

Setting the Scene: Technology Potential to Reduce CO₂ Emissions from Cars

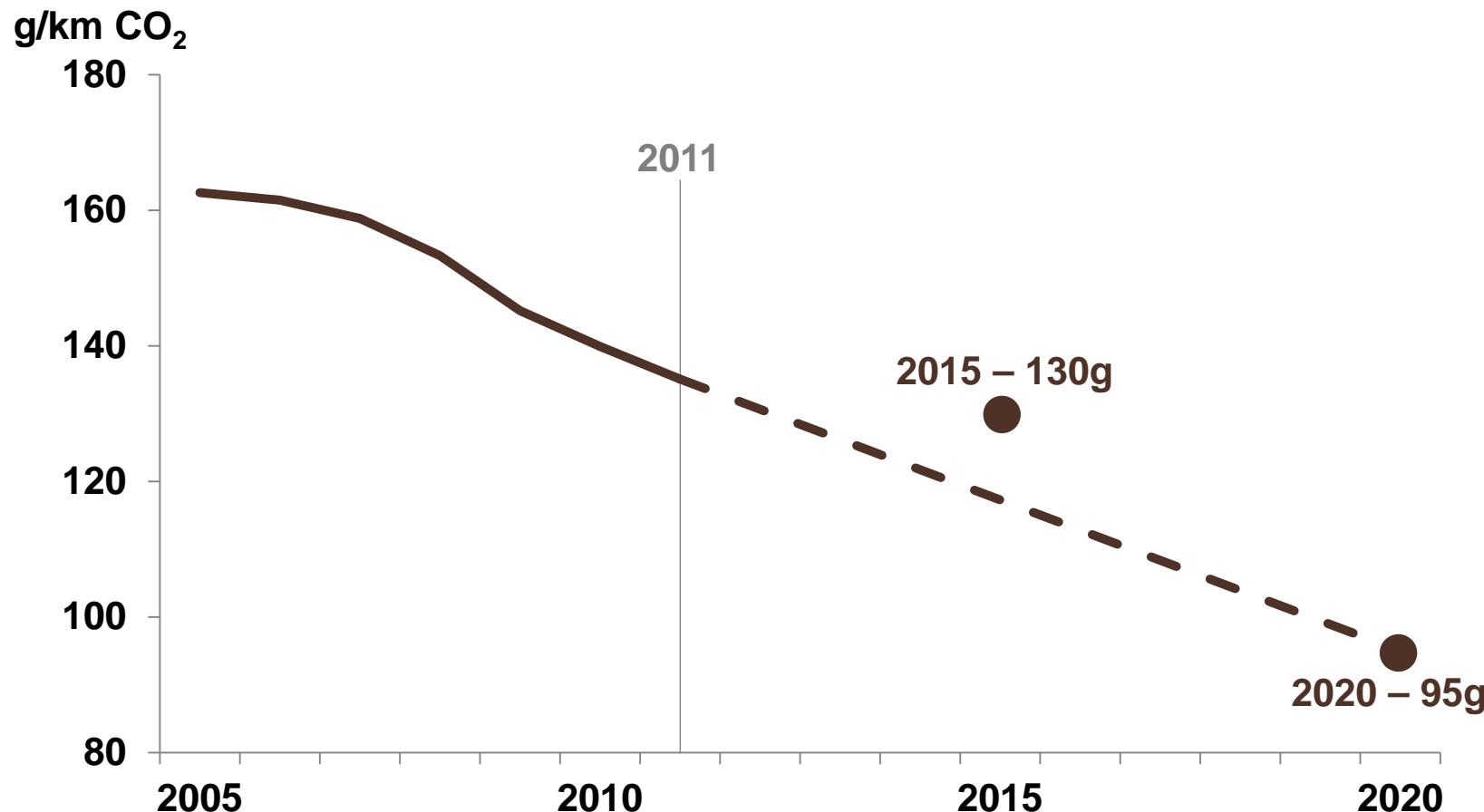
Moving to a Low Carbon Road Sector
Effective Solutions to “Lighten the Load” (EAA lunch debate)

