WELCOME TO THE PASSENGER ECONOMY:

How Audio and Acoustics will create new In-Car Experiences in the Autonomous Car



The arrival of the autonomous car heralds the single biggest shift in personal mobility since the invention of the horseless carriage. With it, drivers will soon be liberated from the task of controlling their vehicles, as the in-car environment becomes all the more vital to every journey. The car of the future will be a fully-functional mobile office, living room, and movie theater and, as consumer requirements shift, there will be dramatic changes to features and space that go beyond driving. At this pivotal moment in the automotive industry, the in-car passenger experience has become just as important to consumers as a vehicle's performance and speed and it opens new doors for automakers to deliver intuitive, personalized experiences in an increasingly connected world.

There is little doubt innovation in audio and acoustics will play a major role in the evolution of the in-car environment. Technology is set to deliver so much more than simply listening to music or a podcast on the go, and HARMAN is ideally positioned to support the development of a highly differentiated, automotive cabin. With over 60 years' experience in acoustic design and signal processing, with award-winning, industry-first solutions HARMAN is no stranger to forging new ground. This new era in automotive presents exciting opportunities for HARMAN as a brand, in the audio divisions and beyond, as we seek to elevate connected lifestyles though personalized, intelligent and innovative solutions.

"The in-car audio experience in autonomous vehicles will be much more than just listening to music."

HARMAN's SUMMIT Next platform is a major example of the way in which smart audio is reinventing the in-car experience. Without the physical requirement to drive, the system's Ambisonics Escape function can metaphorically whisk passengers away from the busy traffic that surrounds them, to a more tranquil place. Using a 360-degree sound field, the system sonically recreates real-world environments, allowing passengers to listen to the sound of the ocean lapping at the beach or the wind rustling through the leaves of a forest.



Using the same principles, the system can improve productivity through in-car conferencing technology that matches conference audio with the video location of participants, giving the sensation of being in a real meeting room. It also incorporates in-car theater, combining HARMAN's QuantumLogic Immersion professional movie theater audio processing with segment-leading video, to bring passengers closer to a real movie experience than ever before.

In addition to the HARMAN SUMMIT Next platform, HARMAN will demonstrate at the Geneva Motor Show its vision of audio in the autonomous car in the Rinspeed Oasis.







"Designed for the "passenger economy", SUMMIT Next delivers experiences from in-car theater, to enhanced spatial phone call audio, to connecting you to the world outside your vehicle like never before"

The car's Harman Kardon sound system boast a total of 45 speakers with a 24-channel DSP setup and 6 mini amplifiers delivering 400 watts of output. Beyond others the sound tuning of the Oasis adjusts to the position of the seat, e.g. whether it is in an upright position or pushed back and uses eye-tracking to allow the sweet spot to follow the passenger depending on where he is sitting, meaning that the adaptive sound tuning will react to where the head is positioned.



What was once confined to the realms of sci-fi, is now a very real proposition for consumers. It presents a host of fascinating opportunities for automakers and, when it comes to audio and acoustics, HARMAN will continue to push the boundaries to reshape the future of sound.

HARMAN at the Geneva Motor Show 2017

Visit the HARMAN showcase during the Geneva Motor Show 2017 for demonstrations of the company's full portfolio of connected car and lifestyle audio systems that enable the connected life. The HARMAN showcase is located at the Rinspeed booth Nr. 6240 in hall 6.

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