

# Effort Sharing Decision

## Introduction to EU policies and measures in the road transport sector



## Road transport emissions

- Approx. 875 Mt CO<sub>2</sub> eq. in 2011 (*~ 1/3 of all ESD emissions, ~ the same share as in EE, FI, LV*)

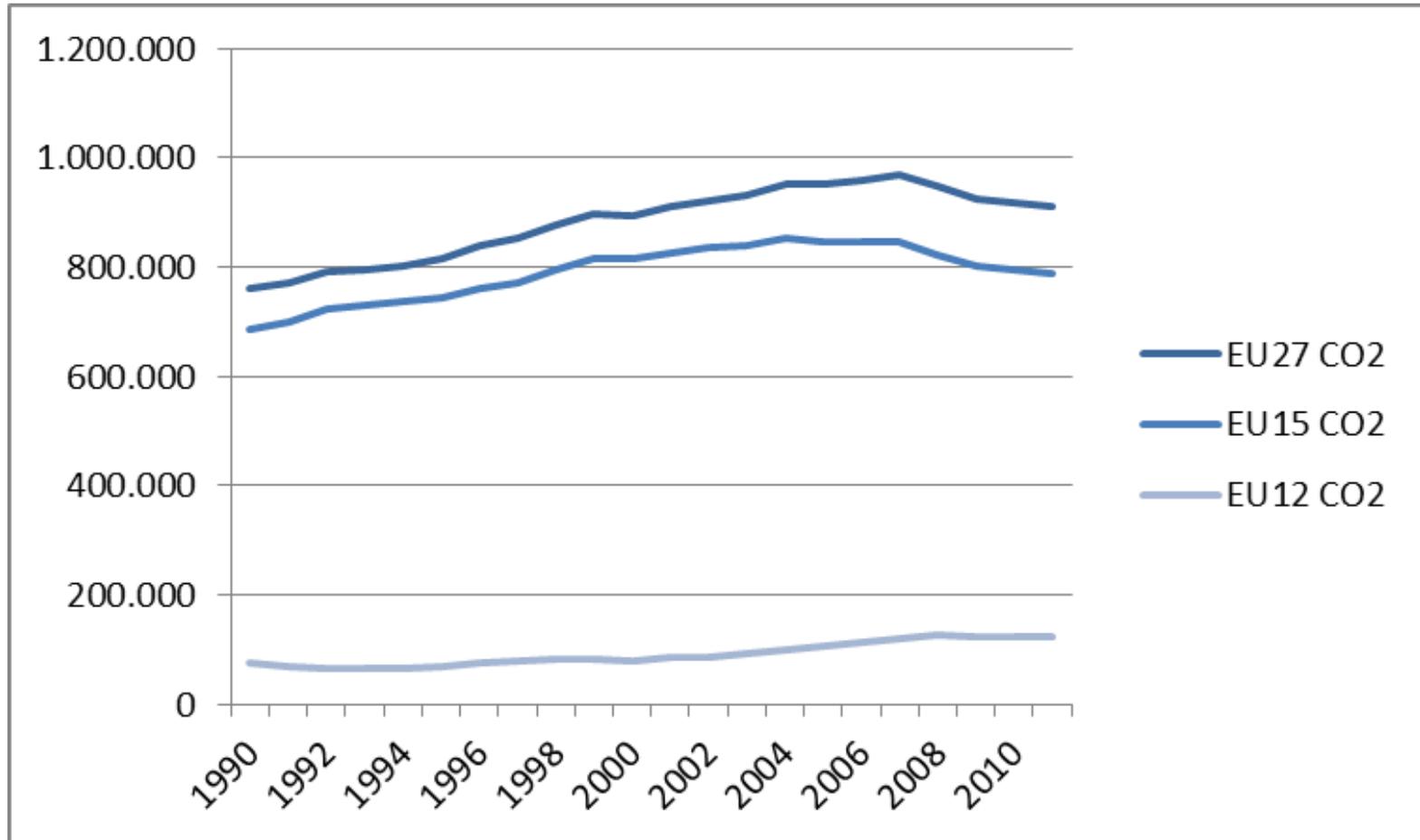
*[Plus ~ 130 Mt CO<sub>2</sub> eq. of refinery emissions in the EU ETS]*

Of this:

- **Powered two wheelers** *≈ 1%*
- **Heavy Duty Vehicles (HDV)** *≈ 30%*
- **Light Duty Vehicles (LDV)** *≈ 70%*

*Exact split LDV-HDV unknown because diesel consumed in both.  
Expectation is that LDV emissions are decreasing as a result of regulations while HDV emissions are probably increasing due to the absence of regulation and increasing activity.*