Dr. Peter Mock

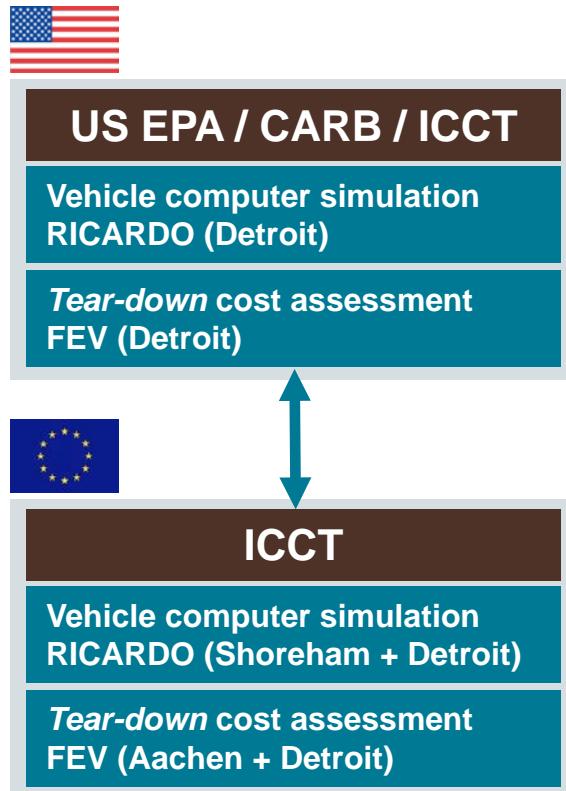
November 7, 2012

Brussels

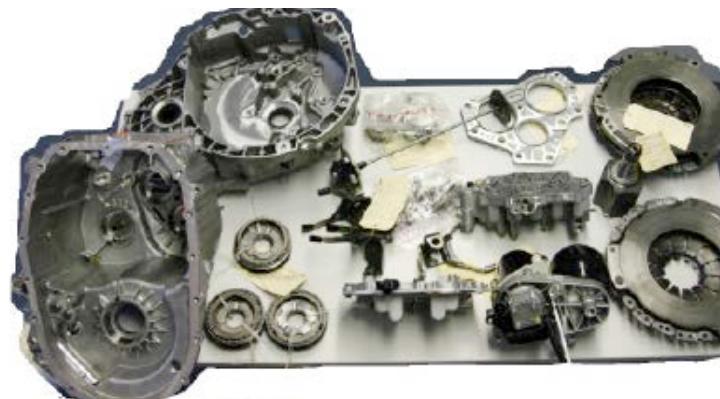
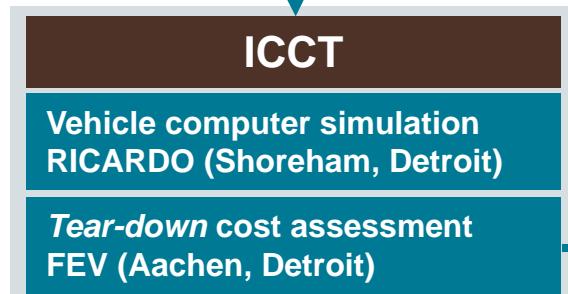
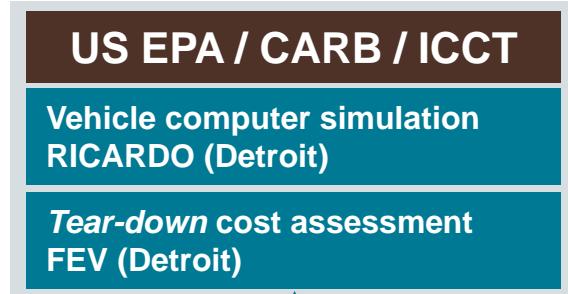
CO₂ regulation shows effect: 2015 target will be exceeded; we are on a good way to 2020.



