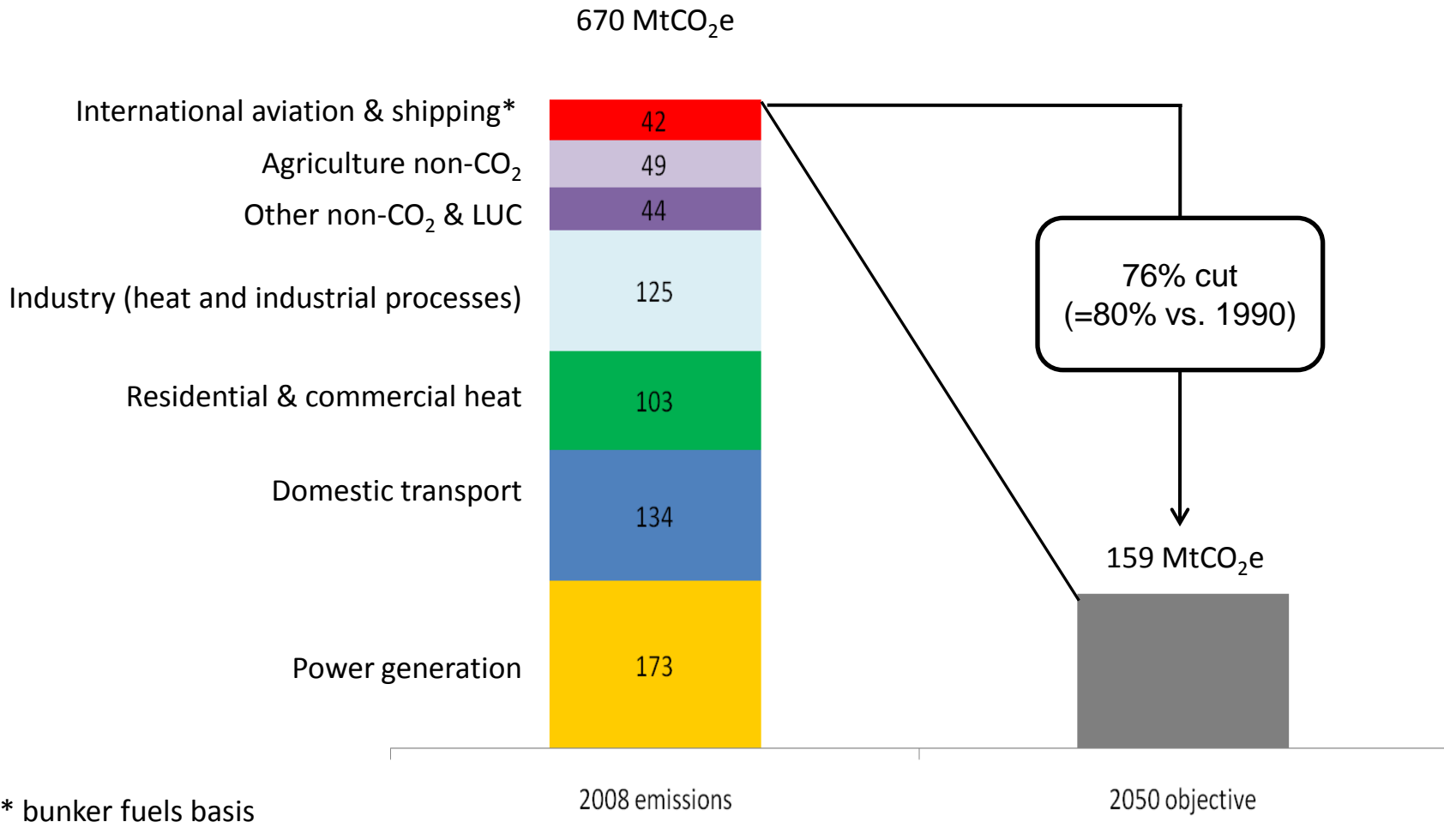


# Carbon budgets: surface transport contribution

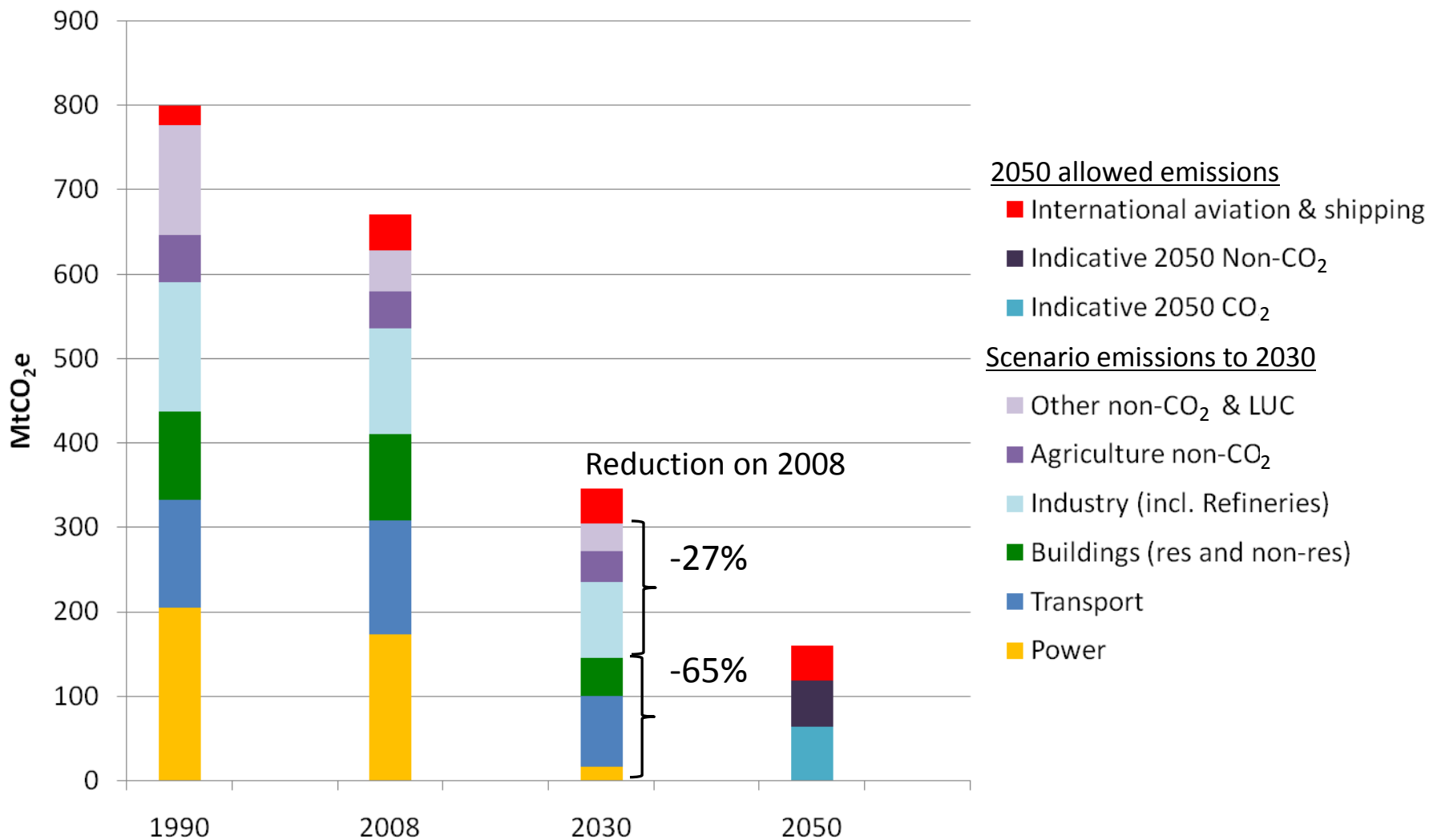
[www.theccc.org.uk](http://www.theccc.org.uk)

1. The 2050 target
2. An indicative 2030 target
