



# **Aluminium industry's view on revision of Regulations 443/2009 and 510/2011**

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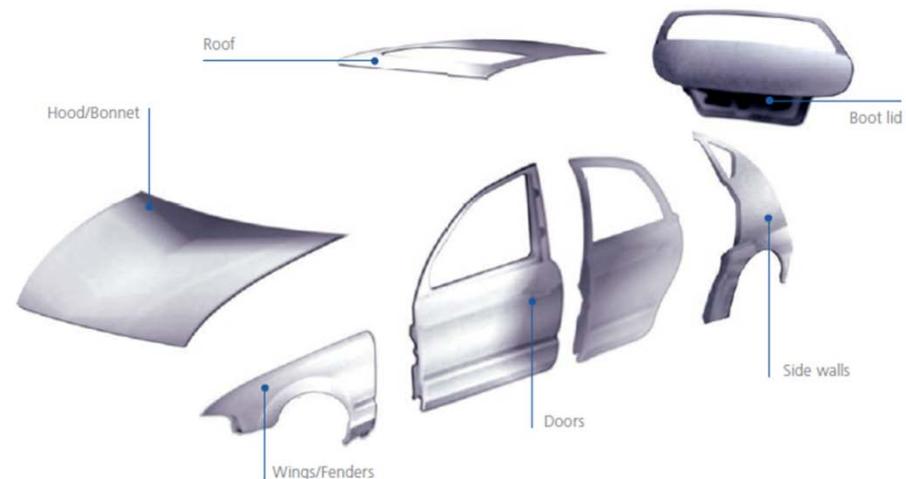
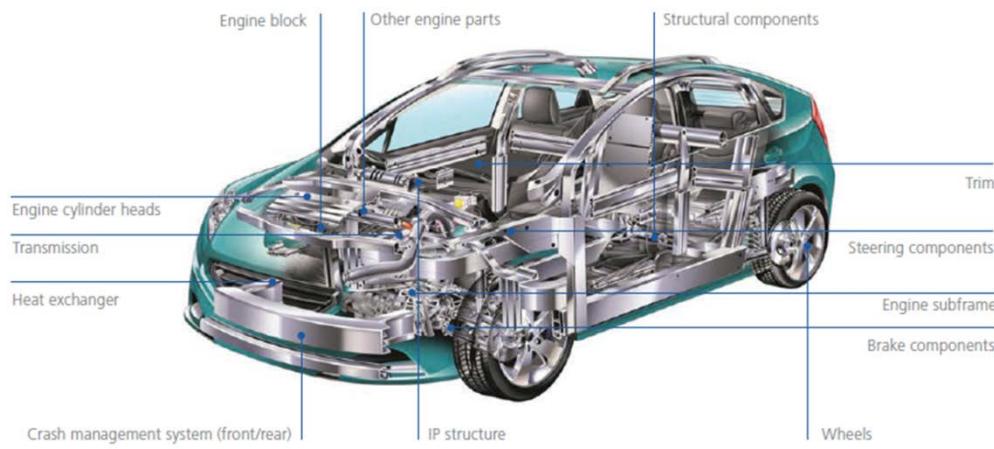
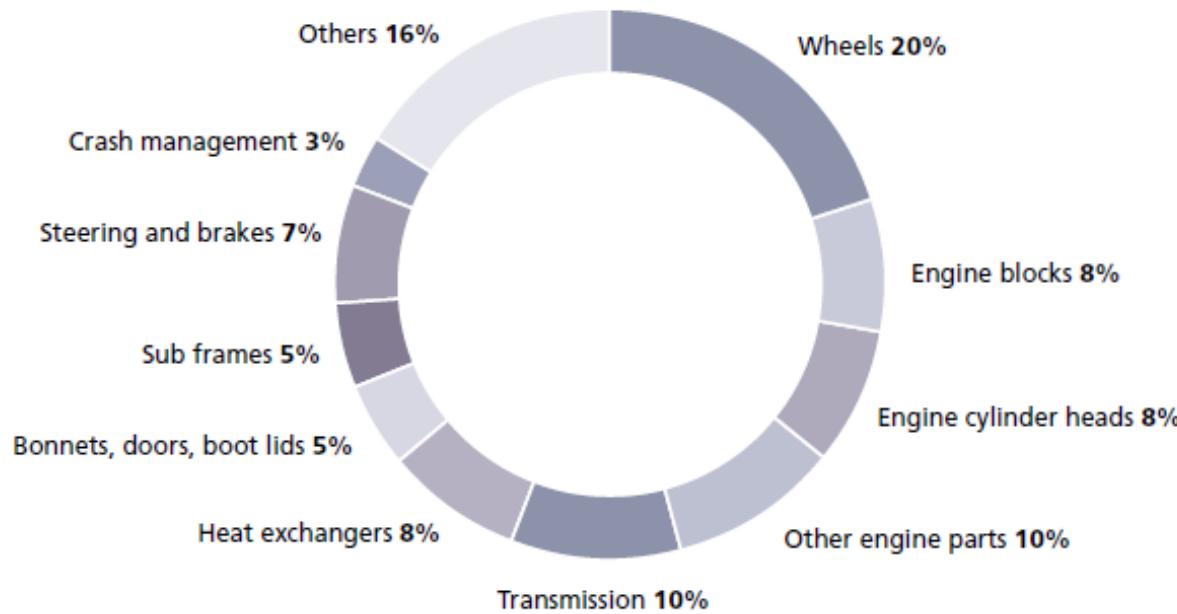
# The European Aluminium Association

