

Safety is crucial for the success of electric cars

In order to ensure the success of electric vehicles, a number of challenges must be met. Among them is being able to guarantee a level of safety that is comparable with that of a conventional vehicle. The VDI (German Engineers Association) has thus published a position paper “Electric mobility and safety”.



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Consumer confidence for a vehicle's driver and passengers is crucial for the sustained success of electric mobility. Dangers that arise from causes that conventional vehicles do not have—in particular through high electrical voltages and through the particularities of the energy storage—must be reduced to a bare minimum.

The government must assure that vehicles in accidents offer adequate protection in the outcome of the accident to all participants in street traffic (drivers, passengers, pedestrians, etc.) in order for electric vehicles to become accepted. The VDI recommends that the federal government act to promote the introduction of European standards for system components for electric vehicles.

The development of light-weight vehicles can ease the expansion of electric vehicles. However the protection of a vehicle's occupants under existing conditions must be brought up to an appropriate level. The requirements should take into account the particularities of the electric drive and a mostly city-oriented usage as well as the protection of occupants in a collision with heavy vehicles. The VDI recommends a vehicle category of between 400 and 800 kg (850-1700 lb) at a European level. For these vehicles an appropriate speed limit should be established that focusses on urban operation.