3. The fourth carbon budget
4. Progress and challenges reducing surface transport emissions

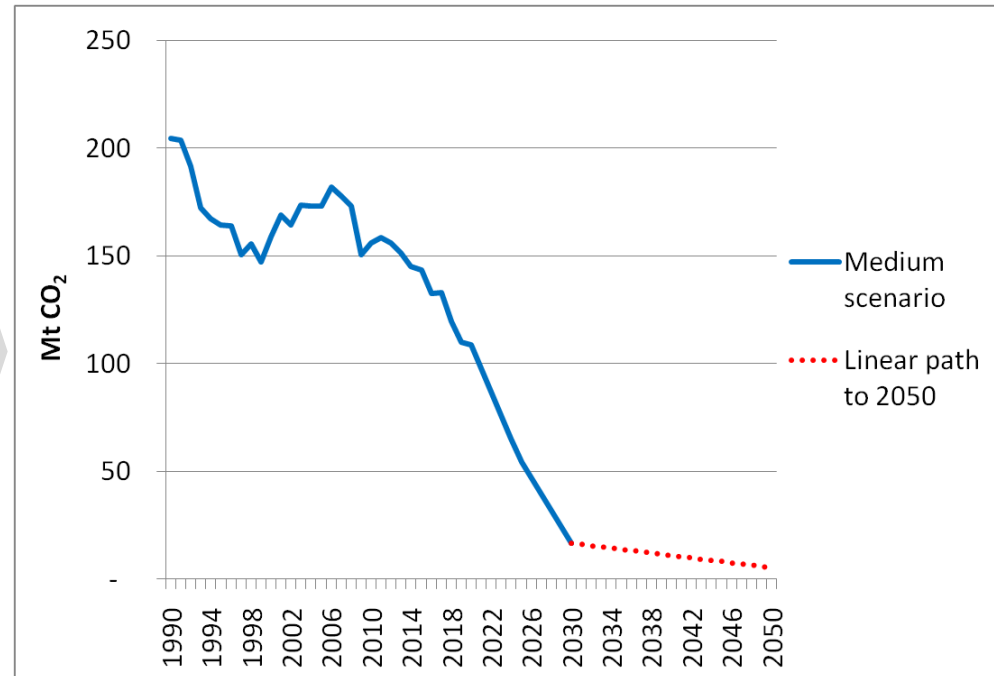
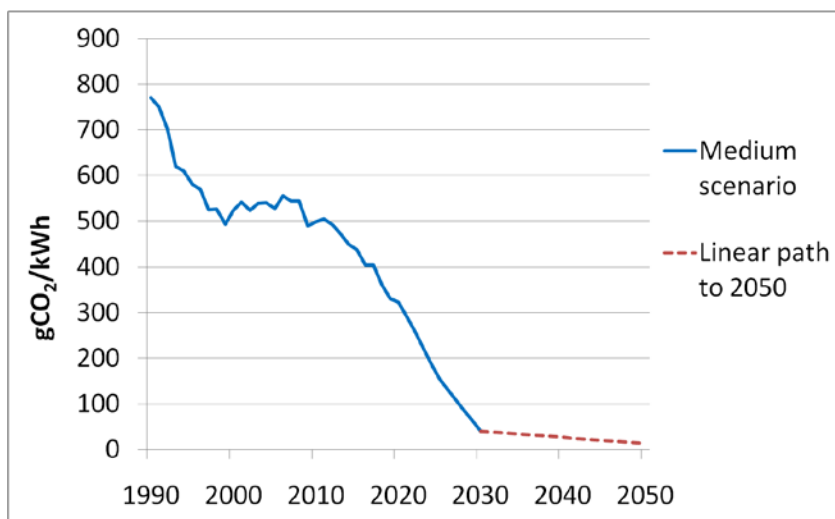
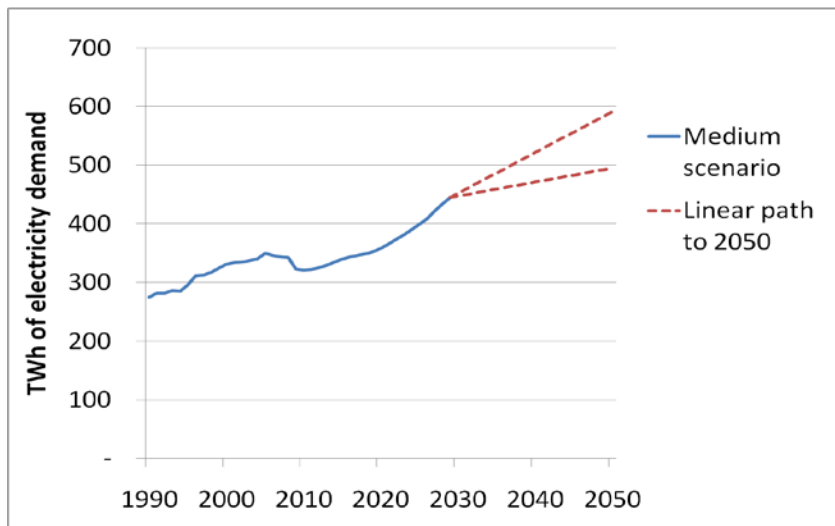
# The UK's 2050 target



