

(Proposal for discussion to the members of GRB)

Feasibility of the development of a "noise profiling test" for electric and hybrid-electric vehicles.

Electric Vehicles (EVs) and Hybrid Electric Vehicles (HEVs) are expected to represent a significant percentage of urban traffic in Europe and worldwide in the coming years. In this manner, they are expected to have a positive impact on the overall traffic noise emission levels in urban and suburban areas. However, their low sound emission levels pose a safety threat to the blind and the visually impaired as well as to other citizens and pedestrians with impairments.

The European Commission adopted on 9 December 2011 a proposal to reduce noise produced by cars, vans, buses, coaches, light and heavy trucks. With respect to EVs and HEVs, the Commission's proposal and the revisions proposed through the current legislative process, put forward precise requirements on warning devices for audible vehicle alerting system (AVAS) for EVs and HEVs, i.e. continuous sound similar to combustion engine. The fitting of the AVAS system is still considered at this stage as optional in view of the concerns expressed by the stakeholders. Furthermore, Commission is ready to further study the issue of a scheme for the "noise labeling" of vehicles as this could be a good tool to drive consumer demand toward quiet vehicles.

With regard to the fact that the advantages offered by the so-called quiet vehicles should not be completely nullified, the European Commission proposes the development of a "sound emission profiling test" for quiet road transport vehicles and invites the members of GRB to discuss its technical and regulatory feasibility. The "noise profiling test" can be developed either through the revision and the extension of scope of the noise tests available under the framework of UNECE Regulation No 51, or by means by a supplementary test dedicated to "quiet vehicles". Alternatively, the New European Driving Cycle (NEDC) may also be used as the basis for the test method setup and procedure.

The primary objective of this exercise will be the profiling of the vehicle's noise emissions up to the speed of 30 km/h. The test will be dynamic and is expected to provide noise emission data and the overall noise emission profile of the vehicle with respect to its travelling speed. This is expected to enable manufacturers to assess the vehicle's sound emission characteristics with respect to the assessment and optional installation and customization of an AVAS system.

The feasibility of this proposal needs to be assessed at the GRB and competent GRB members to look further into the technical requirements of the exercise.
