Opinion of the European Economic and Social Committee on the 'Proposal for a Regulation of the European Parliament and of the Council on the sound level of motor vehicles'

COM(2011) 856 final — 2011/0409 (COD)

(2012/C 191/14)

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On 19 January 2012 and 15 December 2011 respectively, the Council and the European Parliament decided to consult the European Economic and Social Committee, under Article 114 of the Treaty on the Functioning of the European Union, on the

Proposal for a Regulation of the European Parliament and of the Council on the sound level of motor vehicles

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The Section for the Single Market, Production and Consumption, which was responsible for preparing the Committee's work on the subject, adopted its opinion on 17 April 2012.

At its 480th plenary session, held on 25 and 26 April 2012 (meeting of 25 April), the European Economic and Social Committee adopted the following opinion by 106 votes, with 1 abstention.

1. **Conclusions and recommendations**

1.1 The EESC supports the Commission's initiative to update the noise limit values for motor vehicles by lowering them. It does so despite the fact that the proposal comes at a time when the European automotive industry is trying to get to grips with a market crisis, which began in 2008 and shows no signs of letting up, emphasising the problem of production overcapacity in Europe.

1.2 The EESC also shares the proposal's ambitious objectives, which according to the Commission will reduce vehicle noise pollution by about 25 %. There is no question that the very substantial increase in traffic, especially in the last twenty years, calls for action to protect public health and wellbeing.

1.3 Nevertheless, the EESC notes that even in this case, the problem is not addressed through an integrated approach involving measures in other related sectors, which would have enabled even more efficient noise reductions, which would therefore have been easier for the public to appreciate and would have had an undoubtedly better cost-benefit ratio.

1.4 The EESC is even more concerned to see that the new limits have been applied on the basis of a classification of vehicles dating back to 1985. It therefore does not take into account market developments resulting in a higher number and wider range of models for different purposes. New categories have to be added, with limits that are appropriate to their specificities.

1.5 The EESC also believes that the proposal does not make enough allowance for how long it will take to take to adapt vehicles to the new noise levels. Manufacturers will have to take immediate action to review their vehicles' architecture in order to make difficult compromises between noise reduction and other, pre-existing requirements relating to safety, consumption, emissions and other areas.

1.6 For all these reasons, the EESC advocates a review of the proposed timeframe (two years following the adoption of this proposal), which increases costs such as type-approval, focusing directly – with a better cost-benefit ratio – on the final result with an appropriate lead time [1], which would therefore be seven (not five) years for new type-approvals and nine (not seven) years for new registrations.

2. **Introduction and legislative context**

2.1 Noise, which is commonly described as 'unwanted sound' or as an 'unpleasant or annoying auditory event', is a main contributor to deteriorating quality of life in cities, with possibly harmful or serious public health impacts [2].

2.2 Ambient noise or noise pollution is measured – as is known – in A-weighted decibels (dB(A)), and human hearing ranges from 0 dB(A) to 140 dB(A) with a pain threshold of 120 dB(A). According to the World Health Organization, 55 dB(A) is the maximum acceptable sound level outside enclosed spaces (houses, offices). However, according to the European Environment Agency, in urban areas over half the population is exposed to higher levels of ambient noise. For the

[1] *Lead time*: The time needed for the industry to implement any new requirement involving structural changes to a vehicle.

[2] OJ C 317, 23.12.2009, p. 22.

purposes of practical evaluation, you should bear in mind that noise levels in a residential street are estimated at 50 dB(A), a jet plane emits 120 dB(A), a high-speed train 100 dB(A), a vehicle 74 dB(A) at most, but in a street with heavy traffic, sound reaches 80 dB(A).

2.3 In the specific case of traffic noise, there are numerous possible steps to be taken, but there is no doubt that the first step is to reduce noise at its source, i.e. by limiting the sound levels of individual vehicles.

2.4 The sound levels of four-wheel vehicles was covered by Directive 70/157/EEC, which, as early as 1970, set out procedures for testing and limiting sound levels for the type-approval of vehicles. Over the years, the directive underwent a series of amendments, revising noise limits downwards in order to reduce ambient noise, until the most recent in 1996, which set the limit at 74 dB(A) for cars and 80 dB(A) for heavier freight vehicles.

