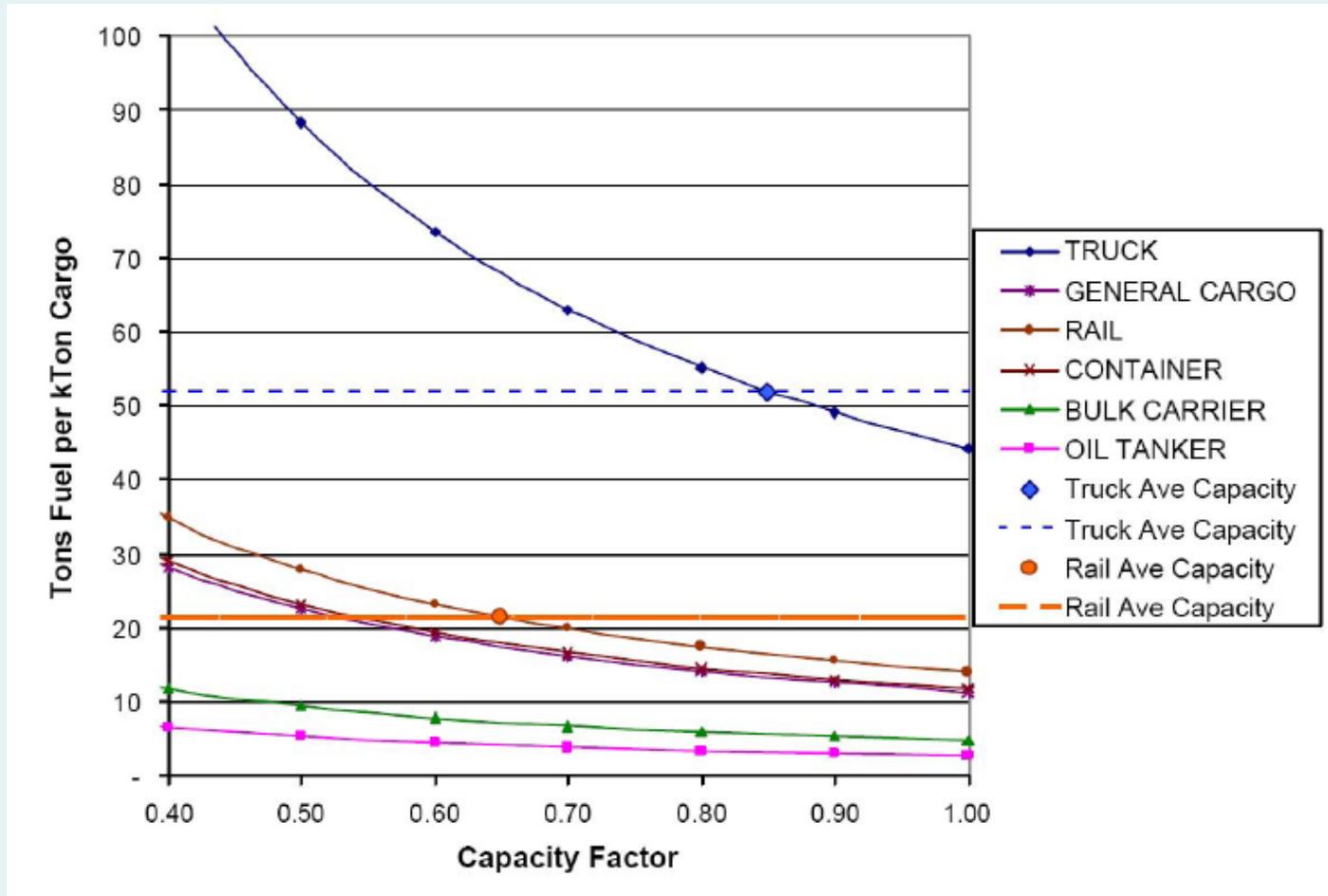
- ❑ The demand for movement and need to access facilities, services and goods
- ❑ The mode of transport used
- ❑ The carbon intensity and efficiency of the mode
- ❑ The operational efficiency of vehicle use