*EAA integrates the whole aluminium value chain:*

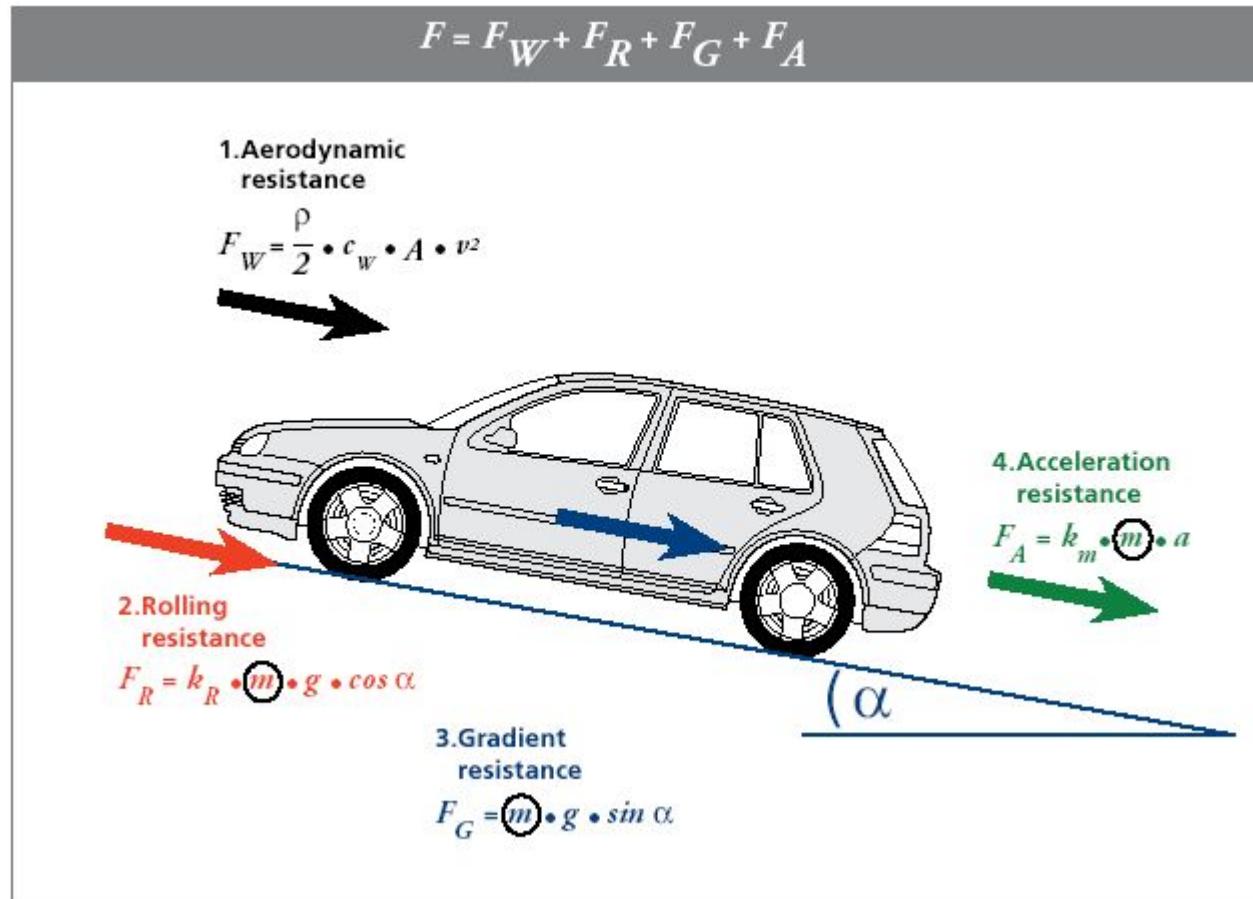
- Primary aluminium
- Rolling or lamination
- Extrusion or profiles production
- Foil or thin laminates
- Recycling
- 18 National associations