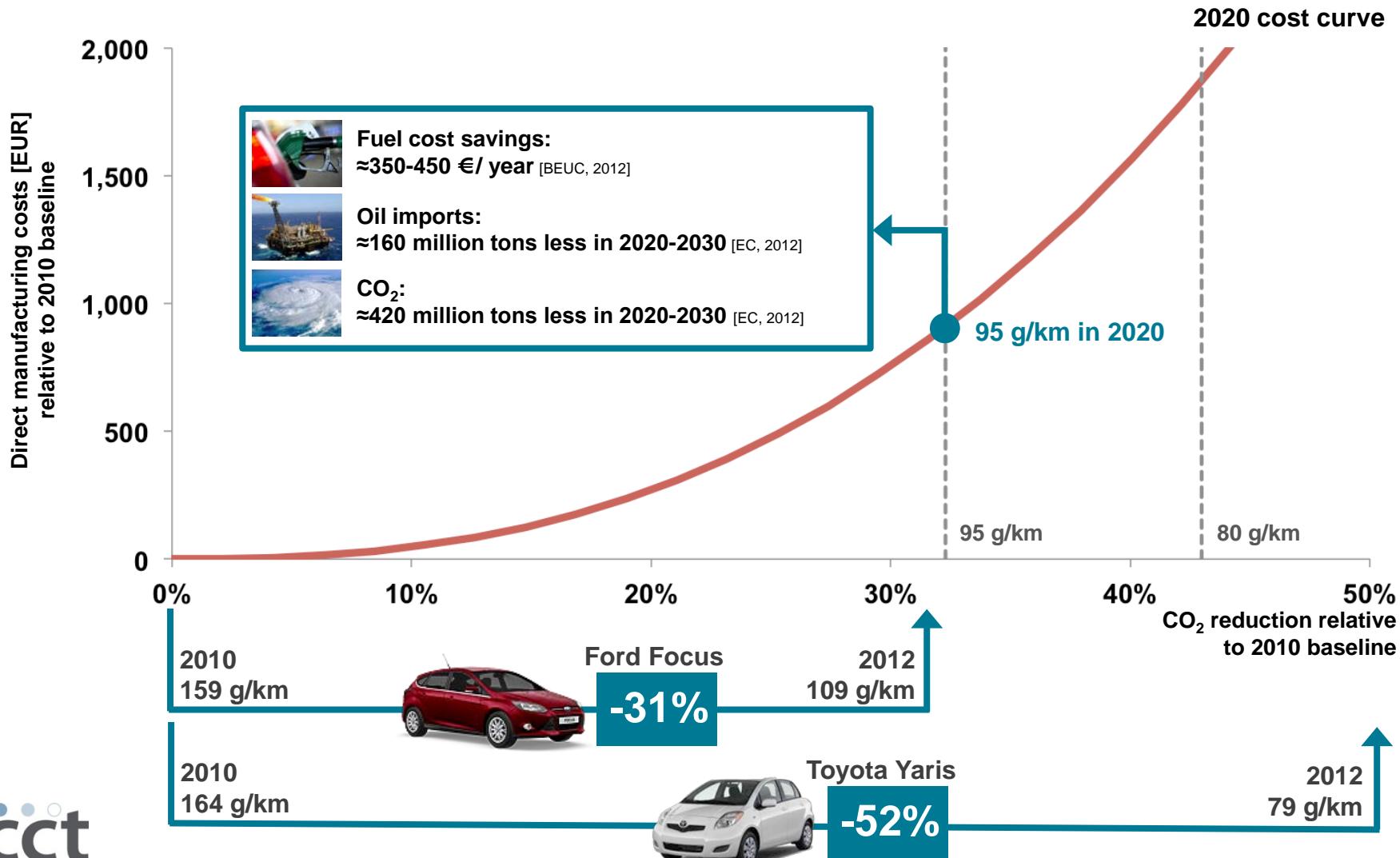
Significantly improved method to assess CO₂ reduction potential and costs of technologies.