Lorries and Vans represents 35% of UK transport sector emissions

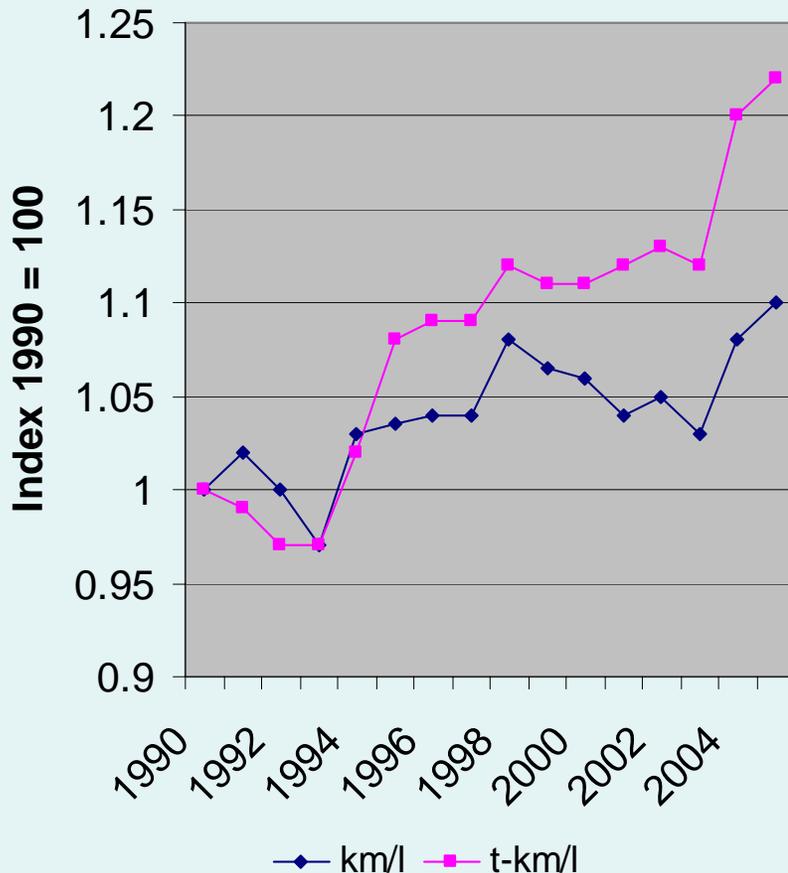


Road haulage represents the most carbon intensive form of freight transport



Fuel efficiency has improved by 10% since 1990 and carrying efficiency by 22%

Trend in average fuel efficiency of HGVs



Most improvement occurred between:

- '94-'98 – fuel duty escalator
- '04-'05 – high oil prices

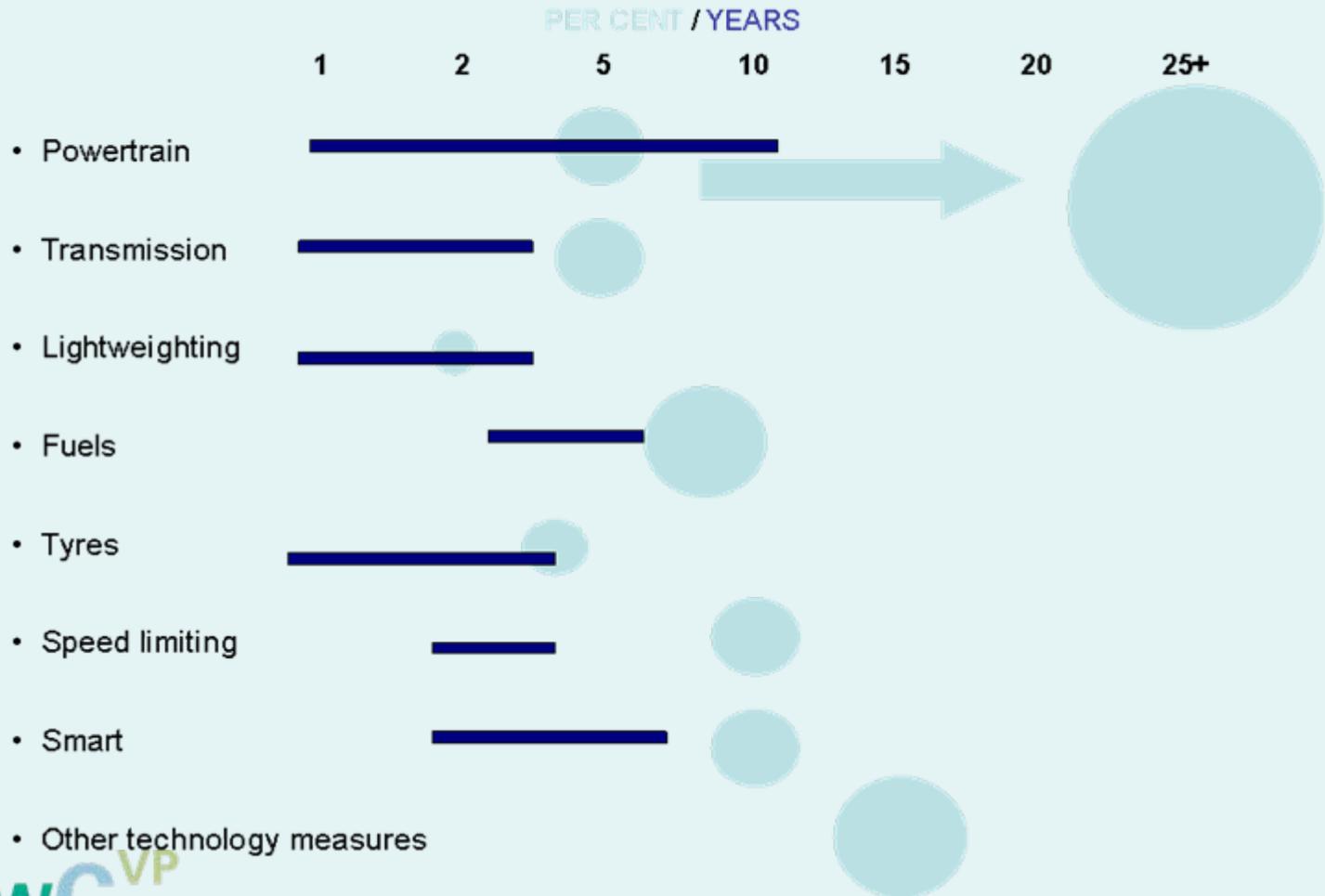
Greatest improvement in articulated vehicles