# We have developed a feasible and cost-effective planning scenario for 2030 that is compatible with the 2050 target



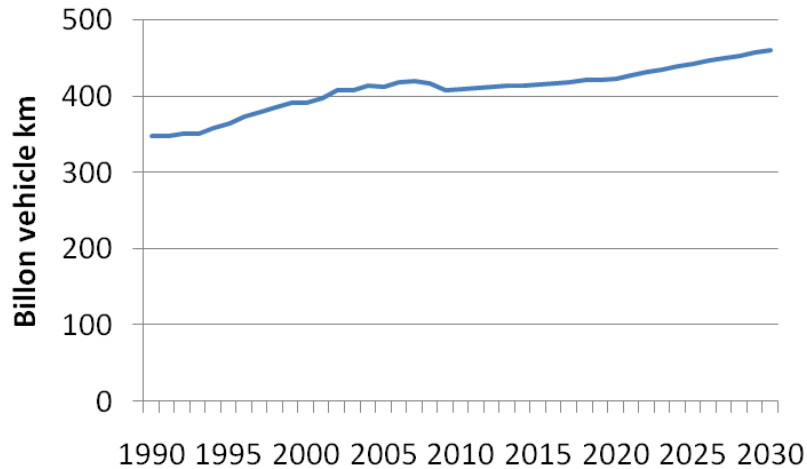
# Power sector: Emissions intensity will have to decrease, whilst demand is likely to increase...



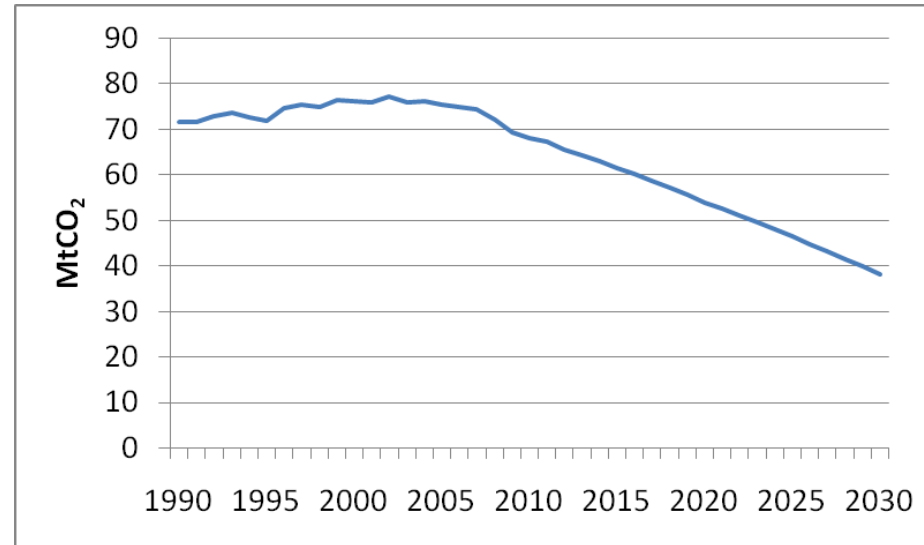
Source for 2050: range of MARKAL model runs for CCC (2010)

