

Low Carbon Vehicle Procurement

APSE

House of Commons

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Low Carbon Vehicle Partnership**

LowCVP 's mission is to accelerate a sustainable shift to low carbon vehicles and fuels & stimulate opportunities for UK businesses

LowCVP delivers its mission by:

- ❑ Working with Government (and other policy makers) to enable the development and deployment of more effective market transformation policies and programmes
- ❑ Engaging industry, stimulating and leading voluntary industry-wide initiatives
- ❑ Ensures consumers are informed about the opportunities and benefits of lower carbon options promoting their uptake
- ❑ Helping UK business, especially SMEs, to benefit from the new market opportunities
- ❑ Encouraging action and building a consensus for sustainable change through enhancing stakeholder knowledge and understanding.

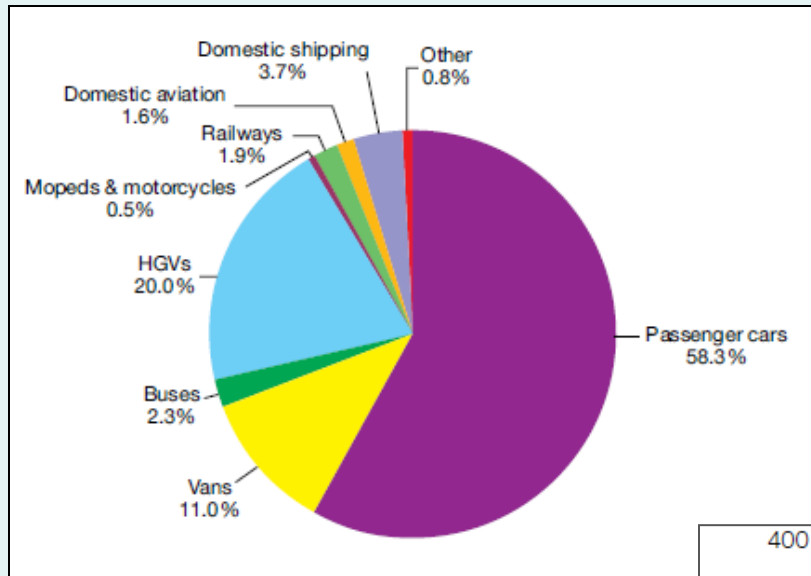


Outline

- ❑ The challenge ahead
 - Environmental and legislative drivers
- ❑ The technology roadmap for low carbon light commercial vehicles
 - Cost effectiveness of technologies
- ❑ Challenges for sustainable fuels
 - Biofues / hydrogen / electricity
- ❑ Procurement and opportunities for reducing your carbon footprint today
 - Vehicle selection
 - Specification
 - Sources of information

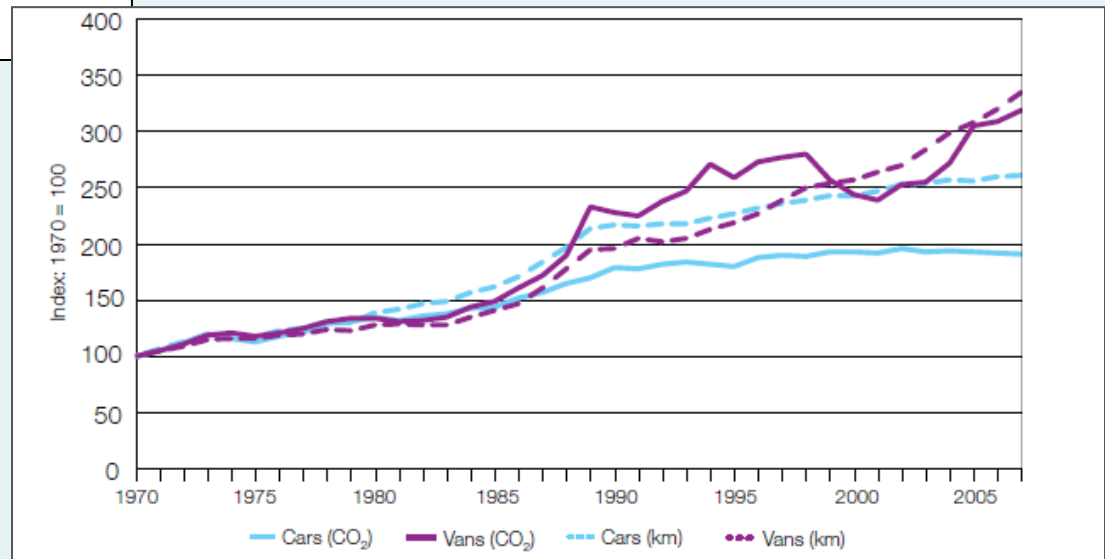


Climate Change Act 2008 requires UK to reduce emissions by 34% by 2020 and 80% by 2050 compared to 1990



