



Scott Keogh



Ulrich Hackenberg



Ricky Hudi

Speeches

**International CES 2015
Audi Press Conference**

January 6, 2015 | Las Vegas



Scott Keogh
President, Audi of America

Speech Audi Press Conference
International CES 2015, Las Vegas
January 6, 2015

-Check against delivery-

Ladies and gentlemen, thank all of you for coming to hear about the advances Audi has in store. Audi was the pioneer auto manufacturer at CES five years ago, and as I look around the hall, I see many others have followed.

History belongs to the bold and yesterday Audi made history. Twice. First, Audi established a new annual sales record in the U.S. by delivering 182,011 cars. Our fifth consecutive year of record sales. Second, with an automated test drive of more than 560 miles stretching from the heart of Silicon Valley to the hive of innovation here at CES, Audi proved that a true turning point for the automobile has arrived.

A team of Audi engineers and five trained journalists accomplished the world's longest piloted drive. This was no highly manipulated showcase around the block. In true Audi fashion, this test drive proved what is tantalizingly close to being ready for customers. This epic drive showed that piloted driving can safely and capably handle the challenges of the road each of us face every day – from big rig convoys to precisely overtaking slower moving cars and then moving back out of the passing lane when it is safe.

But handling freeway dynamics is not where the history stopped. The Audi A7 piloted driving concept that accomplished this mission featured the most advanced Human Machine Interface concept seen to date. The car AND the human behind the wheel communicate efficiently when seconds count.

This is innovation that can happen, rather than innovation some wish to happen. This was only the latest chapter in our history book. We have been leading the way in piloted driving for more than a decade now. This leadership edge is what is fueling the brand momentum for Audi in America and around the world.

In fact it is technology that helps increase desirability and drives good business via higher transaction prices. Customers have told us that technology is a reason for purchasing Audi's. Take both Audi connect and LED lighting. Over 67 percent of customers opt for Audi connect and over 10 percent for full LED lighting. Revenue from these technologies in 2014 is \$89 million.

Today, you will learn of other ideas surfacing from Audi secret labs continuing our track record from recent CES appearances as a true leader in the transformation of the car from gasoline, heavy metal and rubber into the world's grandest digital device.

- End -



Prof. Dr.-Ing. Ulrich Hackenberg
Member of the Board of Management of AUDI AG,
Technical Development

Speech Audi Press Conference
International CES 2015, Las Vegas
January 6, 2015

-Check against delivery-

Ladies and Gentlemen, from Silicon Valley to Las Vegas, more than 560 miles of piloted driving from California to Nevada. This tour is a masterpiece of Audi engineering and a new milestone in the history of piloted driving.

And it was only three months ago that we set another record. A piloted Audi RS 7 raced Hockenheimring in Germany at 240 km/h or 150 mph top speed. With this technology demonstration, we took piloted driving to its physical limits. With our tour to Las Vegas, we have demonstrated that we do more than just showing pioneering technology. We are ready for piloted driving on public streets.

And we keep going. This is what you can see from the motto of our CES 2015 presentation: We open “The Next Chapter” of innovation. We turn technical vision into reality - into products that are ready for series production.

Since last year, we have made big progress. Just a quick summary of where we stand today. At CES 2014, we announced [Google Smartphone Integration](#). Today, we have Apple Car Play and Google Android Auto on board.

Last year here in Las Vegas, we announced the [Audi virtual cockpit](#), with high-resolution display, next-generation Audi MMI and easy-to-handle applications for navigation and driver assistance. A few months later, the virtual cockpit became available to the third generation of the Audi TT* sports car, our product highlight 2014. Step by step, we will roll out the virtual cockpit to our product portfolio.

At CES last year, we announced [laser light](#) as the latest innovation for sharper, safer and more efficient light. At Le Mans, the 24 hours race end of June 2014, we presented laser light in our Audi R8 LMX * super-sports car and our Audi R18 e-tron quattro race car. Laser light is three times stronger than LED light and extends to several hundred meters. This technology was a big help for our 13th victory of the world’s most challenging long-distance race.

At CES 2014, we talked about the [Audi Smart Display](#). Today, you can find out more about the Audi tablet here in our Audi Q7 interior.



And finally, we talked about zFAS technology for piloted driving and parking. In 2014, we received official permission for piloted driving tests on public streets in Florida and California. This is a big move forward to bringing piloted driving and parking closer to series production.

As you can see, we deliver on the promise. That's how we shape the future of auto-mobility.

Ladies and gentlemen, today we present you another milestone: The Audi prologue piloted driving. All our latest innovation in electronics is part of this concept car. Let me show you what this means. With my LG Smartwatch Audi edition, I will call the car on stage.

With connected smart devices like this Smartwatch, you have any kind of car-related information on hand. Even more, this Smartwatch is a safe and convenient mobile key. Thanks to the excellent cooperation with LG, we can show you this kind of smart interaction today. I would like to take the opportunity to thank LG for all of their efforts to move this project forward.

The Audi prologue gives you an idea of how we foresee the future of the top segment. This car stands for sportiness and efficiency. It's a hybrid concept with a 4.0 TFSI engine and a total of 507 kW (690 hp) and 950 Nm of torque.

This car is also a masterpiece of Audi lighting technology. We have new functionalities for better visibility and better safety on board. Our next-generation matrix-laser light in combination with 3D glass and dynamic light animation creates unique effects. A laser in the center of the headlamps creates a high-resolution matrix to light the entire street. Five lenses extend the high beam range.

And the Audi prologue piloted driving shows you the future of the cockpit. It will go without any switches. The co-driver has a wide-screen display in front and will be integrated in a completely new way. A world premiere in the Audi prologue piloted driving interior is the touch-display on top of the middle-tunnel. It's a flexible OLED display from organic light emitting diodes with extremely sharp images. Thanks to the productive cooperation with Samsung Corporation, we are proud to present you this premiere here today. I would like to extend a warm thank you to Samsung.