# Transport: Emissions reduction will come from reducing g/km, while km likely to increase

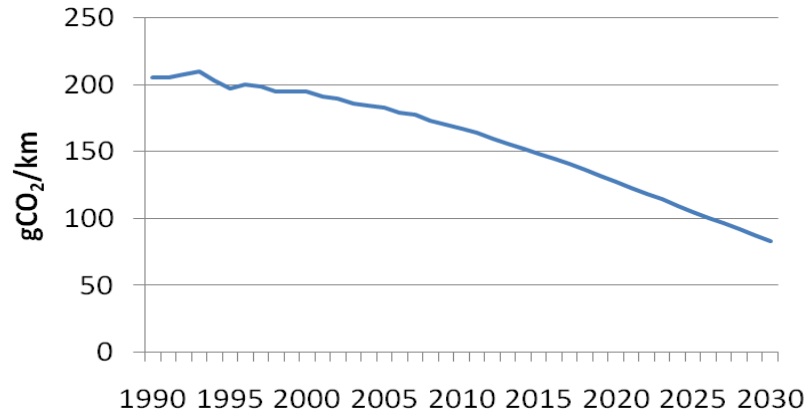
### Car km



### Car emissions



### Car g / km

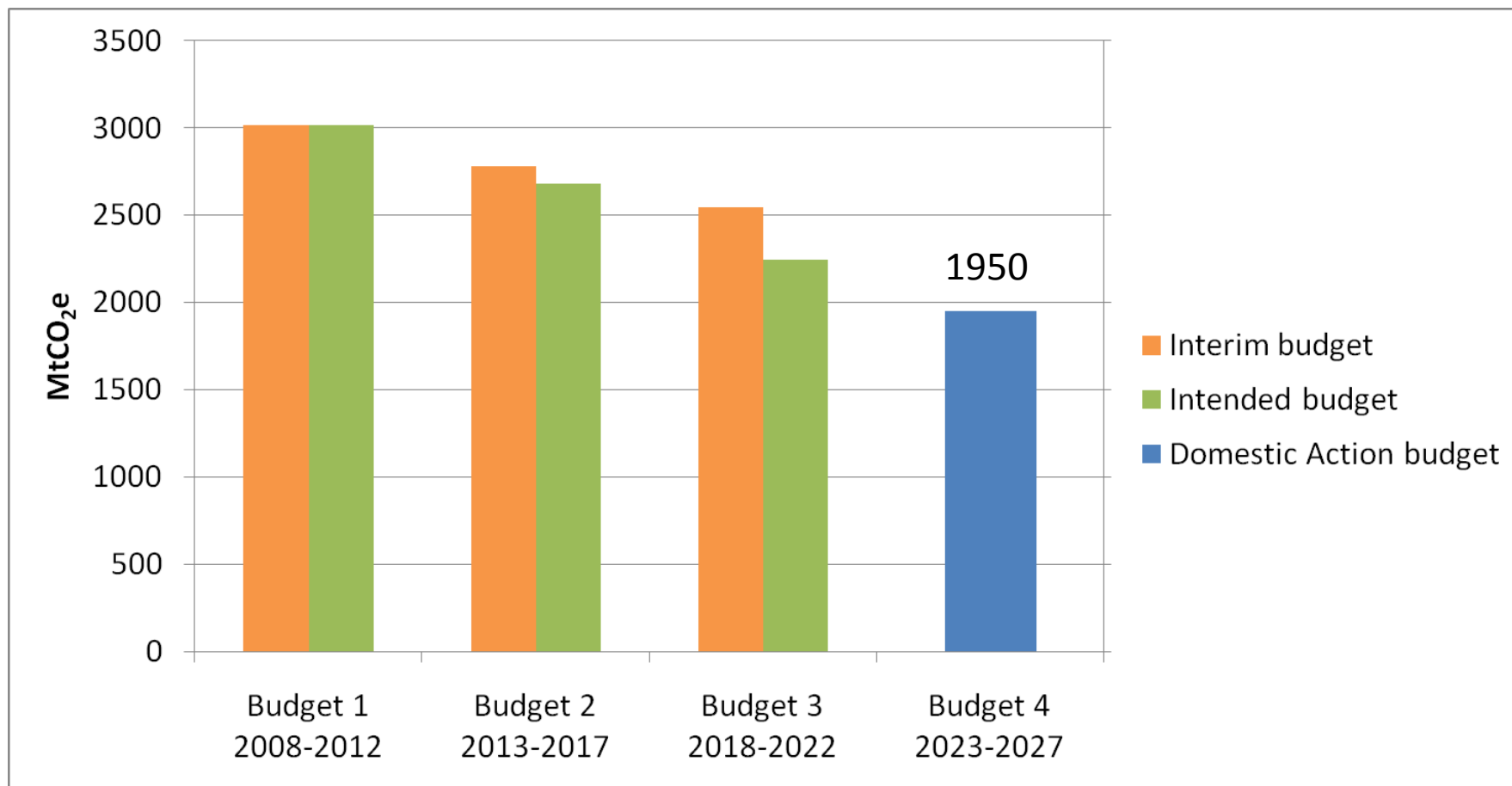


**Vans: 17% emissions reduction to 2030**  
**HGVs: 33% emissions reduction to 2030**

# Transport: Low-carbon vehicles need to be 60% of new sales in 2030

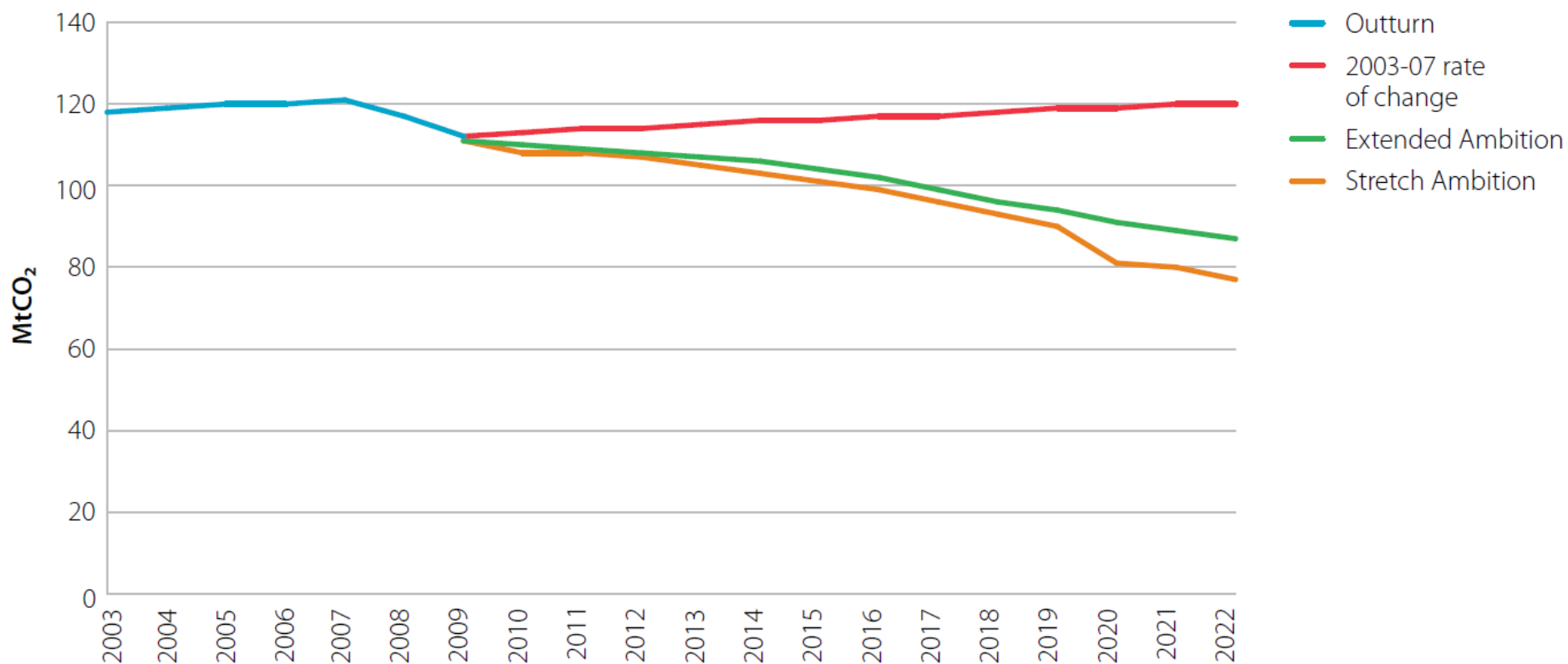
	<u>2030</u>			
	<u>Share of new car sales</u>	<u>Share of miles</u>	<u>Emissions Intensity</u>	
Conventional cars	40% →	70% ✘	80-125 g/km	<p><b><u>Average emissions intensity in 2030</u></b></p> <p><b>New cars purchased: 52g/km (versus 150g/km today)</b></p> <p><b>All cars on road: 81 g/km (versus 173 g/km today)</b></p>
Plug-in hybrids	40% →	20% ✘	50 g/km	
Pure electric vehicles	20% →	10% ✘	0 g/km	

