

Position paper concerning the inclusion of a life-cycle analysis in the post- 2020 CO₂ standards discussion and CVD

July 6th, 2018

While the total greenhouse gas emissions in the European Union (EU) decreased by 0.4 % in 2016, greenhouse gas emissions from road transport increased **for the third year in a row**, making difficult to reach the goal of almost complete decarbonisation of the EU transport sector by 2050 in line with the Paris Agreement.

According to the European Environmental Agency, Transport accounts for around a third of the final energy consumption in the EEA member countries, and for more than a fifth of greenhouse gas emissions (excluding international aviation and shipping). To address the rising CO₂ emissions from road transport in the EU, the European Commission proposed 2025 and 2030 CO₂ standards for new cars and vans in November 2017, proposals currently being discussed by the European Parliament and the Member States, before the final law is agreed early next year. In parallel, the Commission addressed publicly procured vehicles through new clean procurement guidelines, proposed in the revision of the Clean Vehicles Directive (CVD).

Today calculation measure CO₂ “tail-pipe” emissions, from the engine for which robust methodologies and test methods are available. Today, there is no harmonized and widely recognized methodology to account for lifecycle CO₂ emissions (i.e. well-to-tank, tank-to-wheel and end-of-life) that could be used for regulatory purposes as early as 2025.

As highlighted by reputable sources¹, it is a technically complex issue, which entails a high administrative burden of covering embedded emissions. Such complex and detailed emission accounting system would need to rely on life-cycle assessment reporting by manufacturers that would have to cover all relevant upstream emissions from a huge number of suppliers of materials and car parts within the EU and from third countries. In addition, trade policy issues might be raised for all the components manufactured outside the EU. Moreover, an LCA approach could lead to different emissions values associated to the same vehicle type, depending on the manufacturer’s suppliers portfolio (e.g. one component could be purchase by more than one supplier) or on the location of the assembling facilities. Finally, accounting the emissions for all the phases of vehicles manufacturing could **create policy overlap issues as it could lead to double counting emissions for instance from industrial sectors already covered by the EU Emission Trading Scheme.**

¹ CE Delft and TNO (2017) Assessment of the Modalities for LDV CO₂ Regulations beyond 2020, report for the European Commission (DG CLIMA)

Therefore, such a complex legislation covering the entire supply chain should be treated in a **separate proposal and not be discussed merely as an amendment in the context of post-2020 CO₂ standards and the CVD.**

It would therefore be appropriate to address lifecycle issues in separate legislation.

For this specific reason, the Platform for electromobility calls for a rejection of Parliamentary amendments (e.g. amendments 417, 424 and 427 of the Committee on the Environment, Public Health and Food Safety) that would link embedded and upstream emissions of vehicles into the post-2020 CO₂ standards regulation. Likewise, the Platform calls to reject similar amendment to the Clean Vehicles Directive recast (e.g. amendments 151, 222 tabled in the Transport Committee, amendments 49, 78, 79, 155 tabled in the Committee on the Environment, Public Health and Food Safety).

Concerning the amendments on including upstream and embedded CO₂ emissions, these are already adequately covered in regulatory tools at EU level today:

- a. **Fuels regulation:** Upstream well-to-tank CO₂ emissions of petrol and diesel vehicles today are dealt by the EU Renewable Energy Directive (RDE) and the Fuel Quality Directive (FQD), with CO₂ regulations only covering the remaining **tank-to-wheel emissions.** It is indeed not possible to make vehicle manufacturers responsible for the fuels the fuels industry delivers and their customers use, let alone oblige vehicle manufacturers to pay penalties if the fuel lifecycle emissions turn out higher than mandated.
- b. **Embedded emissions of vehicles:** while it is in principle not impossible to make vehicle manufacturers responsible for the embedded emissions of their vehicles, it would in practice be next to impossible since it would entail establishing the carbon footprint of each of the thousands of components of a car found on the EU market, the production of which is usually sub-contracted or externalized. The use of emission default factors could be a way out but it could also lead to an oversimplified and inaccurate picture, given the diversity and complexity of the global supply chain, and more importantly, it would not provide any incentives to *improve* the carbon footprint of the car.
- c. **Specifically focusing on battery electric vehicles,** the lithium-ion battery is the most important embedded component for electric vehicles. The new EU Battery Strategic Action plan, published on 17 May 2018, aims to address this issue by including actions on the life-cycle analysis of electric vehicles in the coming years. Most notably, a battery labeling system will be developed, coupled with the EU Eco-design regulation to differentiate batteries based on their emissions, carbon and environmental footprint. Therefore, adding EV battery embedded emissions (from production, with the use phase covered by the EU ETS Directive) into the post-2020 CO₂ regulations would create distortions penalizing EVs since CO₂ emissions of other powertrains (gasoil, diesel, gas....) are partly covered in other regulations, or not covered at all.

In summary, while reducing the CO₂ footprint of the vehicles during their entire life cycle is an important goal that should be pursued, the CO₂ regulation for cars and vans is not the right place to do so. This regulation was never designed to regulate the whole life-cycle of the vehicle supply chain and is not the adequate instrument for this. Instead, other tailored legislative mechanisms, such as the Renewable Energy Directive, Eco-design regulation, the EU Emissions Trading System, Circular

Economy and ethical sourcing of raw materials, are more adequate to address emissions of fuels and other upstream processes.

Currently, there is no harmonised way to assess life-cycle emissions from light duty vehicles. The Commission could propose such methodology by the mid-2020s (to apply after 2030) to present a broad picture of carbon emissions from the light duty vehicles sector. Agreeing some quick fix in the next few months as an amendment to the light vehicles CO₂ regulation would lack robustness and credibility to deal with a complex issue of global supply chains and embedded carbon emissions.

To conclude, such methodology should be in line with the relevant ISO standards and account for the global warming potential (GWP) of vehicle's well-to-wheel, tank-to-wheel and end-of-life emissions. But above all, it should be discussed through a transparent and democratic EU institutional process, and be based on the data reported by all relevant actors (not only manufacturers).