# EU road transport CO<sub>2</sub> trends



<http://www.eea.europa.eu/publications/ghg-trends-and-projections-2012>

# EU transport emissions: drivers



Steady increase in CO<sub>2</sub> emissions from passenger cars from 1990 to 2000:

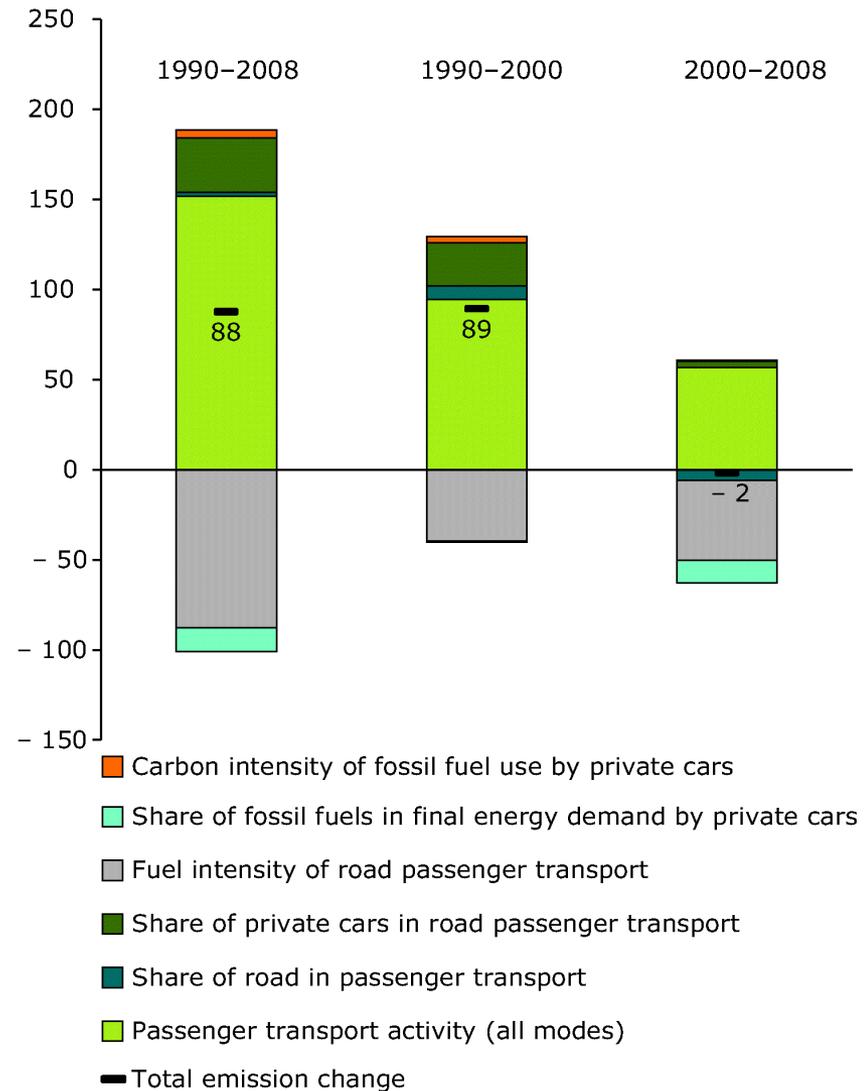
- sustained growth in transport demand
- increasing share of road compared with other modes

Trend stabilisation between 2000 and 2008

- significant reduction of the growth in transport demand
- fuel and GHG efficiency improvements: technological improvements, dieselisation, biofuel blending.

Source: European Environment Agency WG2 presentation, 5 May 2014

Mt CO<sub>2</sub>-equivalent





# Options to reduce transport GHG

- There are a wide range of options to reduce transport GHG emissions.
- Many measures can deliver GHG reduction benefits with negative costs (i.e. benefits) to the society.
- Co-benefits are important (health / air quality co-benefits are often overlooked but can be large).
- As regards interaction between congestion and GHG, only 3 measures appear effective at reducing both – pricing, land use planning and speed.
- Embedded GHG emissions are important – they can be a large part of total GHG emissions from construction and use.



# Technical and non-technical

**Technical** measures – improve energy efficiency; promote lower GHG per energy.

**Non-technical** measures – (1) reduce the need to travel [e.g. e-commerce, e-government; teleworking, etc.], (2) encourage shift of modes [e.g. planning and management of transport system; pricing; modal choice, etc.] and (3) encourage to be more efficient [e.g. speed limits, eco-driving, etc.].