- ❑ Domestic transport accounts for 21% of UK emissions, up 12% since 1990
- ❑ Road transport accounts for 92% of UK transport emissions
- ❑ Vans account for 11%

- ❑ Since 1970 vehicle kilometres have trebled for both cars and vans, and van CO₂ is growing rapidly

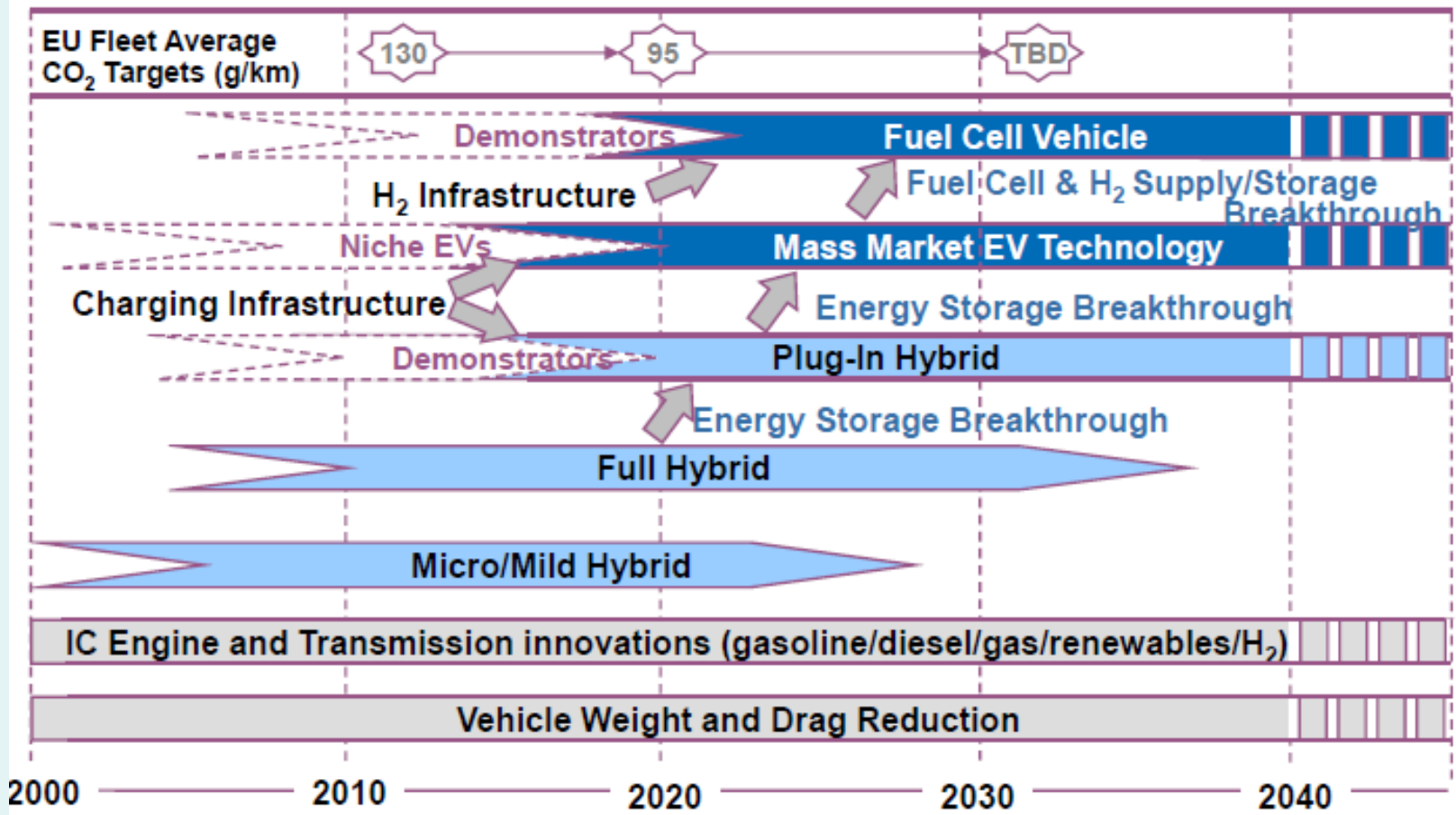


European Commission regulating LCV CO2

- ❑ The EU has reached agreement on regulating the emissions of new light commercial vehicles, in a similar manner to cars which places the obligation on the manufacturers.
- ❑ The regulation introduces mandatory targets for new LCV CO2;
 - 2017: 175 g/km
 - 2020: 147 g/km
- ❑ Penalty for non compliance 120 euros per gram per vehicle, modulated till 2018.
- ❑ Super credits for ultra low emission vehicles <50 g/km CO2