**255.000 direct jobs**

# Aluminium can be used in the entire car

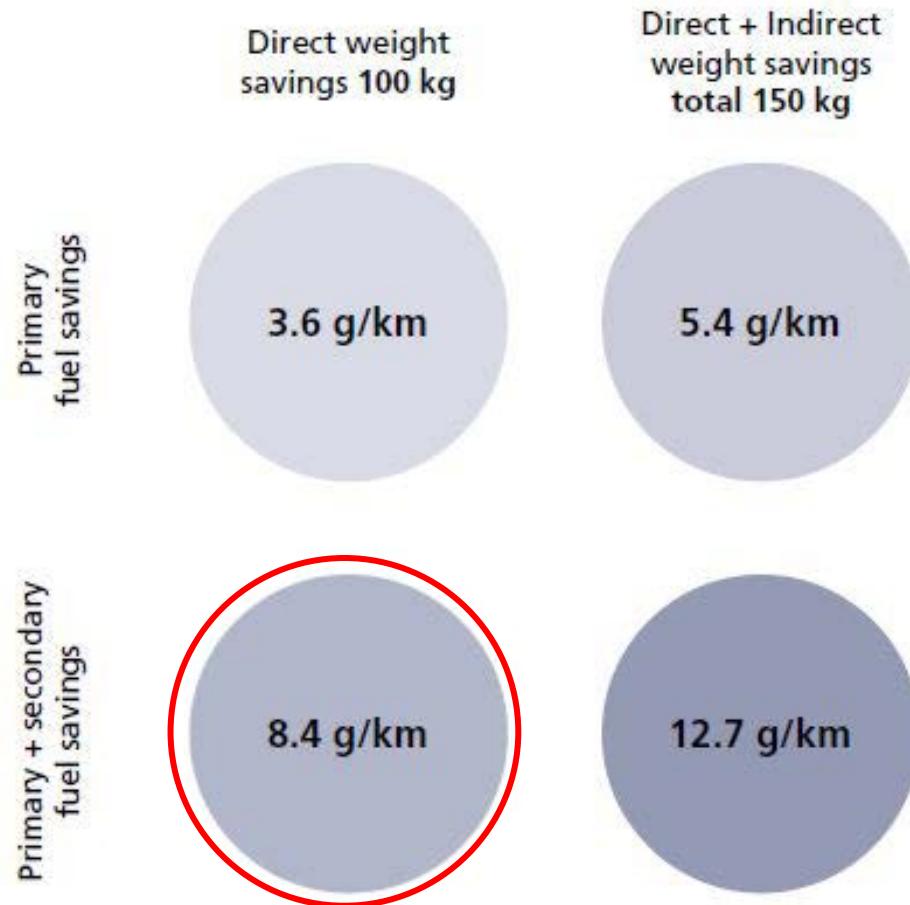


# Mass impact on CO<sub>2</sub> emissions



The energy required to move a vehicle is, except for aerodynamic resistance, directly proportional to its mass

