



Strategy on reducing Heavy-Duty Vehicles' CO₂ emissions

Stakeholder meeting

16 September 2014

Addressing HDV CO₂ emissions

"Size" of problem

HDV emissions represent

**** +/- 25% of road transport CO₂ emissions***

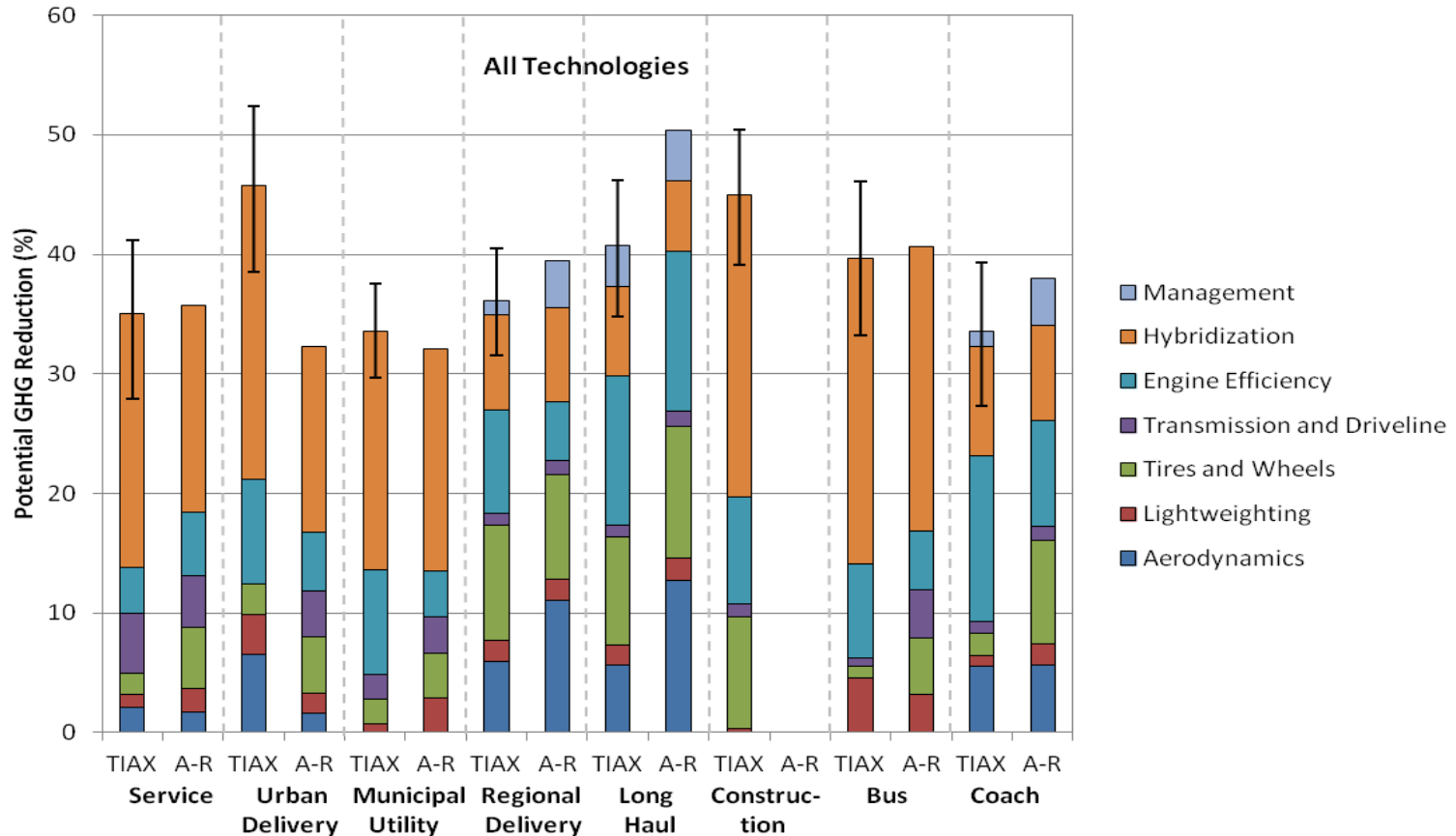
**** +/- 5% of EU total GHG emissions***