 - 2014: ultra low emission vehicle(ULEV) count as 2.5 vehicles
 - 2015: ULEVs count as 1.5 vehicles
- ❑ Eco-innovations – up to 7g/km per manufacturer from innovative technologies

There is emerging consensus on the future evolution of low carbon car technologies many of which are applicable to vans

NAIGT low carbon car technology roadmap



There is global momentum towards electrification of transport

- ❑ EVs address key geopolitical concerns:
 - Climate
 - Energy security
 - Peak oil

- ❑ Early fleet interest, products viewed as sustainable, high technology and highly visible products

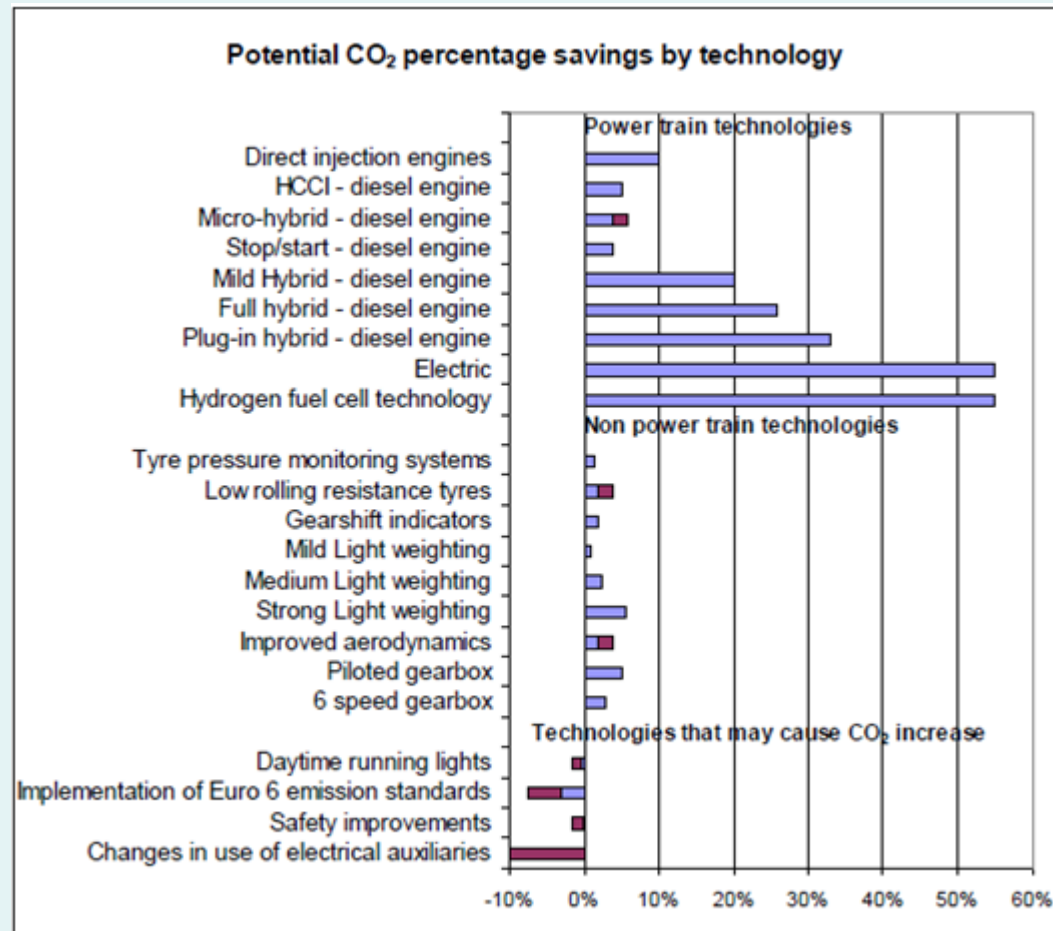
- ❑ Substantial public funding of RD&D

- ❑ Investment & commitment from global OEMs

But ... electric vehicles are not the silver bullet appropriate for all applications

