

Possibility of international standardization of road traffic noise prediction model

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To investigate the reduction measures of the road traffic noise effectively, it is useful to establish the calculation model which can be applied to the roads in different countries. In this study, first, the sound power levels, the vehicle speeds, the traffic volume, the types of the road surfaces and the road traffic noise (LAeq) were measured in the Netherlands and they were compared to the data in Japan.

As for the sound power level of each type of vehicle, it was found that the difference between both countries was not significant. Second, the road traffic noise calculation model developed at Japan Automobile Research Institute (JARI) was applied to the urban roads in the Netherlands and the noise levels in the roadsides were calculated.

As for the results, the calculated values of LAeq were corresponding to the measured values within 2 dB. Therefore, it has been found that the calculation model of JARI is applicable also on the urban roads in Europe.