**** are not measured / recorded***

**** other countries have started acting (Japan, US, Canada, China)***

Addressing HDV CO₂ emissions

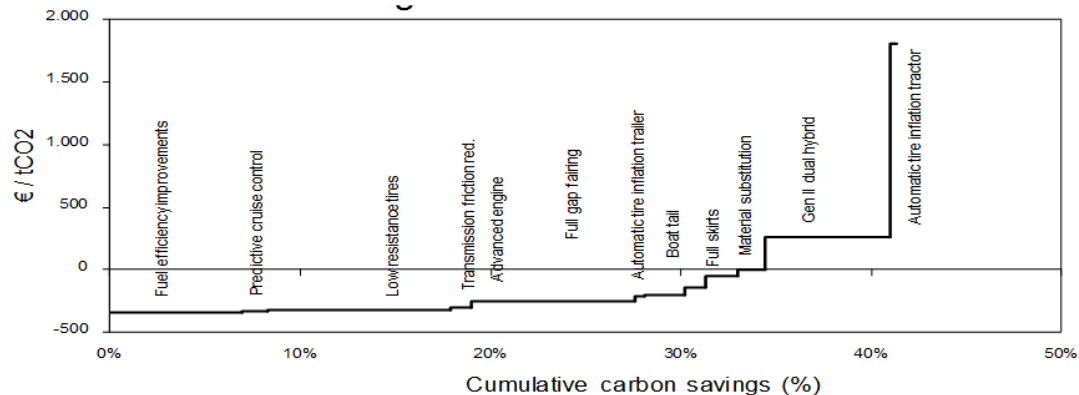
Potential for reducing HDV emissions



Addressing HDV CO₂ emissions

Cost efficient abatement potential

Example: Regional delivery truck cost curve



Project name	Capital cost (€)	Additional fuel saving percentage (%)	NPV (€)	Marginal abatement cost (€/tCO ₂)	Cumulative carbon savings (%)
Fuel efficiency improvements	-	6,9%	11.338	-343,41	6,9%
Predictive cruise control	81	1,4%	2.214	-331,29	8,3%
Low resistance tires	873	9,6%	14.949	-324,46	17,9%
Transmission friction red.	202	1,0%	1.484	-302,28	19,0%
Advanced engine	3.920	8,7%	10.329	-248,93	27,6%
Automatic tire inflation trailer	283	0,4%	431	-207,27	28,1%
Boat tail	1.414	2,2%	2.132	-206,45	30,2%
Full gap fairing	1.011	1,0%	709	-141,64	31,3%
Full skirts	2.425	1,7%	399	-48,48	33,0%
Material substitution	2.401	1,5%	22	-3,10	34,5%
Gen II dual hybrid	18.794	6,6%	-8.024	255,84	41,0%
Automatic tire inflation tractor	3.638	0,4%	-3.056	1.804,50	41,4%

Addressing HDV CO₂ emissions

Market barriers

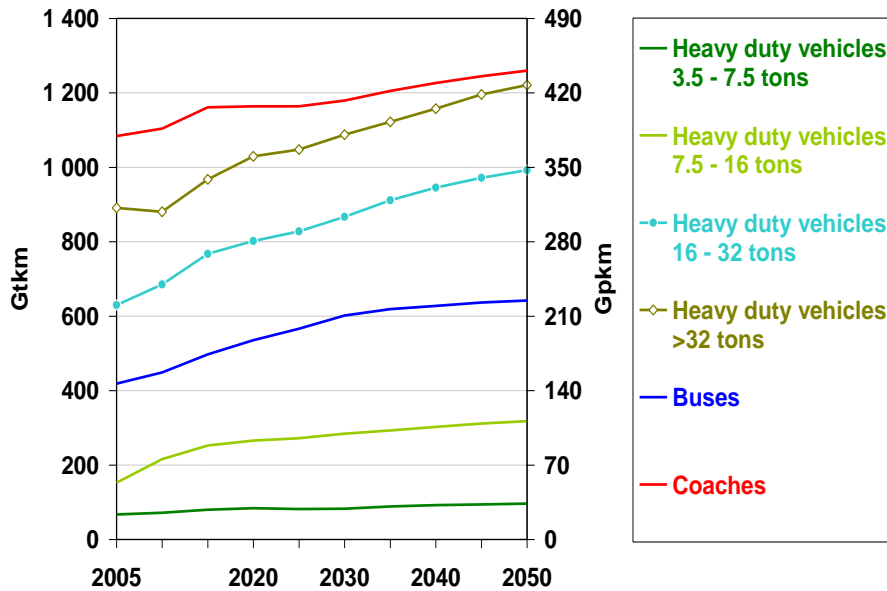
Complex to assess: many players inter-acting