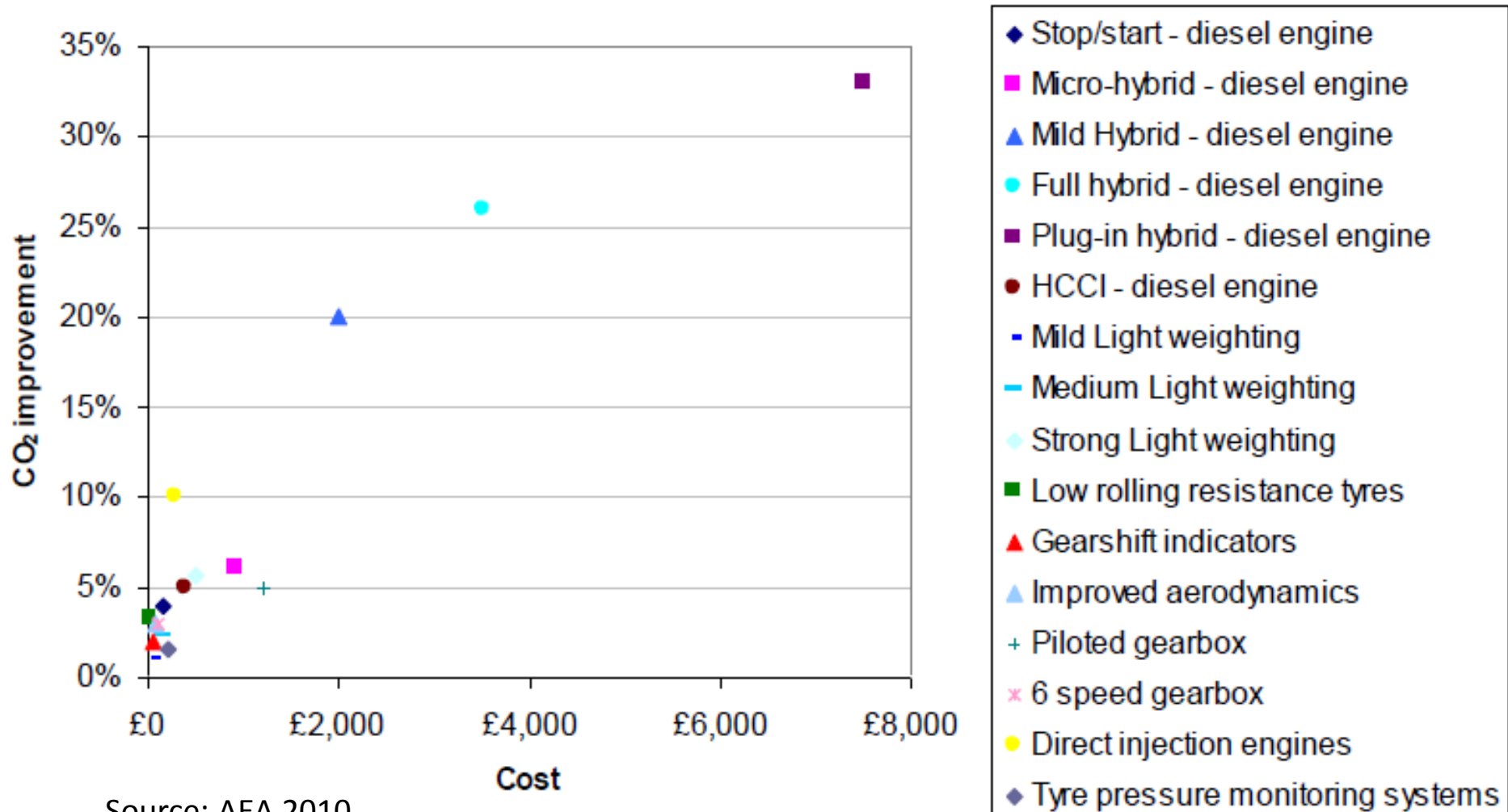


While electrification of powertrain offers the greatest potential for reductions in CO₂ in absolute terms there are a range of other technologies nearer to market.