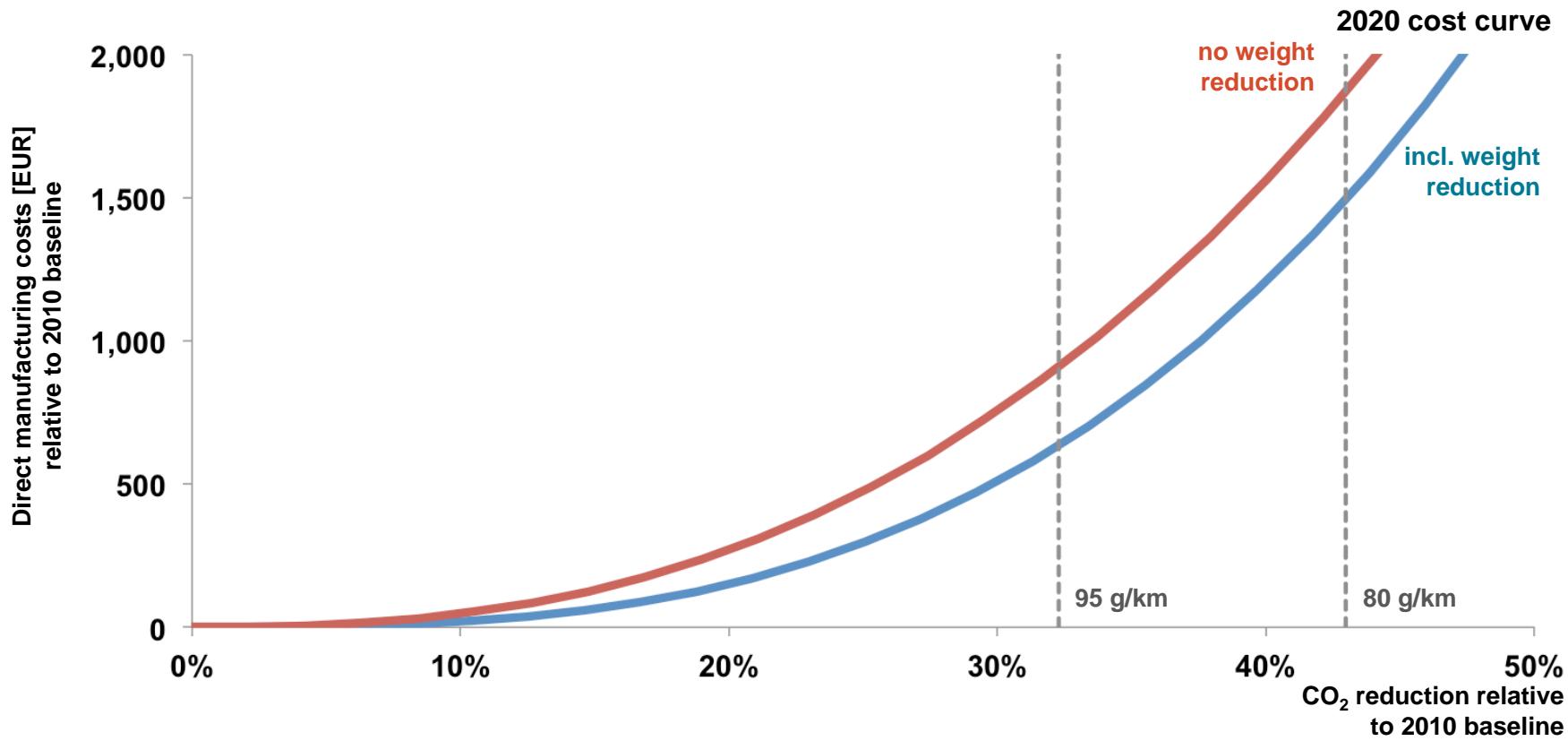
Significantly improved method to assess CO₂ reduction potential and costs of technologies.



