

2012-03-20

To: Mr Ouzky, rapporteur environment EP

Cc: Mr Tatarella, Ms Merkies, Mr Krahmer, Ms Hassi.

## **Expert support for stricter vehicle noise emissions standards**

Dear Mr Ouzky,

As independent experts on noise, from the fields of health and vehicle technologies respectively, we write to support an ambitious regulation to tighten the European standards for vehicle noise emissions. It should be stressed that a part of the vehicle fleet already fulfills the standard proposed by the European Commission.

It is now the 20<sup>th</sup> anniversary of the last – small – improvement in standards, which unfortunately – set against the increase in traffic volume – has had little impact in reducing overall traffic noise levels. After this long period of very little progress in further traffic noise reductions, during which the health burden has increased, we support the initiative to tighten the European standards for vehicle noise emissions. An effective regulation will reduce the severe health impacts and the associated costs of road noise, but only if appropriate stringent limit values are provided for and set within a short time frame.

We are concerned that the alternative proposal by Germany will weaken and delay the badly needed reduction of traffic noise so much as to make it ineffective. A time delay of another 10 to 14 years leads to a shocking 30 years stand still, which comes on top of a period of little progress and rapidly increasing traffic

Road traffic noise contributes substantially to the burden of disease in the EU. The World Health Organisation's Night Noise Guidelines (2009) confirm that nighttime noise levels above 55 decibels (dB) are "increasingly dangerous for public health" and cause adverse health effects.<sup>i</sup> The noise maps for agglomerations and transport infrastructures made available by the Environmental Noise Directive and published on line in EEA's NOISE database, prove that in this small sample (17% of the population) 32 million people in the EU are exposed to levels over 55 dB at night and roughly an equivalent number to levels between 50 and 54 dB. Cautious extrapolations to the whole of the EU at least doubles this number, arriving at a total of over 100 million exposed to high levels of night noise. This illustrates the worrying extent of public exposure to noise. EEA also made available the health effects through the Good Practice Guide on health assessment from noise.<sup>ii</sup> A comprehensive Danish study published in 2011 has indicated the severity of the health burden of traffic noise.<sup>iii</sup> Furthermore, a report on the European Perspective on Environmental Burden of Disease covers the health effects of noise in detail.<sup>iv</sup>

With this – mostly new or updated – knowledge of EU-wide exposure to traffic noise, the health impacts and associated costs (several countries are investing heavily in abatement measures on the major infrastructure), enable better estimates of the benefits of noise reduction measures at the source than was possible to make 10 years ago.

In addition to benefits associated with health there are additional benefits associated with productivity and impacts on the ecosystem which although presently difficult to quantify are nevertheless recognized as important factors when assessing cost benefits from noise reduction<sup>vvi</sup>.

In order to effectively protect health and wellbeing, we believe that an additional step of stringent standards should already be laid down now, to take effect in 2020. The process to update standards takes too long. Legislating now by setting a timetable for more stringent standards helps manufactures to plan for the future by removing uncertainties.

## **Estimation of benefits to health and wellbeing**

The protection of health and wellbeing is the primary motivation for improving vehicle noise standards. From the first round of mapping that was limited to sampling only 17% of the population by the Environmental Noise Directive, an estimated 38 million people experience highly disturbed sleep with an associated financial loss of up to 100 billion euros per year. To this the loss caused by annoyance and cardiac diseases would have to be added. According to Eurostat 21%<sup>vii</sup> of the EU-27 population suffers from noise – 105 million people. The now proposed reduction by the Commission should result in 20% less sleep disturbance and 25% less for other health effect. This is a substantial benefit, which definitely outweighs any reasonable attributable cost.

## **Estimation of costs to manufacturers**

Production costs and investment costs should be examined separately. The production costs found in the report for ACEA are similar to those quoted in a report for the European Commission by TNO<sup>viii</sup>, and in accordance with previous reports, at around €20 per decibel per vehicle reduction for M1 vehicles.<sup>ix</sup> The investment (mainly research) costs were rated much higher by ACEA, but several experts found this to be highly unrealistic. There is no technological barrier to fulfill the noise limits proposed by the EU Commission, witnessed by the fact that substantially quieter vehicles are already available throughout the price and product range (including sports and luxury models, family cars and budget models). No correlation is found between noise emissions and power, or between noise emissions and price. Already half of M1 vehicles are 3dB or more quieter than the current equivalent limit values. From this it seems that no technological breakthroughs are necessary, manufacturing new quiet models should be part of the normal production cycle.