# Interim, Intended and Domestic Action budgets

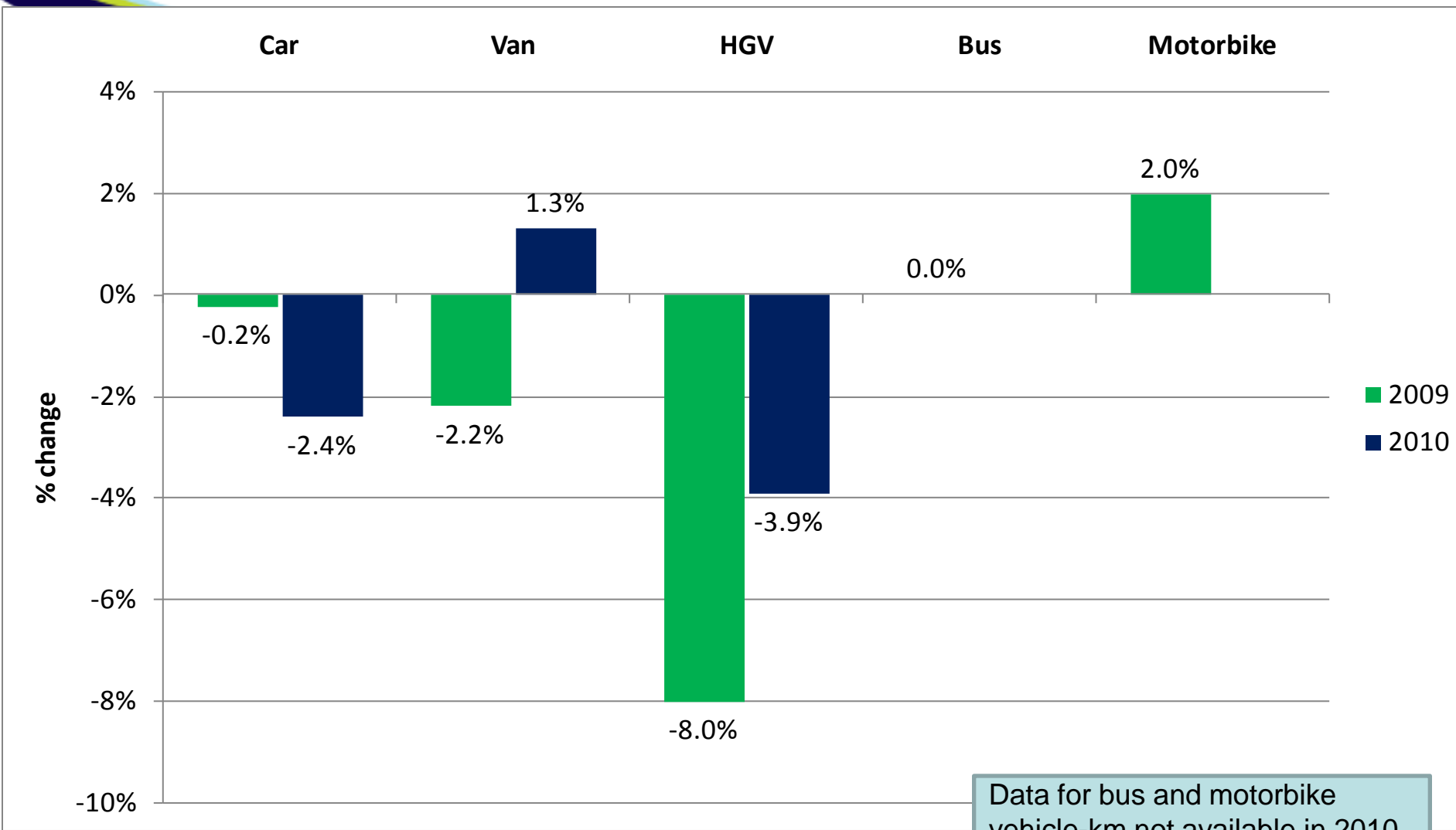




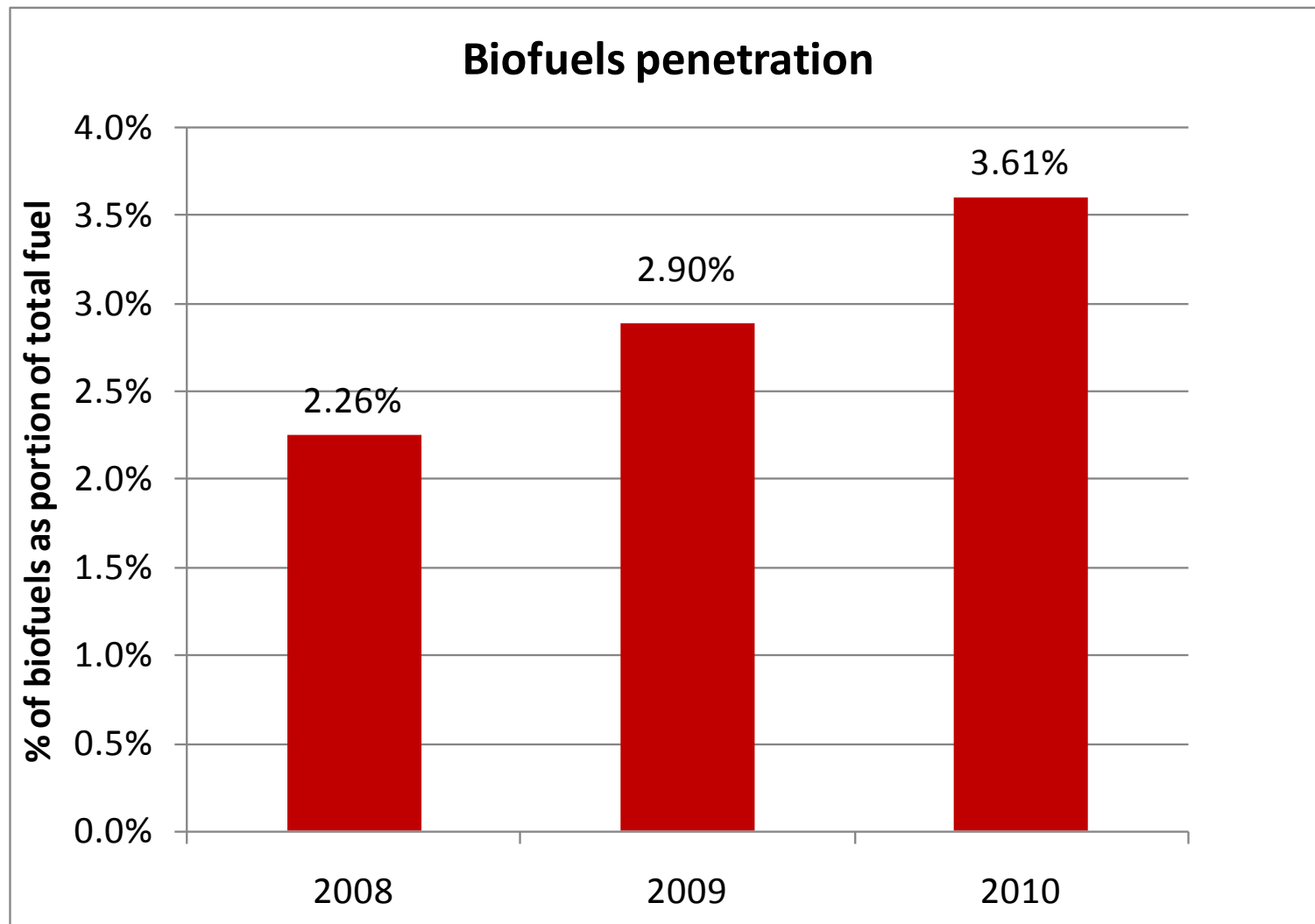
# The need for a step change?