30% CO₂ reduction without hybrid vehicles. About 2 year amortisation period.

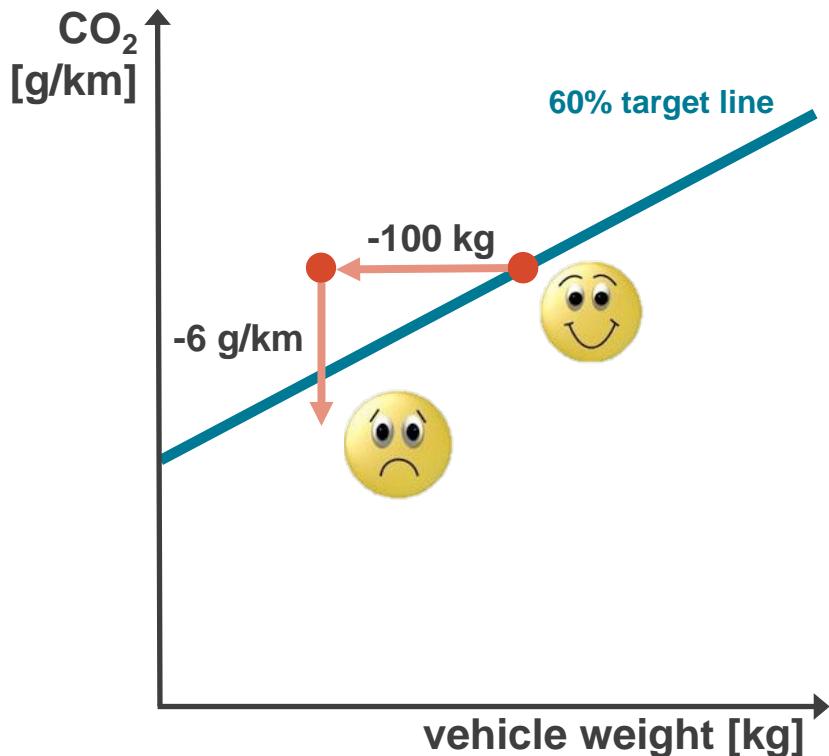


30% CO₂ reduction without hybrid vehicles.
About 2 year amortisation period.

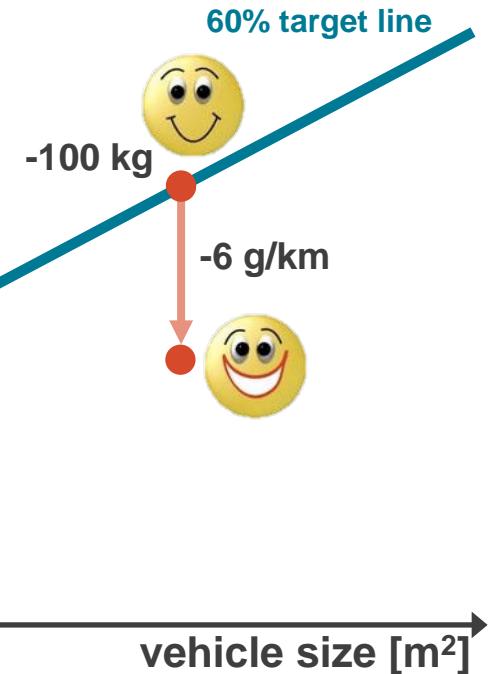


Weight-based system strongly reduces weight reduction incentive; not technology neutral.