## **Importance of improved noise standards for heavy vehicles**

For the health and wellbeing of the European citizen in the coming decades, significant noise reduction of heavy vehicles is absolutely essential. Development in traffic and vehicle compositions over the latest decade, as well as the anticipated time trend has made noise emission from heavy duty vehicles (HDV) increasingly important in relation to that of light vehicles. This is because HDV traffic has increased much faster than light vehicle traffic, especially during the night on the European transit corridors. Furthermore, although some HDV may shift to hybrid or electric, the trend will most likely be faster among the light vehicles. Importantly, the new tyre noise limits (Regulation 661/2009) are much less stringent for heavy vehicle tyres than for light vehicle tyres and will be introduced much later, coupled with the fact that approximately half of the heavy vehicle tyres (retreaded tyres) are not subject to any noise limits. Therefore, special attention must be paid to reducing HDV noise emissions. The ambition level for reducing HDV noise should be higher than for light vehicles, to achieve significant overall traffic noise reduction.

We believe that strict standards will achieve significant results. In 1989, Austria introduced a night driving ban for heavy duty commercial transit traffic, unless the vehicles complied with a noise level 4 dB lower than the EU limit of 84 dB coming into force about the same time. At that time there were strong objections that the noise reduction would be almost impossible, or at least extremely expensive, to achieve.

However, two truck manufacturers offered compliant vehicles almost immediately. By the early 1990s, most of the heavy trucks travelling in central Europe met the 80 dB limit, well ahead of the 1996 deadline for the EU-wide limit value of 80 dB.<sup>x</sup>

In addition to the maximum limits, it is important to promote the development of quiet city buses and quiet vehicles for urban services during the night. We therefore suggest that in addition to the maximum limits, requirements and certification are introduced for "quiet heavy vehicles" to which customers (e. g. city administrations and public bus companies) could refer in procurement requirements. Hybrid and electric vehicles that meet such purposes are already becoming available. This could initiate a "buy quiet" development.

## **Importance of improved noise standards for vans**

Vans constitute a fast-growing share of the vehicle fleet in Europe, and of noise emissions, especially in urban areas. Because of – unnecessary – weaker limits, studies show that an estimated 50% of the noise levels in some Dutch cities comes from vans. In the Commission proposal this is much improved.

## **Issues for future consideration**

Motorcycle noise is not included in the forthcoming proposal. However, we want to emphasize that noise from motorcycles is a growing environmental concern.<sup>xi</sup> With the planned noise-reducing measures for cars, buses and trucks in Europe, motorcycle noise will be even more prominent. It is absolutely necessary to also tackle the noise emissions of these vehicles, and in particular to improve enforcement as a significant proportion of two wheelers are found to be louder than permitted due to tampering.

## **Conclusions**


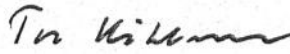

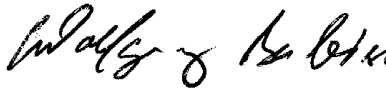

We the undersigned are convinced, on the basis of scientific evidence, that the monetary benefits of quieter traffic by far outweigh the costs of quieter vehicles to society. This is already proven by market availability of vehicles that would satisfy even the most stringent future demands. If all vehicles would meet the level of today's best current technologies available, the environmental noise problem caused by road traffic would be greatly reduced. The technology for quieter vehicles is sufficiently well known to set substantially stricter noise limits.







Vehicle noise emissions limits have remained unchanged since 1992, with the result that the noise burden on Europeans has continued to increase. Vehicle manufacturers have regrettably not been encouraged by regulation to reduce noise, and we strongly support the Commission's initiative to finally take action with several steps of increasingly stringent limit values to be introduced over the coming years. The delay caused by the German proposal is therefore rejected.



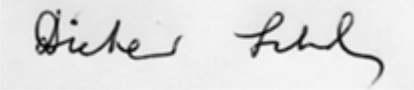

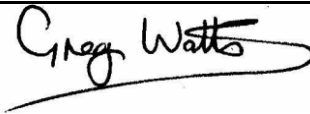
We the undersigned urge you as rapporteur, and your fellow Members of the European Parliament, to take the above into consideration when considering the legislation on vehicle noise emissions.

The coordinators of this letter are open to answer any questions in this regard.

Sincerely,

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	Coordinator, European Network on Noise and Health (ENNAH);	
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<b>Prof. Greg Watts</b>	Professor of Transportation Noise	
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## References

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- <sup>vi</sup> DEFRA (2010). *Noise & Health – Valuing the Human Health Impacts of Environmental Noise Exposure*. A Response by The Interdepartmental Group on Costs and Benefits Noise Subject Group (IGCB(N)).  
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- <sup>x</sup> Sandberg U. (2001) *Noise emissions of road vehicles effect of regulations*, Final Report 01-1. I-INCE working party on noise emissions of road vehicles (WP–NERV). International Institute of Noise Control Engineering, July 2001.  
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- <sup>xi</sup> See for example: [www.cityhush.eu](http://www.cityhush.eu) and Lercher, P., Sölder, M. (2009): *Exposure by motorbike noise in alpine residential areas – a case study in public health risk assessment*, presented at EuroNoise 2009, Oct 26-28 2009, Edinburgh, UK.