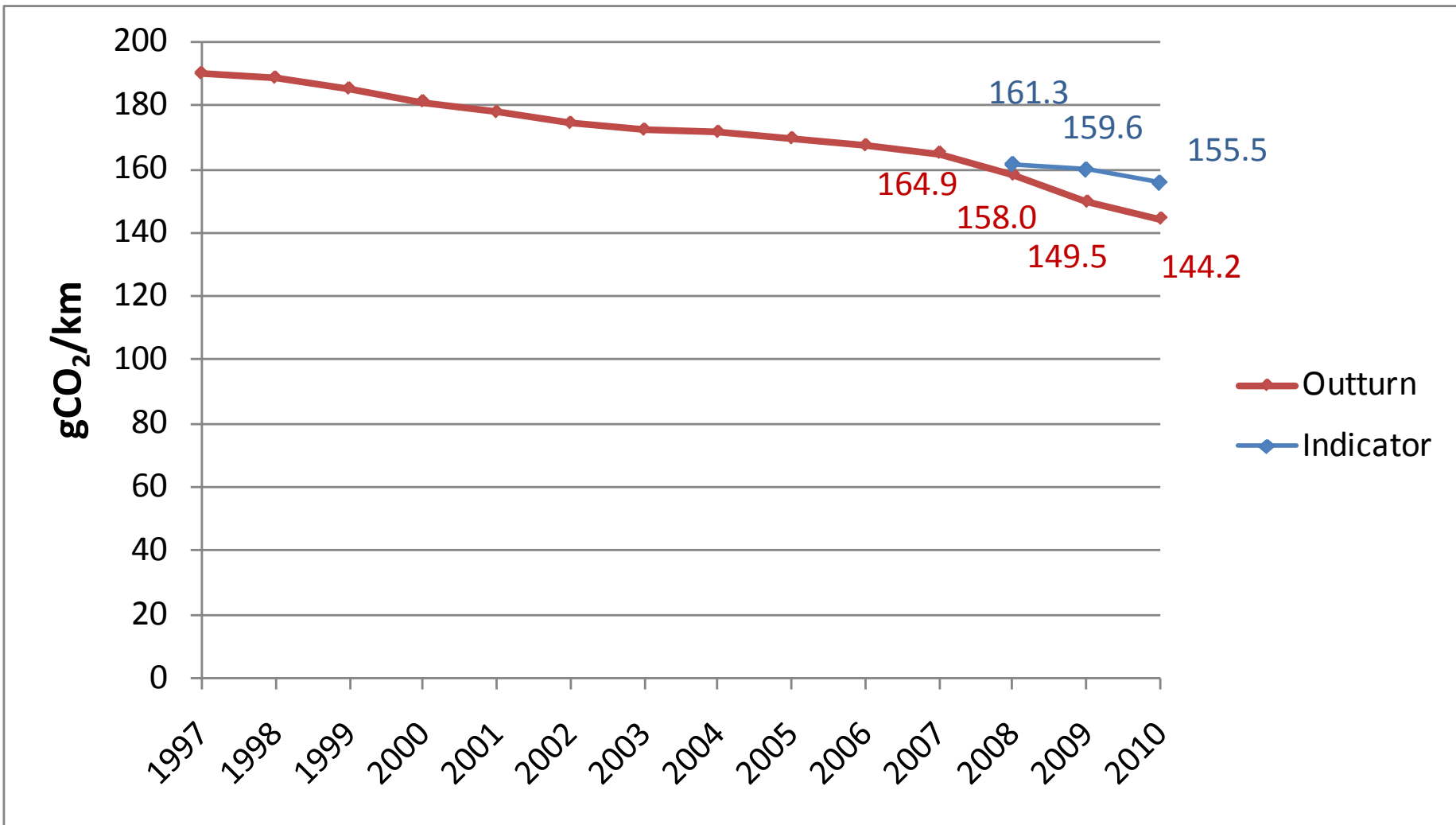
# Road transport vehicle-km fell 2.1% in 2010.