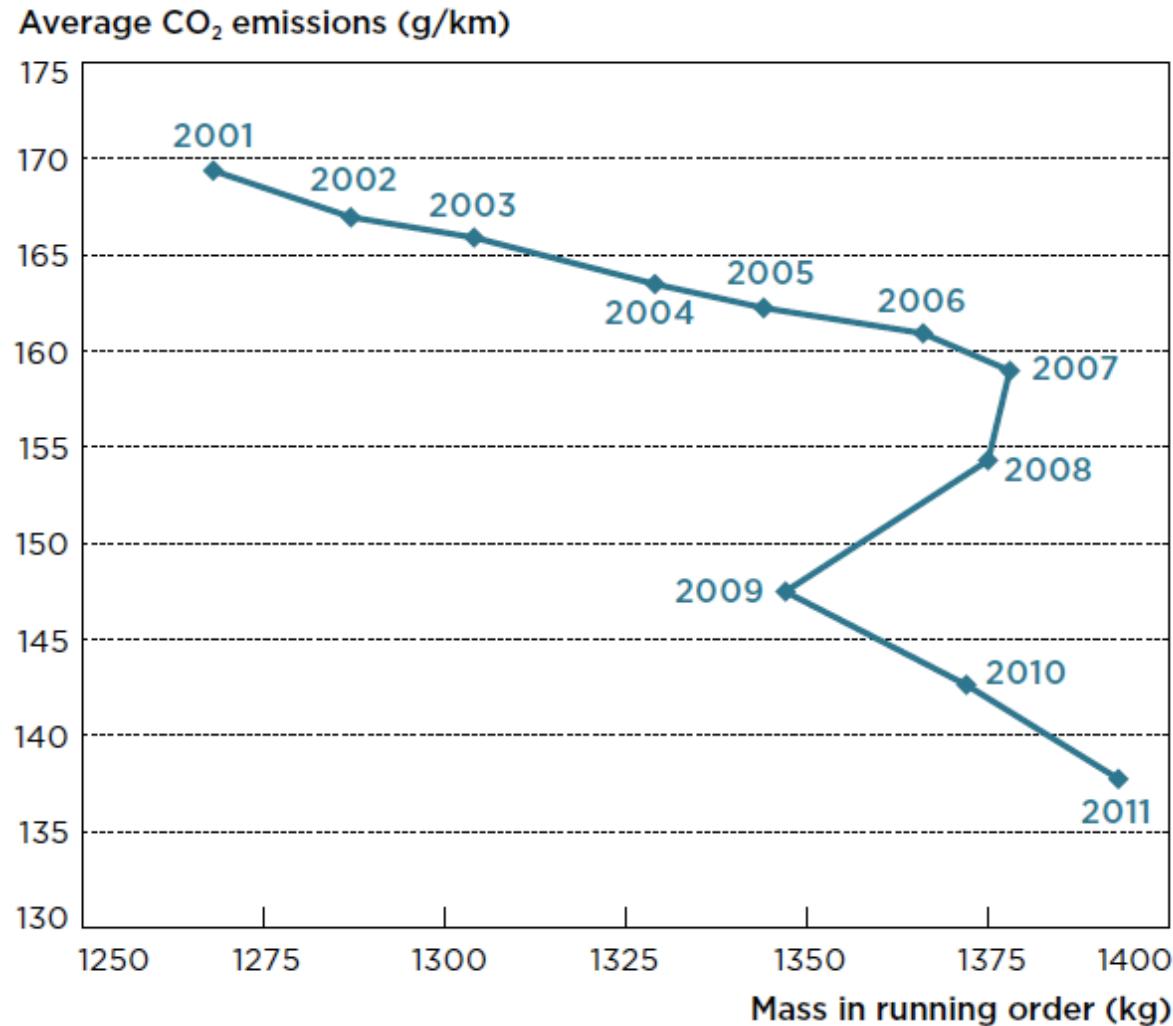
Weight-based target system



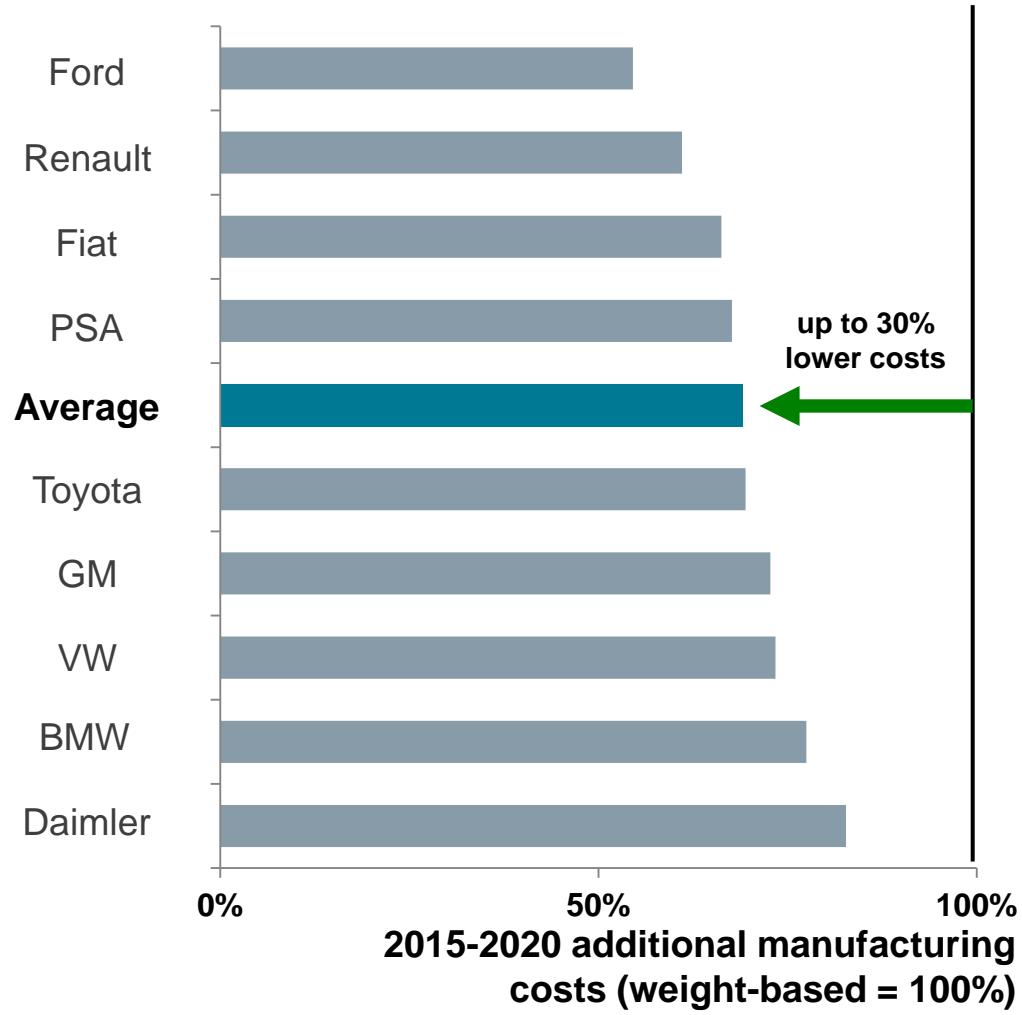