2.5 This long process has delivered significant results, with noise emissions that are 85 % below the limits set in the 1970 directive for cars (– 8 dB(A)) and 90 % for heavy vehicles (– 11 dB(A)).

However, the reduction in noise pollution is not proportionate to the new limits for a number of reasons, the foremost being that road traffic has tripled since the 1970s. This increase in traffic also called into question the validity of the noise emission test methods used so far, especially for cars.

2.6 For this reason, the UNECE ([3]) Working Party on Noise developed a new test method, which it published in 2007 and has monitored over the last three years, in parallel with the current method. This has made it possible to put together a database of results using the current test method A and the new test method B and to quantify the differences between the results of the two methods.

2.7 The European Commission therefore tasked the Netherlands Organisation for Applied Scientific Research (TNO) to undertake a comparison of the two test methods, which was concluded in March 2011, when TNO presented the Commission with its report, entitled VENOLIVA (Vehicle Noise Limit Values). The proposal for a regulation under consideration in this opinion is largely based on this report.

2.8 With regard to cars, TNO tested 653 vehicles and noted an average difference of – 2.1 dB(A) between test B and test A. In practice, it turned out that 90 % of the vehicles tested were already below the set 74 dB(A) limit, whereas heavy commercial vehicles were barely capable of staying below their current limits when test B was used.

([3]) United Nations Economic Commission for Europe (Geneva, www.unece.org).

3. The European Commission's proposal

3.1 In view of the foregoing, the Commission plans to abolish the 1970 directive and its amendments, and to put forward a regulation that adds four new requirements to the existing law:

— new test protocols;

— new limit values;

— additional sound emission provisions; and

— minimum noise for electric and electric-hybrid vehicles.

3.1.1 **New test protocols**. As already pointed out in the introduction, the results obtained using new method B are up to 2 dB(A) lower than those using old method A for about 90 % of the tests carried out. This has convinced the Commission not to establish initial limit values at the current 74 dB(A) but at 72 dB(A).

3.1.2 **New limit values in two stages**. During the first stage (two years after the publication of the regulation) the limits for the type-approval of light passenger vehicles will be reduced by 2 dB(A) and heavy commercial vehicles by 1 dB(A). In the second stage (five years after publication) there will be a further reduction of 2 dB(A) for light and heavy vehicles alike. Seven years after publication, all vehicles will have to comply with these new limits in order to be registered.

3.1.3 **Additional sound emission provisions (ASEP)**. New test method B is considered to be realistic in normal traffic conditions but the Commission believes that it may be less reliable in very heavy traffic. As a result, the Commission intends to introduce additional test provisions to the ones used during the already mentioned three-year monitoring period (test for stable acceleration at 2,0 m/s^2). This will be complemented by the ASEP test (maximum acceleration of 3,0 m/s^2) in order to approximate sound emissions registered when type-approval was granted to real on-road conditions in heavy traffic.

3.1.4 **Minimum noise for electric and electric-hybrid vehicles**. The fact that low-speed vehicles make little noise can present dangers for people with low vision and others, who might not be able to hear them approaching. As a result, the Commission has merely advocated, without making it a requirement for manufacturers, equipping these cars with an Acoustic Vehicle Alerting System (AVAS), for which, however, it sets requirements.

4. **General comments**

4.1 The EESC welcomes and supports the Commission's initiative to update the noise limit values for motor vehicles through a regulation in light of the noted increase in traffic in Europe, especially in populated areas.

4.2 The EESC nevertheless regrets that the problem was not studied with a view to developing an integrated approach, which should be the guiding principle for all EU legislation in this as in other sectors, and which in this case would have delivered faster and more significant results, which would have been easier for the public to appreciate and would have had a better cost-benefit ratio.

4.3 The reductions currently on the table for new vehicles will only bring medium to long term benefits, as vehicles currently on the road are replaced. Far greater reductions would be achieved by impacting on road surfaces and local infrastructure, and through smart traffic management and more regular and thorough checks for vehicles on the road. Appropriate road maintenance could result in a reduction of over 5 dB(A), whereas the use of special types of asphalt would reduce traffic noise by up to 10 dB(A). A similar reduction could be achieved through road decongestion, e.g. by adding bypasses, bus lanes, Intelligent Transport Systems (ITS). And we should not neglect the important aspect of educating drivers, who are often primarily responsible for their vehicles being too noisy.