There are a range of cost-effective technologies which deliver significant CO₂ and fuel savings - at a cost

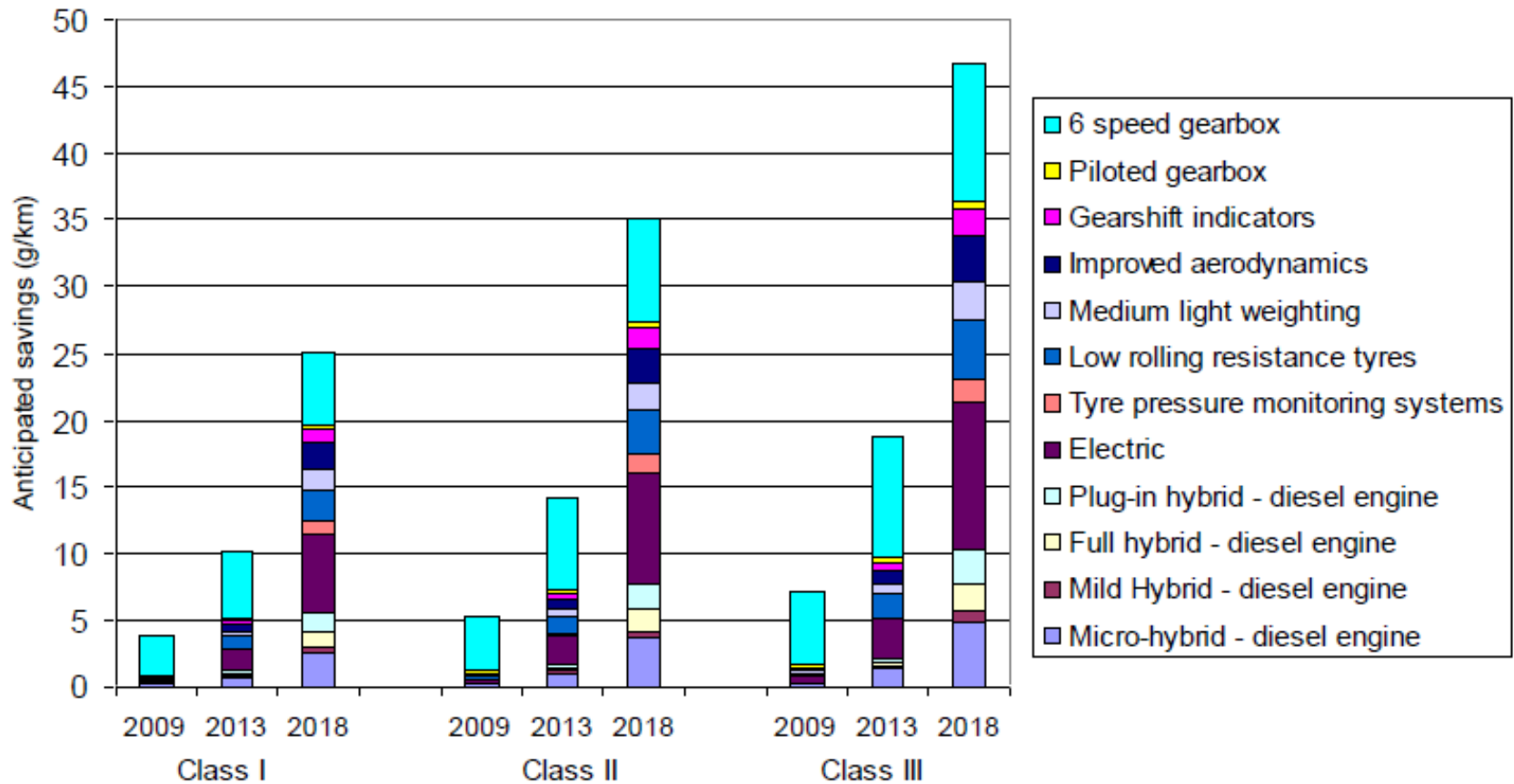
CO₂ improvement v cost (minus full electric*)



