Advances in Vehicle Alcohol Detection - The Way Forward

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Alcohol-impaired driving is a continuing problem in many countries as progress to reduce this problem has stalled. Strong laws and enforcement have done much to reduce deaths and injuries from drinking and driving and such efforts continue, but more must be done if we are to make substantial progress in the long term. The use of vehicle-based technologies to assist drivers in maintaining vehicle control are proving effective, and the potential for technology that could prevent alcohol-impaired driving has been recognized. Current aftermarket breath testing devices can measure a driver’s blood alcohol concentration and if a preset threshold is exceeded the vehicle can be prevented from starting. These devices, predominantly used by drivers convicted of DWI, have been shown to reduce recidivism. However, widespread deployment of such technology among all drivers likely would be far too intrusive for everyday use. Almost 40 percent of people in the United States are self-professed teetotalers and many drinkers do so only occasionally. Expecting them to provide a breath sample each time they start their vehicle is unreasonable and unacceptable. Advanced technologies are needed that could rapidly and accurately determine alcohol-impairment and prevent impaired drivers from getting behind the wheel. However, such devices should not impede sober drivers from starting their vehicles. In addition, such devices would need to be reliable, durable, and low maintenance. They would also have to be small and of modest cost.

A long-term cooperative research effort is underway that will be funded by the National Highway Traffic Safety Administration and the Alliance for Automobile Manufacturers, although other funding sources may be used in the future. A Blue Ribbon Panel of experts has been formed that will help establish a research agenda and oversee a step-by-step, data-driven process to ensure effective technologies are developed. Speakers representing the automobile industry, the Blue Ribbon Panel, and the government will discuss the rationale for such technology, the challenges associated with the myriad of technical, policy, and public acceptability issues that must be resolved, as well as the plans that are in place to accomplish these goals. The panel members will discuss the current climate in which this effort is being conducted where advanced technologies are being implemented and developed for use in passenger vehicles to address a myriad of driver behavioral issues such as risk taking, inattention and distraction, and drowsy driving. Such technology if used widely could effectively reduce or ultimately eliminate alcohol-impaired driving. However, maintaining the currently high level of public acceptance will depend on the careful and timely implementation of highly reliable systems - to do anything less would be a recipe for failure.

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