**Note:** Technical options can take substantial time to have an impact due to fleet lifetime, etc. Many non-technical measures can have a quicker impact since they influence all users.



## **Some options more appropriate at EU level:**

E.g. vehicle and fuel standards because of single market

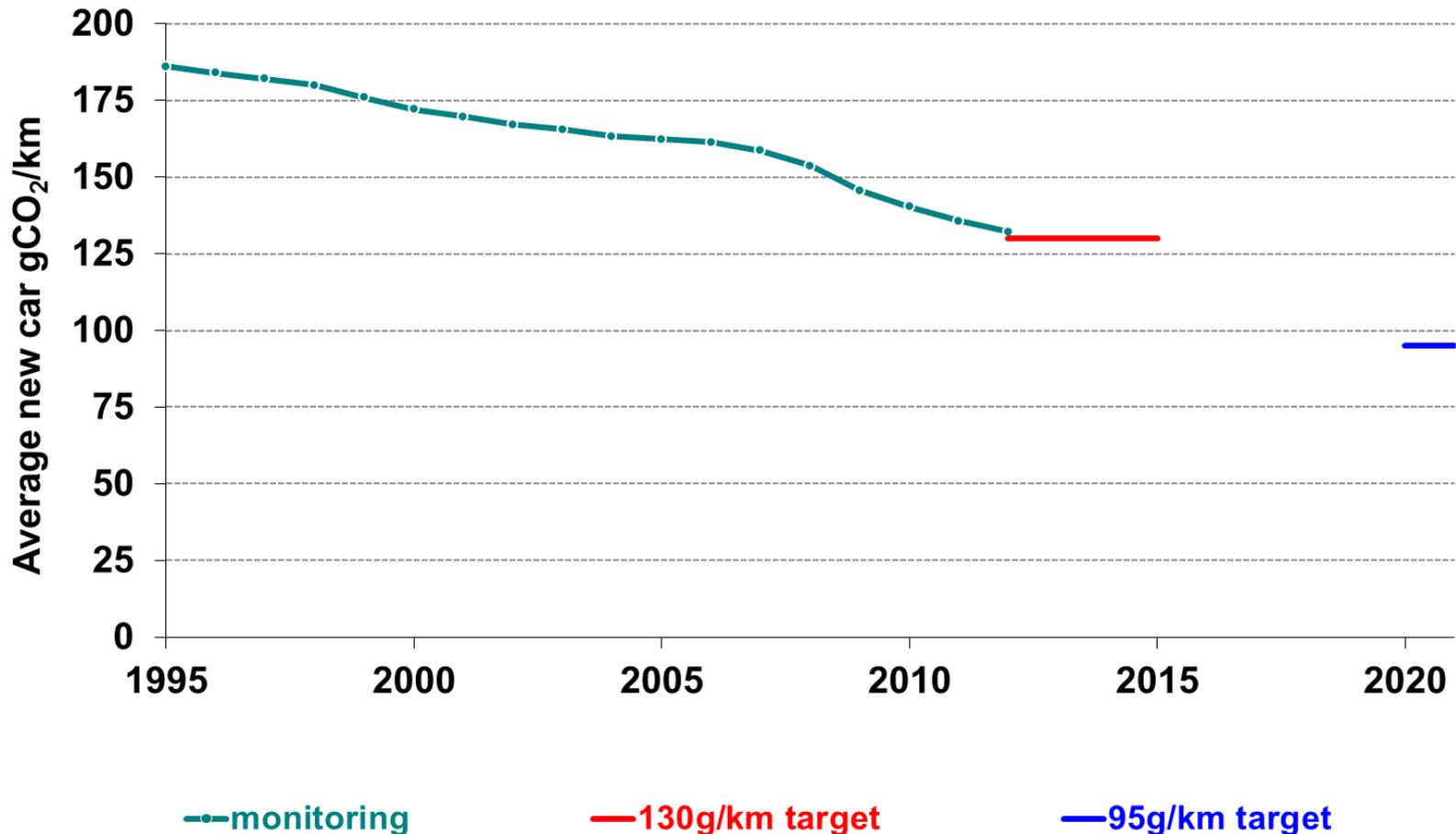
## **Some options more appropriate at national or local level:**

E.g. tax reform (e.g. fuel and company car), speed enforcement and lower speed limits, pricing externalities, parking policy and pricing, provision of information (e.g. eco-driving), improving and encouraging public transport and biking, better land use planning

## Light Duty Vehicle CO<sub>2</sub> Regulations

- Two Regulations set new vehicle average fleet CO<sub>2</sub> targets for the EU:
  - **Regulation (EC) 443/2009** establishes new car CO<sub>2</sub> targets of **130g CO<sub>2</sub>/km for 2015** and **95g CO<sub>2</sub>/km for 2021** and modalities for achieving them.
  - **Regulation (EU) 510/2011** establishes new light commercial vehicle targets of **175g CO<sub>2</sub>/km for 2017** and **147g CO<sub>2</sub>/km for 2020** and modalities for achieving them.
- These are complemented by legislation on labelling and monitoring.
- Their impact will come with a delay to LT, EE, LV due to older fleets.