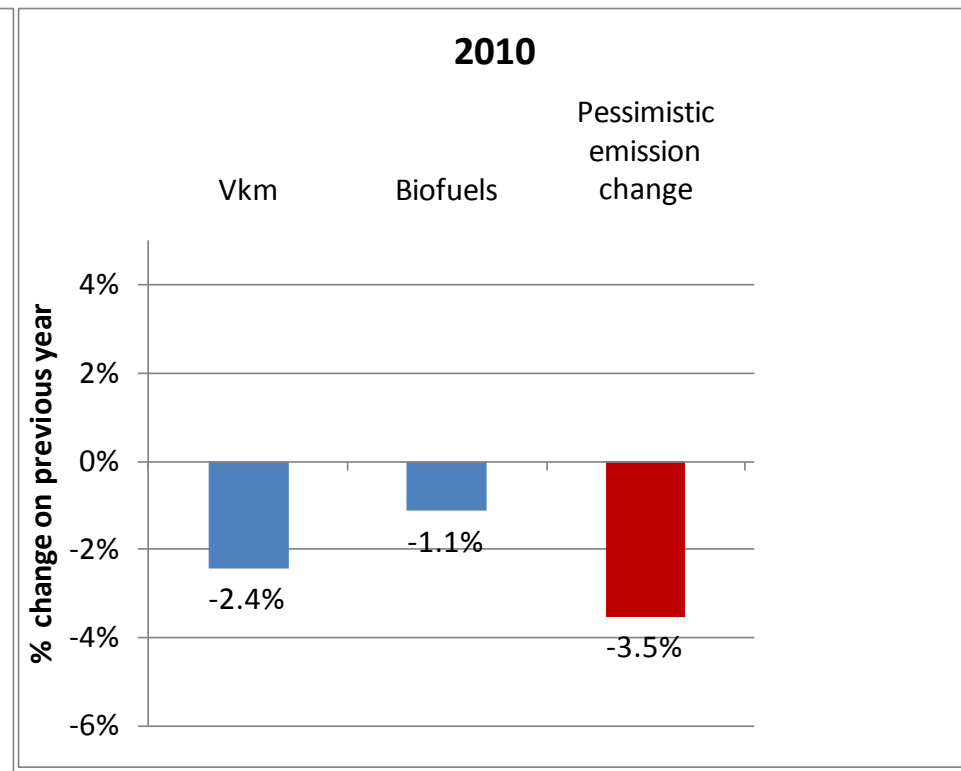
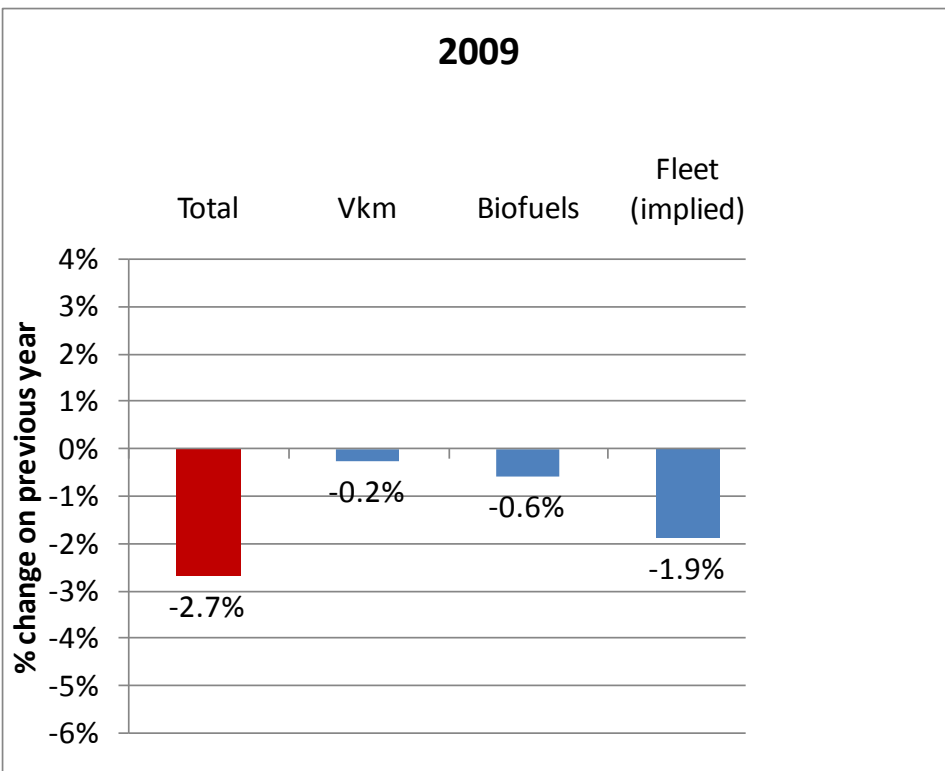
Biofuel penetration was 3.6% in 2010, up from 2.9% of total fuel in 2009.



# New car CO<sub>2</sub> decreased 5.4% in 2009 and 3.5% in 2010



# Fleet efficiency was biggest factor reducing car emissions in 2009; vehicle km was a key driver in 2010



- Sustaining progress on new vehicles as macroeconomic conditions change
- Implementing the EU vans framework
- Developing electric vehicle markets
- Changing consumer behaviour: smarter choices, eco-driving, enforcing speed limit

- The UK's 2050 target of an 80% emissions reduction remains appropriate. Implies 85% reduction excluding international aviation and shipping.
- By 2030 the UK should aim for a 60% reduction on 1990 excluding international aviation and shipping = a 46% reduction from today; this is a back ended path to 2050.
- Legislate the Domestic Action budget (1950 MtCO<sub>2</sub>e) now
  - Aim to deliver this through domestic abatement (without credits)
  - Precise mix of abatement effort to be determined in future as uncertainties are resolved
- Significant contribution from surface transport
- Challenge is to build on progress in 2009 and 2010, sustaining emissions reductions as the economy recovers and given possible fuel price changes, locking in to consumer behaviour change and developing electric vehicle markets.