- Light artics -26%
- Heavy artics – 21%

Rigid vehicles efficiency has worsened since 1990 (+ 4%)

A range of technologies exist to improve vehicle efficiency

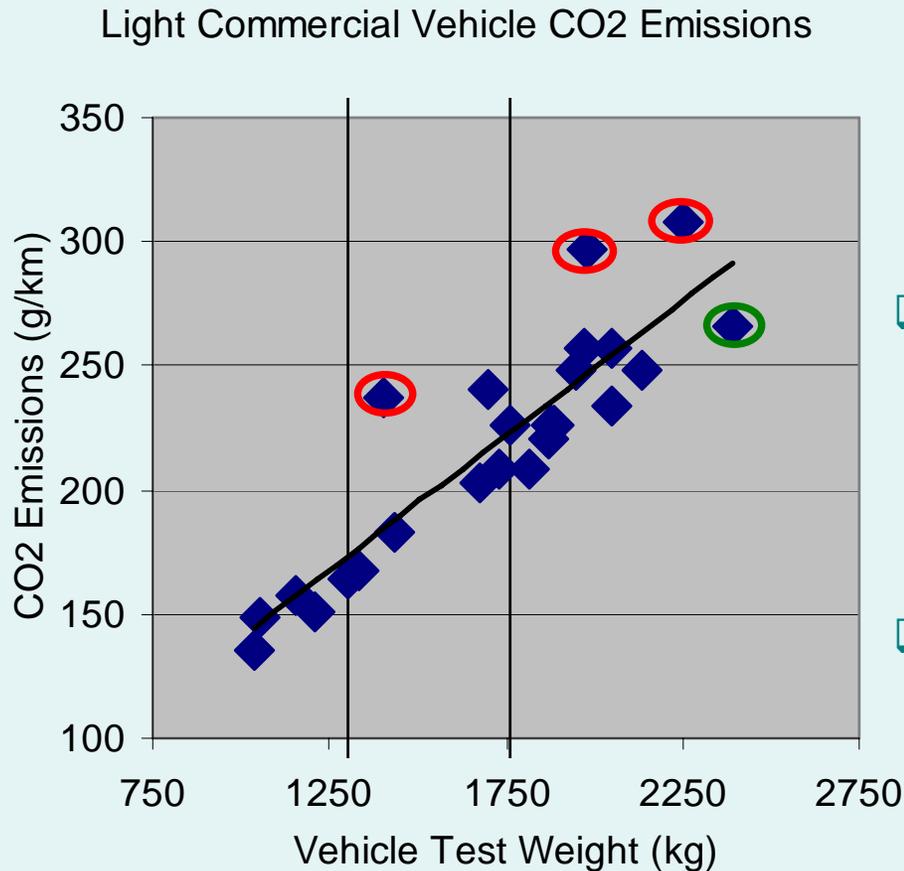
OPPORTUNITIES FOR CARBON SAVINGS IN VANS



A limited range of low carbon commercial vehicles are available



Policies will increasingly differentiate between vehicles with good and poor efficiency



□ Sticks

- EU Vans legislation (2008)
- CO2 emissions from Commercial Vehicles Directive (2009?)

□ Carrots

- UK low carbon public procurement programme
- Public Procurement Directive (2007)

□ Research / information

- DfT vans research (2008)
- Publication of van test data (2008)

Summary

- ❑ “Warming of the climate system is unequivocal..”
- ❑ A strong successor to Kyoto is looking increasingly likely
- ❑ The EU and UK are leading demands for global emissions reductions
- ❑ To date, commercial vehicles have been largely unimpacted by carbon constraints, but:
 - Transport and commercial vehicles specifically are a growing and important source of GHG emissions
 - Public pressure and corporate responsibility is increasingly demanding lower carbon intensity freight movement
 - Road haulage is a highly carbon intensive mode
 - Efficiency improvements to date are modest
- ❑ Truck / van brands will increasingly differentiate their performance based upon their efficiency
- ❑ Market niches for different van and commercial vehicle applications are developing and models are needed tailored to different applications
- ❑ Future emissions regulations are highly likely
- ❑ The Eco-Van/Lorry Challenge is an important initiative to stimulate innovation

In Mahatma Gandhi's words:

*"Be the change you want to see
in the world"*

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