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NOISE CONTROL FOR A BETTER ENVIRONMENT

Should Hybrid And Electric Vehicles Have Acoustic Alerting Systems?

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ABSTRACT

Noise is an oft-overlooked environmental issue within densely populated regions. Vehicles, railways, and airports operating within or near cities are all contributing to the growing noise pollution problem– causing negative health and economic impacts. Due to this, it is of primary importance to make our cities quieter. The German Environment Agency is working on noise and its effects on humans, especially with respect to policy in order to make traffic as quiet as possible by addressing all the relevant elements from roads and tracks to vehicles, operational procedures, and measures along the sound propagation path. Europe, as well as most of the world, faces a future full of environmentally friendly hybrid or pure electric road vehicles. Concerns were raised that these low-emission vehicles could pose a risk to blind and low vision pedestrians. To address this concern, the European Union has legislated that future hybrid and pure electric cars must be equipped with acoustic vehicle alerting systems (AVAS).The presentation provides a critical assessment of the effectiveness of AVAS and of their negative side effects. Furthermore, it explores alternative non-acoustic approaches addressing aspects such as environmental protection, road safety, feasibility, and usability.