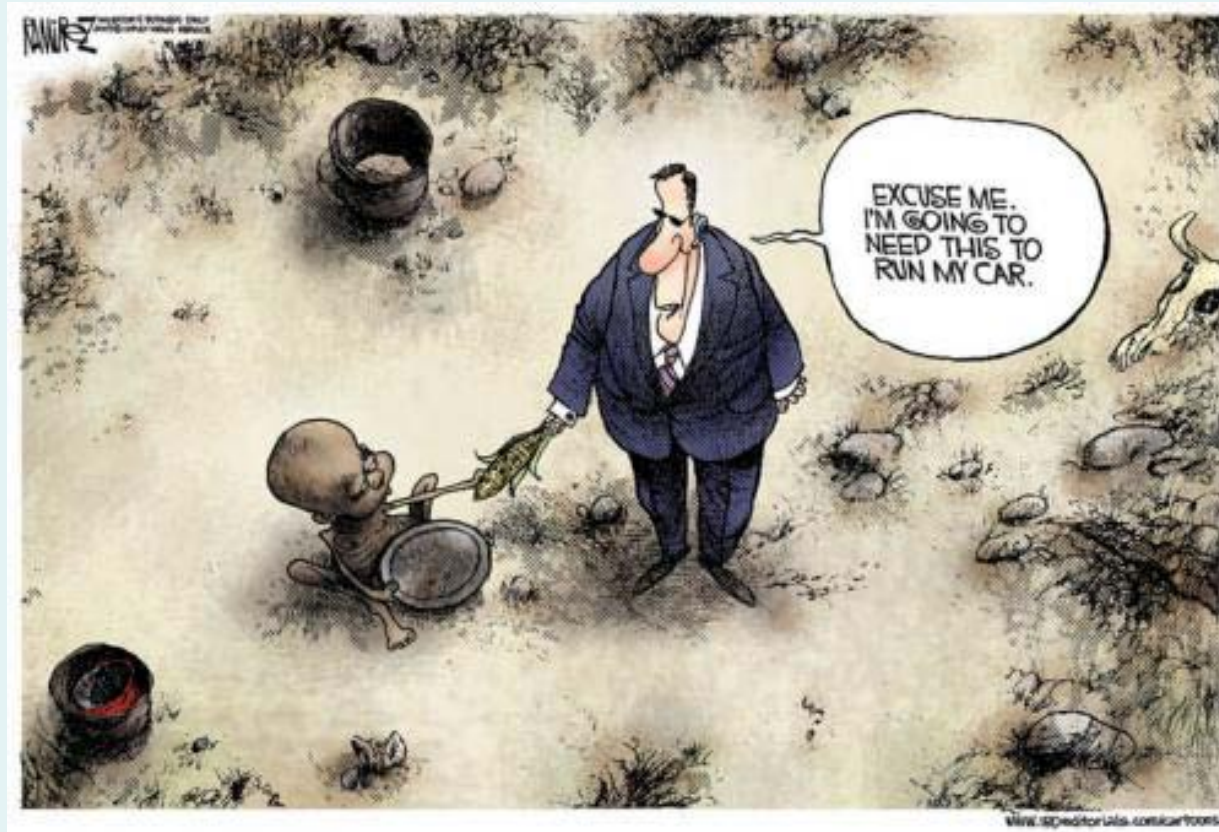
Source: AEA 2010

Over the next decade a range of technologies are expected to help deliver reductions in CO2 emissions


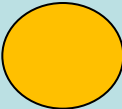
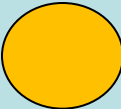
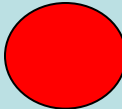



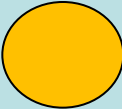
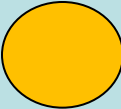
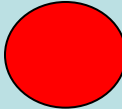





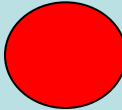




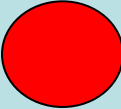
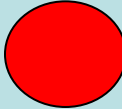




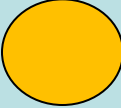


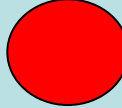
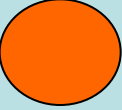





Anticipated fleet CO2 savings (g/km) by van class



Reducing the carbon footprint of fuels is challenging



To 2020 the challenge is to ready the market for renewable fuels – but which option?