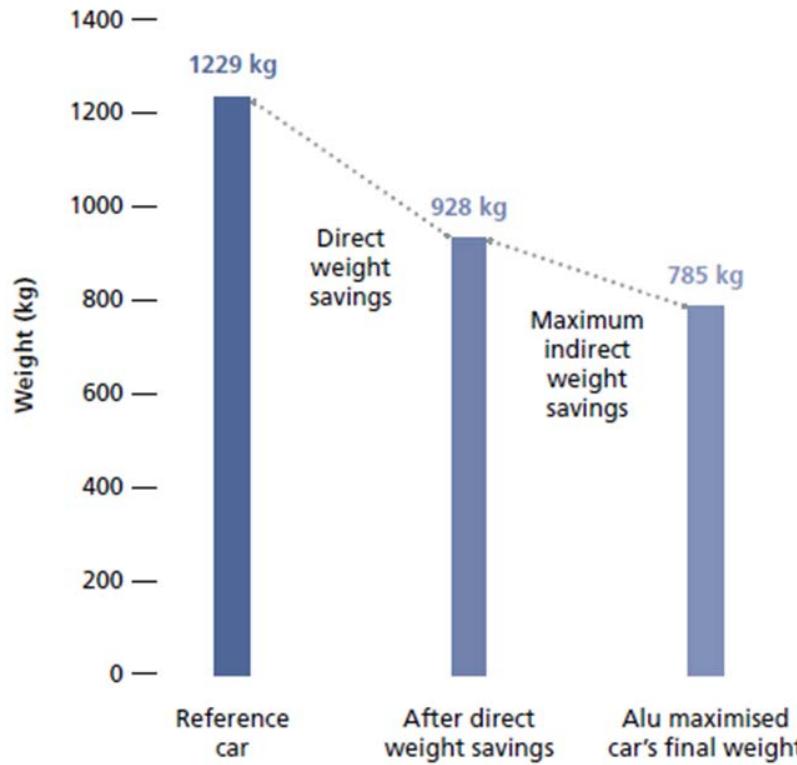
# Lightweighting reduces CO<sub>2</sub> emissions\*



