

PRESS RELEASE



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Ricardo shows how to create the right ‘voice’ for the performance electric car

A Ricardo presentation today at the SAE Noise & Vibration Conference and Exhibition hosted at Grand Rapids, Michigan, will outline new engineering methods that – drawing upon the inherent acoustics of the powertrain of electric sports cars – will generate a truly authentic brand image ‘voice’ for this increasingly popular new vehicle type

Excitement, image and emotion are key attributes for sports cars, and the tuned sound of the internal combustion engine has long been a means of conveying the ‘voice’ as a crucial reinforcement of the brand. But in the increasingly popular field of all-electric performance vehicles, this avenue of acoustic engineering is not an option.

Electric sports cars deliver a strong and responsive dynamic performance on the highway, but they inherently lack the acoustic feedback of the internal combustion engine. This is good for general in-cabin comfort but extremely poor in terms of reinforcing the emotion and excitement of the brand image; issues that are crucial both in driving sales and creating brand loyalty for performance sports cars.

Building on its ‘Realistic Augmented Sound by Ricardo’ (RAS-R) technology, Ricardo has developed an engineering process that enables automakers to deliver a truly genuine ‘voice’ for the electric sports car. The system uses sensors on the electric drive train to provide a live stream of authentic sound that is rich in information content, from both the electromagnetic forcing and gear meshes of the car’s driveline. The presentation will show that such technology is if anything less expensive than the traditional internal combustion engine sound tuning measures.

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“Sports car customers are strongly influenced by the ‘voice’ of the vehicle and its impact on the emotion and excitement that it creates for the brand,” commented Ricardo NVH technical specialist Mathew Maunder. “In many respects, the powertrain is part means of propulsion and part musical instrument, and the challenge for us is to make a responsive and rewarding acoustic performance – and one that resonates with drivers’ expectations of the sports car brand. By providing a voice that is truly authentic to the language of the car, we are taking the acoustic engineering of electric sports cars to a new level, where the electrified powertrain becomes something that really enhances the dynamic driving experience and brand image.”

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NOTES TO EDITORS:

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