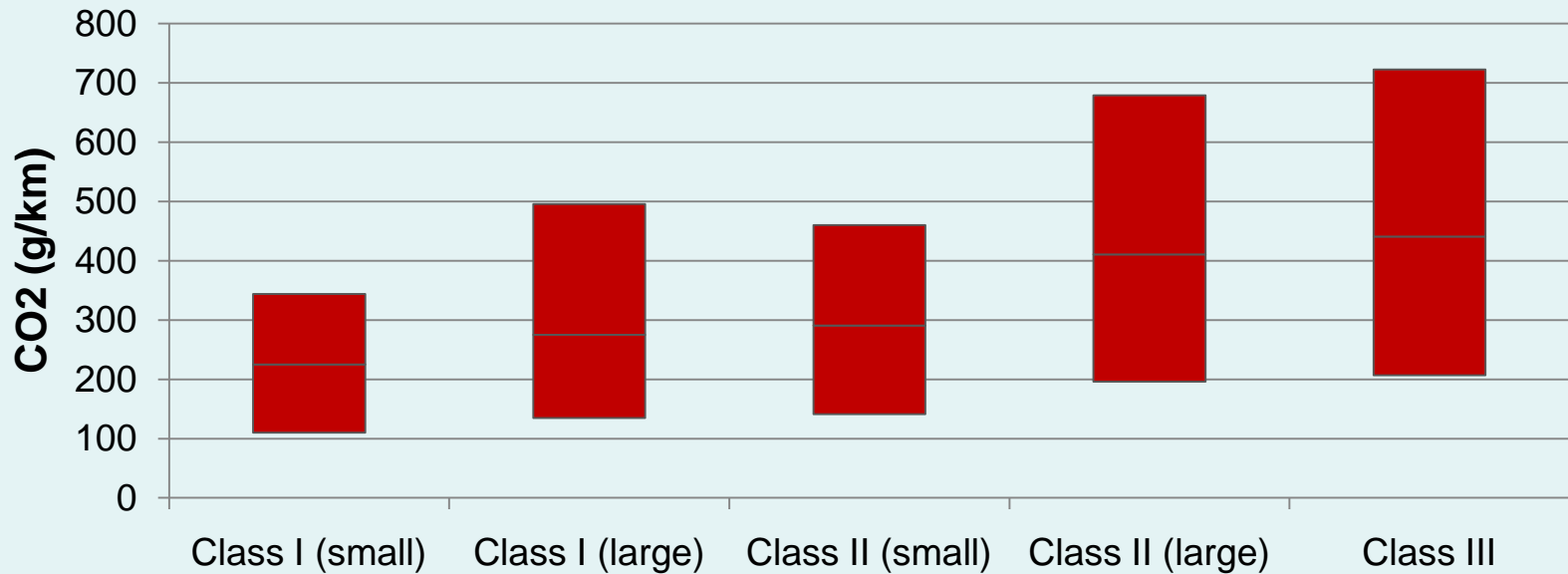
	1st G Bio	2nd G Bio	H2-IC	H2-FCV	Bio- CH4	EV
Technology readiness						
Cost competitiveness						
Vehicle availability						
Infrastructure deployment						
Driver acceptability						
Sustainability						

NB: The relative scores do not represent LowCVP policy

Directive on the Promotion of Clean and Energy Efficient Road Transport Vehicles

- ❑ The Directive is intended to support a broad market introduction of environmentally-friendly vehicles.
- ❑ It requires public procurement of vehicles takes account of:
 - Lifetime costs of operation, and
 - Lifetime energy and environmental impacts of vehicles.
- ❑ The Directive requires lifetime costs to be calculated as follows:
 - Lifetime costs for the individual contributions of:
 - Energy consumption
 - CO2 emissions
 - Pollutant emissions
 - The total operational lifetime costs as the sum of these three contributions.
 - The total costs of a vehicle as the sum of total operational lifetime costs plus the purchase cost of the vehicle.

Choosing best in class offers significant opportunities to reduce CO2 and energy consumption



Vehicle type	Min CO2	Ave CO2	Min v Ave
Class I (small)	111	115	-3.5%
Class I (large)	135	139	-2.9%
Class II (small)	141	151	-6.6%
Class II (large)	196	216	-9.3%
Class III	207	234	-11.5%

What thresholds might you use to specify a low carbon van?

Van Group	CO2 for Best Decile (g/km)	Ave CO2 for whole group (g/km)
Class I (small)	111	115
Class I (large)	135	139
Class II (small)	142	151
Class II (large)	196	216
Class III	207	234

- ❑ Proposed European van CO2 regulation would imply an improvement in CO2 thresholds of 2% per annum.
- ❑ The introduction of plug-in hybrids, electric, high blend biofuels and biogas could deliver greater reductions but on a WTW basis.