\*Tailpipe emissions

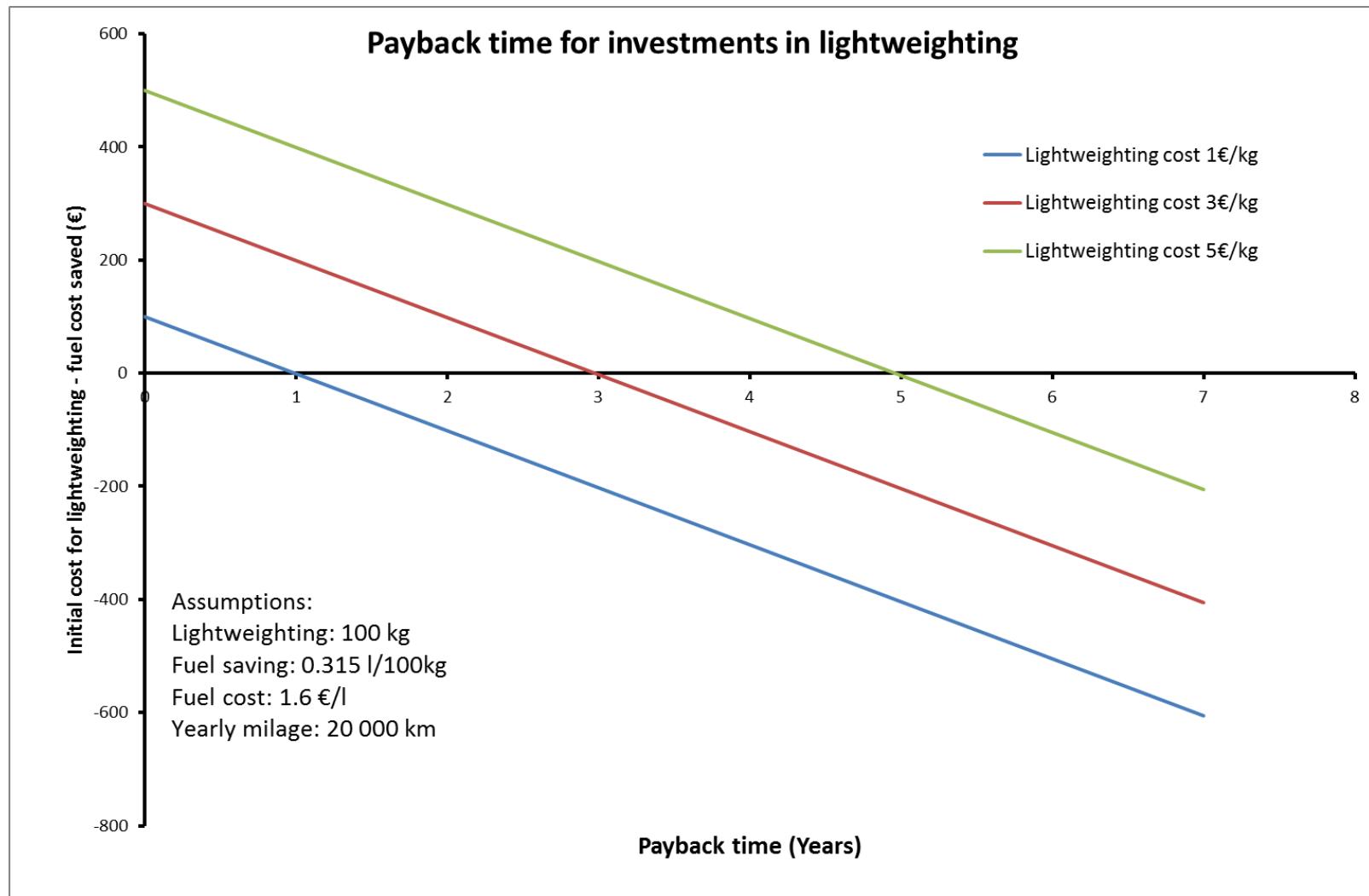
Source: On the calculation of fuel savings through lightweight design in automotive life cycle assessments, Christoph Koffler & Klaus Rohde-Brandenburger. International Journal of Life Cycle Assessment (2010) 15:128-135

