

## F Additional comments

For several questions, we would have liked to give more balanced answers. These balanced answers are given below.

### **B3: Road vehicle greenhouse gas emissions standards should be set based on the average greenhouse gas emissions of new vehicles entering the vehicle fleet.**

We answered "Partly disagree", because we would "Totally disagree" if utility parameter would remain mass, but we would "Entirely agree" if utility parameter would reflect actual utility and would be technology neutral. In particular, we see footprint (track width times wheel base) as the right parameter for passenger cars and payload as the right parameter for vans.

*As was also pointed out in the consultant report and further stressed at the stakeholder meeting on Dec 6<sup>th</sup>, lightweighting will be even more important beyond 2020. Therefore we would encourage the EC to already now propose to move away from using mass at the utility parameter. That is the only way the industry actually receives all the benefit for the lightweighting efforts now and beyond 2020.*

### **B.4 Standards for road vehicles should apply equally to different technologies used for powering road vehicles.**

We answered "Partly agree", because, in principle, all road vehicles should be compared based on their emissions, however, the fact that electric vehicles are considered as zero emission vehicles in Regulations EC No 443/2009 and 510/2011 distorts the reality as all emissions occur away from the vehicle.

### **B.5 EU regulation of road-vehicle emissions stimulates innovation in the automotive sector and helps keep Europe's automotive industry competitive.**

We answered "Partly agree", because some innovations are stimulated more than others in Regulations EC No 443/2009 and 510/2011.

Indeed, there are several technological means to reduce emissions from cars and vans. One of the many examples is to use low friction lubricants, another is to reduce the car's weight. At equal results of emission reduction, the two options are not treated equally by a mass-based legislation: whereas the reduction achieved through improved lubrication does not impact the mass and thus keeps the emission target constant, the same reduction achieved through lightweighting will also result in a stricter emission target, harder and more costly to comply with. Therefore the

mass-based approach discriminates against all lightweighting technologies, even though the most natural way to reduce the emissions of a car is to make it lighter..

**D.2 Additional regulation (as opposed to non-regulatory measures) is needed for this purpose.**

We answered "Entirely agree", because we would support a labelling scheme for trucks, trailers and buses indicating GHG emissions per unit of payload:

- grams of CO<sub>2</sub> per km per seat (buses)
- grams of CO<sub>2</sub> per km per m<sup>3</sup> of goods
- grams of CO<sub>2</sub> per km per ton of goods
- grams of CO<sub>2</sub> per km per m<sup>2</sup> of loading floor space

**E.3 Should the approach to regulating road-vehicle emissions consider emissions from the whole energy lifecycle?**

We answered "Partly agree" because we would "Fully agree" in case "energy" would be defined as the energy consumed by the vehicle during its operation phase.

If the definition of "energy" would also encompass the energy related to the production and end-of-life treatment of vehicles, we could only agree if the complete life-cycle including environmental benefits of end-of-life recycling would be properly credited by the future methodology.