4.4 Finally we must not forget that however much we reduce vehicle noise (engine, suction, exhaust pipe etc.), we will never succeed in going below the rolling noise of tyres on roads. This applies equally to electric and electric-hybrid vehicles, which are certainly silent at their lowest engine speed, even to the point where the Commission is planning to have them equipped with an AVAS. In fact, a test carried out on six different electric and electric-hybrid models currently on the market ([4]) has shown that at higher speeds (50 km/h) the average noise made by these cars is 68.3 dB(A), i.e. higher than the 68 dB(A) set by the new regulation for cars with internal combustion engines.

4.5 The EESC nevertheless raises a number of questions and concerns regarding the proposed regulation, which could be resolved during the debate at the European Parliament and in Council.

4.6 The first question concerns the '**categorisation**' of vehicles for the purposes of noise abatement. The categories listed are the 'historical' ones, which date back to 1985. Market developments, and hence, the higher number and wider range of models for different purposes, have not been taken into account. Without going into detail, the EESC believes that if the categories were revised to include new sub-categories, obviously with limits suited to their specificities, this would give a clearer picture of vehicles currently or soon to be seen on the road. To give one example, sub-category M3 for urban buses and tourist coaches does not distinguish between the two types.

The situation is even more critical for high-performance cars, otherwise known as sports cars. This is a niche sector in terms of volume of production. However, it is also an area of excellence for Europe's car industry in the world, with innovative knock-on effects for mass produced cars. Unless the M1 sub-category (cars) is redefined it will be very difficult to continue to produce and therefore sell these vehicles, since they will only have five years to reduce their noise levels by 6/7 dB(A).

4.7 The EESC's second, and greater, concern is that the timeframe which the Commission has proposed in an attempt to make up for the absence of updates in recent years does not give adequate consideration to the **lead time** required by manufacturers.

4.7.1 A reduction of 2 dB(A) during the first stage for all light vehicles and 1dB(A) for all heavy vehicles involves structural changes to vehicles requiring a considerable effort from the industry, which will have to lower noise levels while respecting other, pre-existing requirements relating to safety, consumption, emissions and other areas. For instance, the required changes will considerably increase a vehicle's weight (increased exhaust pipe volume, added protection and sound absorbing materials), which will result in higher consumption and therefore polluting emissions. It is important to realise that any measure in this area will affect the entire vehicle in all its aspects as sources of external sound. In fact, it is impossible to get any results by simply applying separate measures.

4.7.2 Nor will achieving the results expected during the first stage (as some have argued, at least for M1 and N1) be helped by the benefits expected from lower noise emissions from tyres under Regulation (EC) No 661/2009. In fact, these tyres are already to a large extent available on the market and will be mandatory for new vehicles as of November 2013. Nevertheless, the average benefit in terms of noise reduction has been estimated at 0.5 dB(A) only for 2016.

4.7.3 Vehicles will therefore have to be re-thought, re-developed and re-engineered. Redesigning an entire vehicle is known to take five to seven years, depending on the type, for light vehicles, and up to ten years for heavy vehicles, with the added need for new type-approvals.

([4]) Source: The European Automobile Manufacturers Association (ACEA).

4.8 In view of the foregoing, the EESC wonders whether it would not be better to review the timeframes and methods for achieving the proposed noise reductions. This could be done by eliminating the first stage, which entails additional costs in terms of type-approval, focusing directly on the end result (with better cost-benefit ratios), reviewing the sub-categories, at least for the more difficult cases and setting the more appropriate lead times of seven years for new type-approvals and nine years for new registrations.

4.9 This would however involve a gradual investment of substantial proportions at a time when almost all European manufacturers are dealing with a market crisis that began in 2008 and seems to be getting worse. These investments will inevitably be shouldered by consumers, with the risk that vehicles on the road will be replaced even more slowly, especially heavy goods vehicles, which would undermine the new regulation's objective.

Brussels, 25 April 2012.

The President
of the European Economic and Social Committee
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