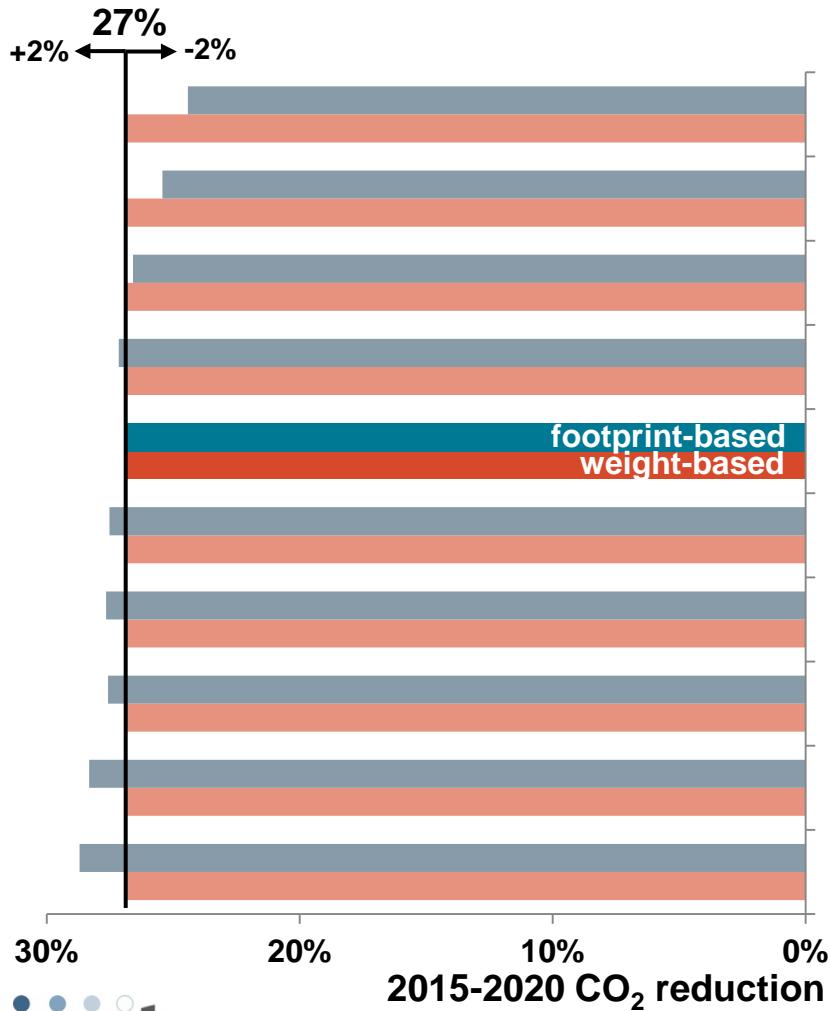
Footprint-based target system



