Sound level of motor vehicles

Traffic noise has impacts on citizens’ health and well-being. The European Commission therefore proposed a Regulation which aims to reduce the noise emissions of motor vehicles by about 25%. The EP’s Environment Committee voted to amend the proposed noise limits, and calls for mandatory noise labelling of vehicles as well as a systematic assessment of road surfaces.

Health impacts of noise

Environmental noise is a significant public health problem. Noise can cause anxiety, tinnitus, disturbance of sleep, psychological problems, cardiovascular diseases and cognitive impairment of children. More than 1 million healthy life years are lost every year in western European cities due to noise, according to the World Health Organisation.

Almost 70 million people in the EU are exposed to excessive long-term average road noise levels (>55 dB), according to the European Environment Agency. During sleeping hours 44% of the population in large cities is exposed to noise levels that can have adverse health effects (>50 dB).

Reducing traffic noise

A number of factors contribute to traffic noise: vehicle engines and power trains, road surfaces, tyres, and speed-dependent aero-dynamic noise.

Experts therefore advocate an integrated approach which combines vehicle noise limits with effective traffic management, speed limits, improved road surfaces, better tyres, and adapted driver behaviour.

A study by Dutch research institute TNO finds that there is no conflict between noise reduction and energy efficiency and CO₂ reductions.

Existing legislation

The Environmental Noise Directive (2002/49/EC) obliges Member States to develop strategic noise maps and action plans for addressing noise issues. However, it does not impose noise limits.

Proposed legislation

In December 2011, the European Commission proposed a new Regulation (COM(2011) 856) to replace the Vehicle Noise Directive and to lower traffic noise levels by around 25%.

The proposal is for noise limits to be lowered within two years by 1 dB for trucks and 2 dB for cars, vans and buses; and by an additional 2 dB for all vehicles, three years later.

The proposal also introduces a new test method, which is closer to realistic driving conditions and in line with international standards. In order to prevent accidents with silent electric and hybrid vehicles, these can optionally be fitted with an acoustic warning system to make them audible at low speeds to pedestrians and other vulnerable road users.

The Commission’s impact assessment claims that the benefits to society of the new regulation will be more than 20 times higher than its costs for industry. According to the Commission, industry will benefit from alignment with international testing standards.

Role of European Parliament

In April 2012, a workshop "Sound levels of motor vehicles" brought together policymakers, experts and stakeholders.

In December 2012, the Environment Committee voted a draft report (rapporteur Miroslav Ouzký, ECR, Czech Republic), which calls for better information to consumers about vehicles' noise levels as well as a systematic assessment of road surfaces, which also contribute to traffic noise. The Committee's report modifies the classification of vehicles and the sound limits, which would come into force within six years.