# An impressive light-weighting potential

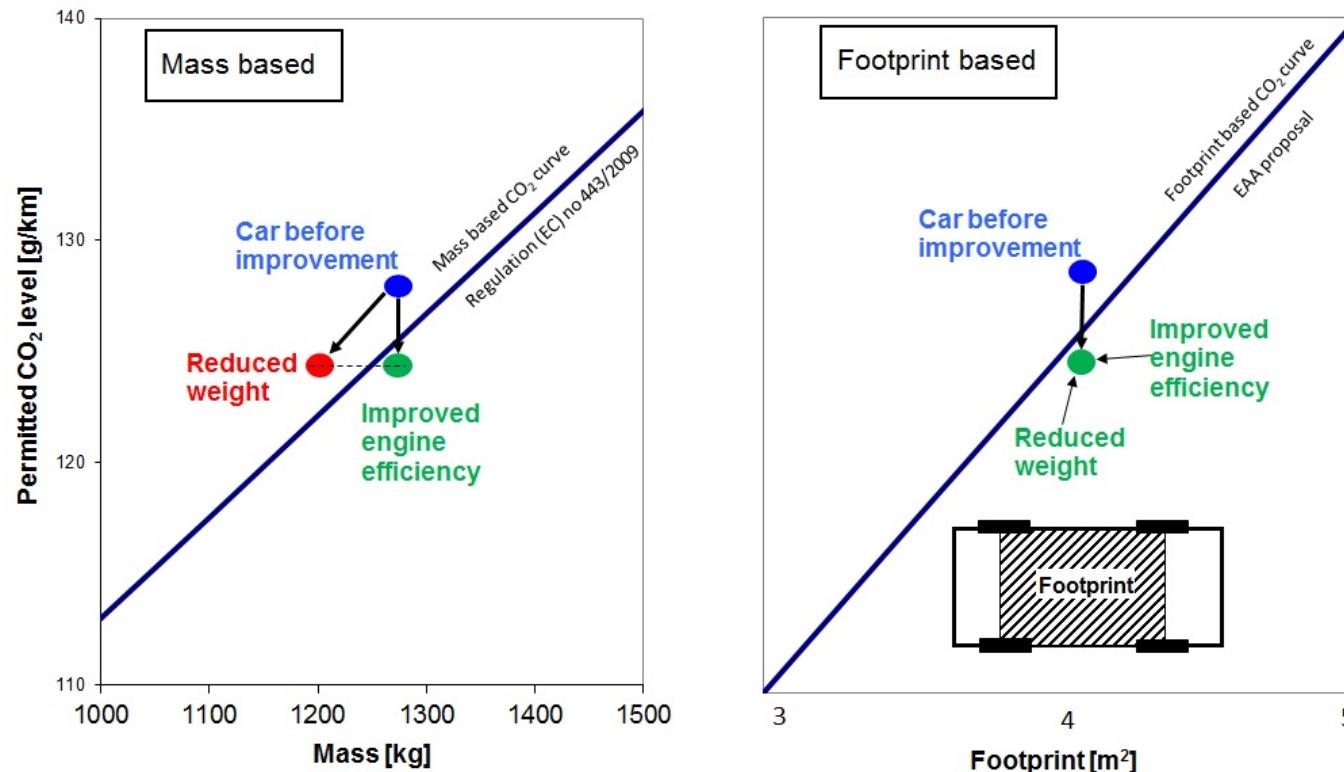


- *Alu-maximized car study* 
- *Stiffness & crash relevance of car body parts*: up to 40% weight saving
- *SuperLIGHT-Car project*: midsize car body 100kg or 35% lighter

# A cost efficient way to reduce CO<sub>2</sub> emissions



# Choice of utility parameter for the 2020 target



- A mass based regulation is obviously **not technology neutral**
- Weight reduction not as beneficial as other measures
- The EC impact assessment shows that the additional cost for reaching the 95 g target would be lower with a footprint based regulation