Strong trend to increase vehicle weight: +10% in 10 years.



Lower compliance costs in a footprint-based system: savings for manufacturers and society.



Lower compliance costs in a footprint-based system: savings for manufacturers and society.

- **Data on footprint today readily available.**
- **Manufacturers need lead time to align product plans with target system.**
- **In the US, footprint-based system was introduced for 2008 regulation.**

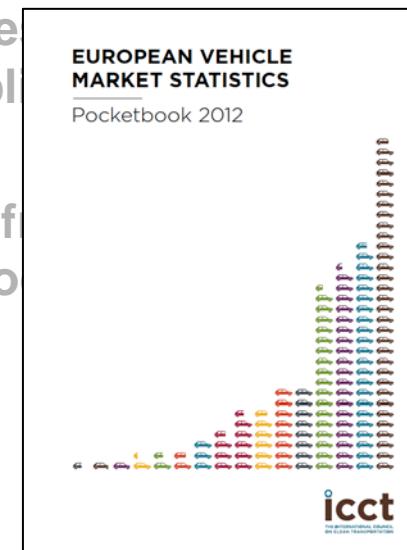
Lower compliance costs in a footprint-based system: savings for manufacturers and society.

- **2015 target almost met already today; on a good way to 95 g/km in 2020**
- **Technologies to meet 95 g/km in 2020 readily available; additional costs lower than 1,000 €/vehicle; amortisation period ≈ 2 years**
- **Weight-based target system discourages weight reduction
→ continuous weight increase → compliance costs higher than necessary**
- **Society and manufacturers will benefit from switch to a footprint-based system; but need lead-time to adapt product plans**

Lower compliance costs in a footprint-based system: savings for manufacturers and society.

- 2015 target almost met already today; on a good way to 95 g/km in 2020
- Technologies to meet 95 g/km in 2020 readily available; additional costs lower than 1,000 €/vehicle; amortisation period \approx 2 years

- Weight-based target system
→ continuous weight



Lower compliance costs
than necessary

footprint-based

Peter Mock
+49 30 847.129.102
peter@theicct.org