Most fuel efficient / low carbon light commercial vehicles available via Business Link and VCA websites



RIGHT VAN MAN

save fuel – save CO₂ – save money




www.vca.gov.uk

SMMT supported

ACT ON CO₂

www.direct.gov.uk

www.smmt.co.uk

[Van Home](#) | [Download Data](#) | [Manufacturers](#) | [Exit to Business Link](#)

Vehicles

Filter Options

Use the drop-down options below to narrow down the list of available vehicles. **Changing any one of these options will automatically reset the table of results**

Manufacturer: All	Model: All	Fuel Type: All
Gearbox: All	Vehicle Load Length: All	Euro Standard: All
CO ₂ : All	Vehicle Type: Small Van	

Showing vehicles in Small Van group

[1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [Next](#)

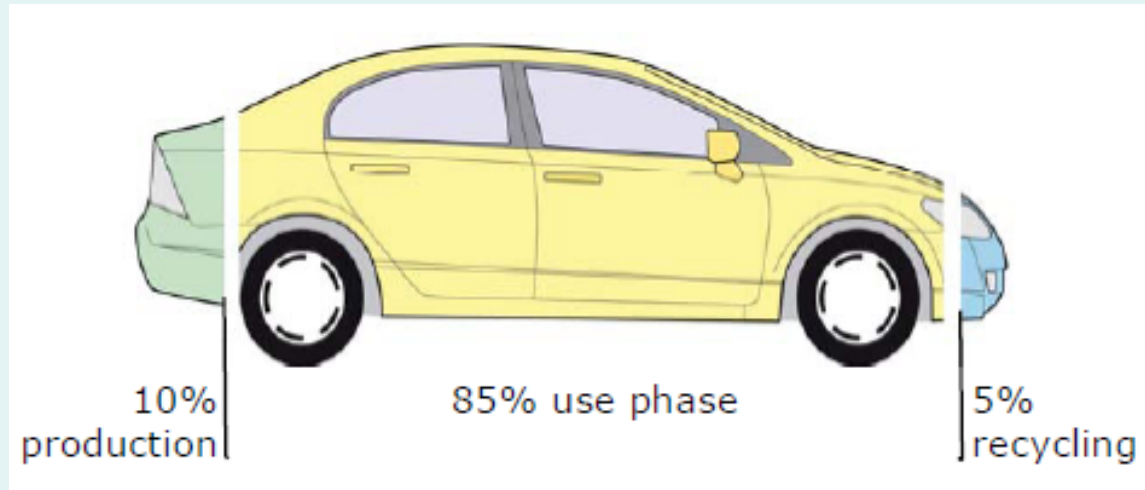
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81 items in 9 pages

Make	Model	Vehicle Name	Fuel Type	Engine Size (cc)	Transmission	Load Length (Metres)	Gross Weight (kg)	Urban mpg	Extra Urban mpg	Combined mpg	CO ₂ g/km
View	Ford	Fiesta Panel Van - 1.6 Duratorq TDCi Diesel +DPF (ECONetic)	Diesel	1560	Manual	1.5	1530	61.4	88.3	76.3	98
View	Ford	Fiesta Panel Van - 1.6 Duratorq TDCi Diesel +DPF (ECONetic)	Diesel	1560	Manual	1.5	1530	61.4	88.3	76.3	98
View	Ford	Fiesta Panel Van - 1.6 Duratorq TDCi Diesel +DPF	Diesel	1560	Manual	1.5	1550	57.6	78.5	68.9	107
View	Ford	Fiesta Panel Van - 1.4 Duratorq TDCi Diesel	Diesel	1399	Manual	1.5	1535	53.3	80.7	67.3	110

CO₂ figures for unladen LCVs

Increasingly whole life cycle emissions will need to be considered to assess your fleets carbon footprint



- ❑ Most CO2 emissions come from the use phase of the vehicles life cycle.
- ❑ While in use CO2 emissions have been reducing, the proportion has stayed stable due to improvements in energy management in the other phases.
- ❑ The introduction of technology advanced vehicles will increase CO2 emissions from production and end of life in future.

Vehicle and fuel technology

- ❑ We must decarbonise transport & there are significant opportunities in vans
- ❑ Electrification of transport will be developed – but this is not the only or cheapest options
- ❑ Biofuels likely to play a role although sustainability issues must be addressed
- ❑ Potential to significantly reduce CO2 emissions and cut costs through better vehicle selection now



Thank you for your
attention

Any Questions?

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