- * *Knowledge gap*
- * *Short amortisation period of vehicles (+/- 3 Y)*
- * *Split incentives*
- * *Financing*
- * *Important second-hand market*
- * *Difference large companies vs micro firms*

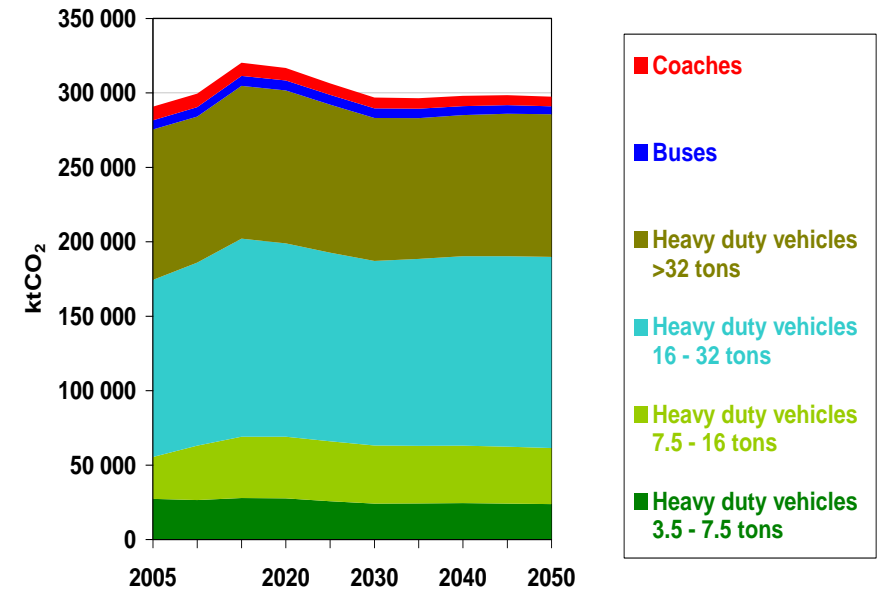
Addressing HDV CO₂ emissions

Baseline scenario: PRIMES-TREMOVE modelling

HDV Activity Gtkm / Gpkm



TTW emissions HDVs ktCO₂



Reducing HDV CO₂ emissions

Baseline scenario assessment

HDV transport would not significantly contribute to meeting EU GHG objectives and Transport White Paper specific objectives for transport (-60% by 2050 vs 1990)

Conclusion → Baseline "no policy change" scenario not compatible with EU objectives

Reducing HDV CO₂ emissions

Actions already initiated

Transport White Paper announced actions

- *continue R&D support, "green car initiative"*
- *review weights and dimensions legislation (Directive 96/53/EC, Regulation EC/661/2009 and Directive 2007/46/EC) (already proposed)*
- *reduce fuel GHG intensity, encourage alternative fuel infrastructure (already proposed)*
- *encourage modal shift and multi-modal freight*
- *review road user charging (Directive 2011/76/EU)*
- *transport carbon footprint : encourage certification, develop common standards. Footprinting initiative : on-going consultation*
- *reviewing restrictions on cabotage to increase load factor*

Reducing HDV CO₂ emissions

Discarded option

Fuel tax

- *Fuel already highly taxed*
- *2011 proposal for a revised Energy Taxation Directive including carbon pricing*

Reducing HDV CO₂ emissions

Adoption of Strategy Communication on 21/5/2014

Reducing HDV CO₂ emissions

Short term: *improving knowledge & transparency of HDV CO₂ emissions*

- finalise development of simulation tool*
- introduce certification & reporting legislation*

Likely impacts: more transparency in the market, more competition on HDV energy efficiency, reduced market barriers to uptake of fuel saving technologies.....

However: this will not be sufficient curb emissions in line with EU GHG 2050 objectives

Reducing HDV CO₂ emissions

Medium- to long-term

- Several possible actions considered: emission limits as in the case of cars and vans, economic instruments (ETS....).
- No policy choice yet.
- To be assessed in due course.



Thank you for your attention