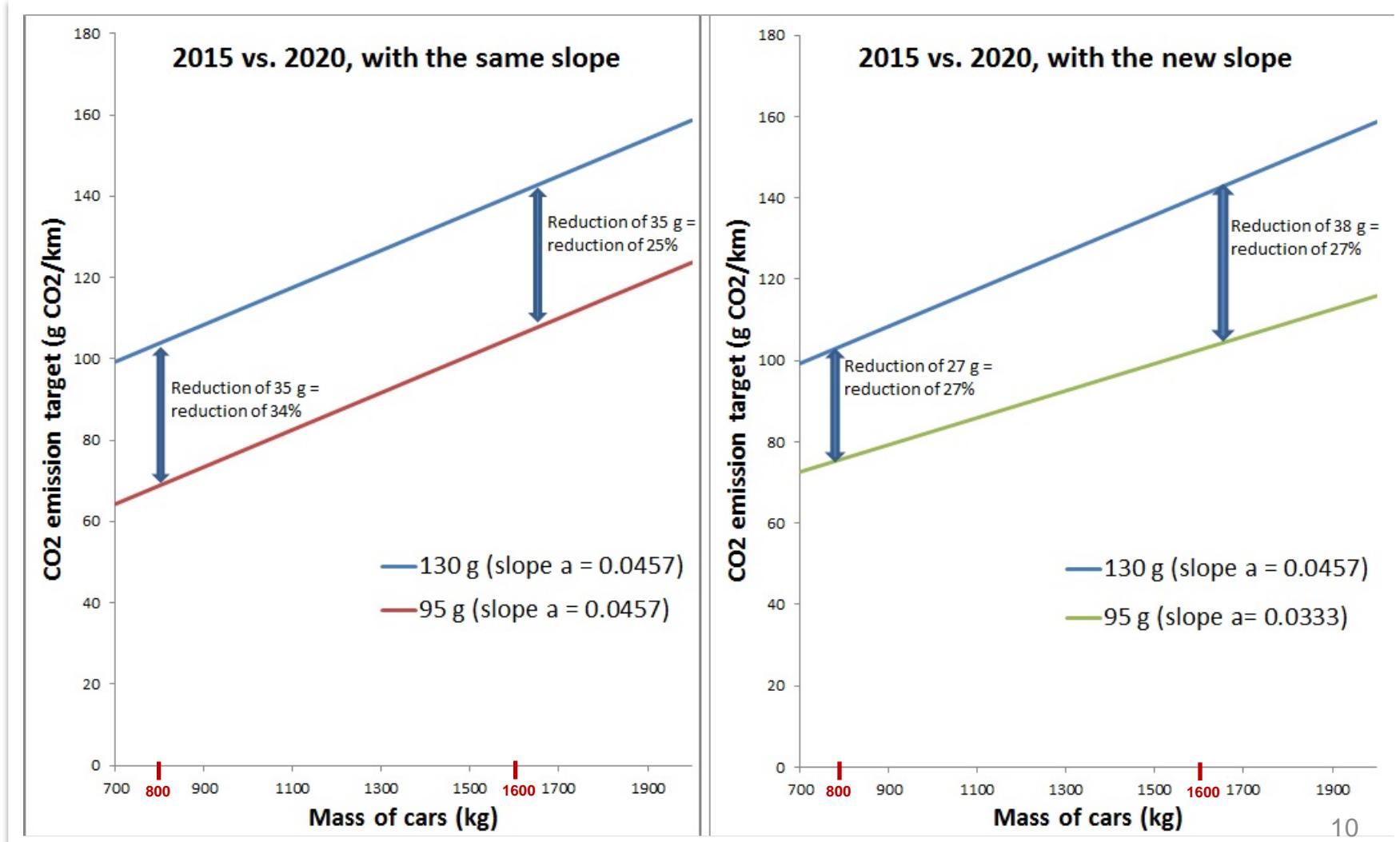
# If mass is kept as utility parameter for 2020

Important to also adapt the slope of the curve

**Commissioner Hedegaard:** *If one person weigh 90 kg and another weigh 160 kg it would not be fair to ask them to reduce their weight with the same number of kilos. And the same was true for the cars regulation; it would not be fair to ask a manufacturer of a light car to reduce their CO2 emissions with the same number of grams per km as the manufacturer of a heavy car.*

- A reduction from 130 to 95g/km is a reduction of 27%.
- It would be fair to ask all manufacturers to reduce their emissions with 27%
- If the slope is adapted to 0.0333, this is true (0.0457 reduced by 27%)
- If the slope stays at 0.0457, smaller cars are penalised