## Monitoring EU new car CO<sub>2</sub> emissions



## Light Duty Vehicles CO<sub>2</sub> Regulations beyond 2020

- Regulations request the Commission to bring forward a report by December 2015 and if appropriate proposals to establish targets beyond 2020:  
*"based on an assessment of the necessary rate of reduction in line with the Union's long term climate goals..."*
- Commission has started work to prepare for post 2020 LDV Regulation proposals.
- A number of studies are underway to expand and update technical knowledge before preparation of the Impact Assessment and proposal.
- A consultation with stakeholders will be launched shortly.

## Reduction in GHG intensity of fuel used in road vehicles

- The **Fuel Quality Directive (EC) 2009/30** imposes a binding target on (fossil) fuel suppliers to reduce life cycle GHG emissions from fuel supplied by 6% by 2020.
- Implementation of the provisions to bring this into force is on-going.
- **Renewables Directive 2009/28/EC** requires at least 10% share of energy from renewable sources in all forms of transport in 2020 (e.g. sustainable biofuels in the road transport)

- There is a lot of potential to reduce transport GHG emissions at low cost while bringing other important societal benefits.
- Technical measures largely more applicable at EU level – single market.
- Many non-technical measures more readily applicable at local/national level
- Any additional EU-wide technical legislation (beyond those already adopted) would not have significant effect on overall emissions before 2020, especially for LV, EE, LT.
- Non-technical transport measures have more rapid effect and there is a considerable scope for additional measures at Member State level that could reduce emissions by 2020



## Links to some relevant EU policies and studies

### DG CLIMA web pages:

Transport: [http://ec.europa.eu/clima/policies/transport/index\\_en.htm](http://ec.europa.eu/clima/policies/transport/index_en.htm)

Road: [http://ec.europa.eu/clima/policies/transport/vehicles/index\\_en.htm](http://ec.europa.eu/clima/policies/transport/vehicles/index_en.htm)

Cars: [http://ec.europa.eu/clima/policies/transport/vehicles/cars/index\\_en.htm](http://ec.europa.eu/clima/policies/transport/vehicles/cars/index_en.htm)

LCVs: [http://ec.europa.eu/clima/policies/transport/vehicles/vans/index\\_en.htm](http://ec.europa.eu/clima/policies/transport/vehicles/vans/index_en.htm)

### *EU transport GHG: Routes to 2050?* Project

Main page: [www.eutransportghg2050.eu](http://www.eutransportghg2050.eu)

Reports: <http://www.eutransportghg2050.eu/cms/reports/>

### Papers on non-technical options to reduce transport GHG:

<http://www.eutransportghg2050.eu/cms/assets/EU-Transport-GHG-2050-Paper-4-Operational-options-18-12-09-FINAL.pdf>

<http://www.eutransportghg2050.eu/cms/assets/EU-Transport-GHG-2050-Paper-5-Modal-split-and-decoupling-options-22-12-09-FINAL.pdf>

<http://www.eutransportghg2050.eu/cms/assets/EU-Transport-GHG-2050-Paper-7-Economic-Instruments-9-01-10-FINAL.pdf>

<http://www.eutransportghg2050.eu/cms/assets/EU-Transport-GHG-2050-Paper-8-Infrastructure-08-03-10-FINAL.pdf>

<http://www.eutransportghg2050.eu/cms/assets/EU-Transport-GHG-2050-Paper-9-Awareness-and-innovation-19-11-09-FINAL.pdf>

### DG MOVE urban mobility web pages:

[http://ec.europa.eu/transport/themes/urban/ump\\_en.htm](http://ec.europa.eu/transport/themes/urban/ump_en.htm)

### Sustainable Urban Mobility Plans:

[http://ec.europa.eu/transport/themes/urban/doc/ump/com\(2013\)913-annex\\_en.pdf](http://ec.europa.eu/transport/themes/urban/doc/ump/com(2013)913-annex_en.pdf)