# Effect of different slopes in cars regulation



# CO<sub>2</sub> from vans

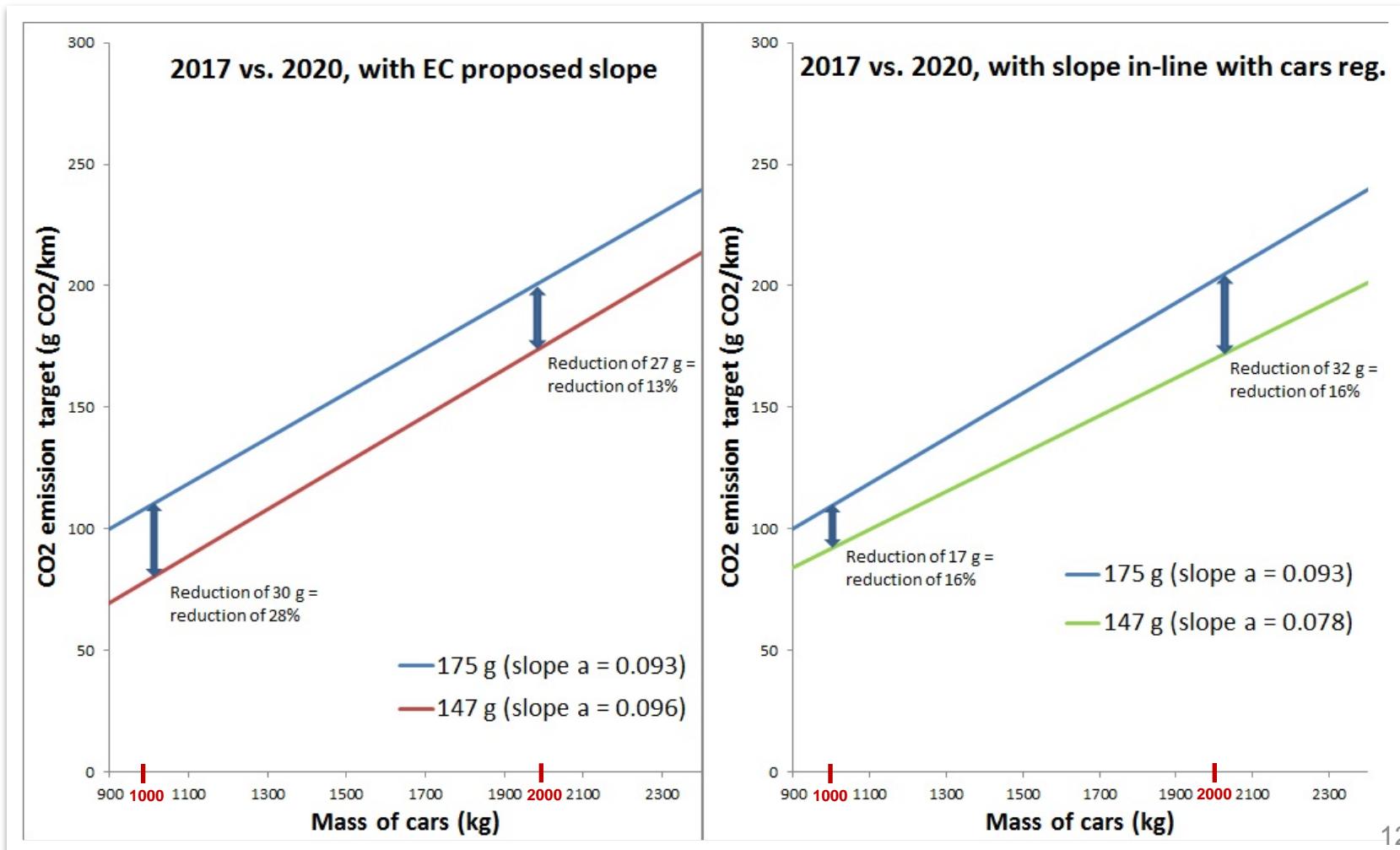
The commission proposes to increase the slope for the 2020 regulation

- Small vans are punished
- The original agreement on the burden sharing mechanism from 2010 is not respected

**The slope of the vans regulation must be calculated in the same way as the cars regulation!**

# Effect of different slopes in vans regulation

EC proposal contradicts the explanation of Commissioner Hedegaard



***Unlocking the light-weighting potential helps achieving future targets at a lower costs***





**Thank you for your  
attention**

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