In our new Audi Q7* and our new Audi A8, you will see some of the pioneering assistance systems we talk about today - and our next move to piloted driving for series products.

And, ladies and gentlemen, the Audi prologue goes beyond: This car is a great demonstration of how we envision the future of mobility. Our guiding principles for future automobiles will continue to be premium design, performance, efficiency, infotainment and connectivity. With global megatrends in mind such as urbanization, digitization and connectivity, future mobility solutions need to be multi-varied.

For example, we will see a broad portfolio of drivetrain technologies including pathfinding charging solutions. Audi Wireless Charging, as you can see it from this concept car, will become an industry standard in the future.

Audi is shaping the future of mobility with pioneering solutions. As an innovation-focused carmaker, this is our mission. And this is what "Vorsprung durch Technik" stands for. Thank you.

- End -



Ricky Hudi
Executive Vice President, Electronic Development
AUDI AG

Speech Audi Press Conference
International CES 2015, Las Vegas
January 6, 2015

-Check against delivery-

Ladies and Gentlemen, I am delighted to present you some of the fascinating solutions that electronics in the car can take us to.

Connectivity

We all know that cars are turning more and more into mobile communication centers. With Audi connect, our models are the perfect mobile device for our customers.

As a world premiere, I am pleased to familiarize you with the interior and electronic features of the new Audi Q7*. No other vehicle in the world currently offers more connectivity, infotainment and driver assistance systems. Like every new Audi model, the Audi Q7 of course comes equipped with fully integrated LTE high-speed data. This has become possible thanks to our long-established partnership with Qualcomm.

LTE enables us to offer fantastic features for the Audi Q7 right from the start: Google Earth navigation, Google voice POI search, Google Street View, online traffic information, Internet radio and cloud music services. And now, with Audi as a pioneer in bringing connectivity into the car, we are opening up a new chapter: Smart devices and their seamless integration into the car.

Last year at CES we announced that Audi –as a founding member of the Open Automotive Alliance– will be one of the first carmakers to connect Android devices in its vehicles. We are now fulfilling this promise.

The new Audi Q7 is the first Audi model to be equipped with the smartphone interface. In other words, we now include Google Android Auto for customers who have Android devices. And we made Apple Car Play available for customers with iOS devices. Both are tailored to in-vehicle use. All functions can be controlled by MMI and voice control. We are delighted to present this dazzling array of Audi connect features here.

And there is still more. Audi is the first carmaker to create an entirely new generation of in-car-entertainment systems: The Audi tablet. Another promise that we have now fulfilled, after just one year in development.

The new Audi Q7 is the first model to feature it. It has a brilliant 10.1 inch full-HD display and a smart housing made of brushed aluminum connected to the vehicle via Wi-Fi interface. The Audi tablet has been specifically developed for in-car use and meets all vehicle requirements, for example crash resistance.



It even copes with high or very low temperatures with no difficulty. And via Android App Store you can access your preferred apps, movies, music, audio books and e-books.

Infotainment

At this point, some of you may be asking “What are these Audi engineers doing differently so that they are able to bring these fantastic features to their cars so quickly?”

All of these new functions became possible by a revolutionary approach in our electronics architecture. That is why we have introduced the modular infotainment platform (MIB). Thanks to our close collaboration with NVIDIA, Audi has the ability to integrate these technologies quickly into the vehicle and run the same innovation cycle as the consumer electronics industry. Let me thank Jen-Hsun Huang, Co-founder and CEO of NVIDIA, for this brilliant partnership.

Human-Machine Interface (HMI)

Last year we gave an outlook to the next generation of the Audi MMI in the new Audi TT*, which is now on the road: The Audi virtual cockpit.

I am pleased to present to you another a world premiere in the new Audi Q7: The Audi virtual cockpit in combination with the MMI display in the center and the new MMI all-in-touch. The driver can easily write characters on the large touchpad or zoom and scroll the map by gesture control.

With our new generation of Audi MMI in the Audi TT and Audi Q7 we are the first in the world to offer natural language control for the complete system. The system understands expressions as used in everyday language. For instance, simple commands such as “Where can I get gas?” or “Where is the nearest shopping mall?”

The Audi Q7 is not the only model on which we have fitted all of this trailblazing innovation. Our new masterpiece –the Audi prologue piloted driving– combines these latest technologies with all of our ideas for the future.

Piloted Driving

Audi is doing very pioneering work in the field of piloted driving. At 2013 CES, we were the first car maker in the world to get a testing license here in Nevada.

Last year we demonstrated our success in development: The technical concept of piloted driving has been validated and we were already using zFAS, the central driver assistance control unit on the road. To extend our lead in piloted driving, all test results from our latest activities –such as the piloted test drive from Silicon Valley to Las Vegas– are important milestones on our way to series production technology.

The new Audi Q7 will offer absolutely everything that is currently allowed under the regulations, from adaptive cruise assist to traffic jam assist.

The next level to realize fully piloted driving, in other words entirely “hands-off” driving, will require three major technical steps:

- First: The vehicle must be capable of recognizing every situation safely and reliably with the aid of redundant sensors all around the vehicle.
- Second: The zFAS control unit will also interpret this information correctly and make safe, correct decisions with lightning speed.



- Third: A new safety architecture will be needed in the vehicle, with systems and functions monitoring each other, or certain actuators such as the brakes having a redundant design.

Our end-to-end architectural approach to the zFAS also paves the way for another revolution: The intelligent and learning vehicle. Ladies and gentlemen, I am delighted to announce that this is the first car in the world that is so intelligent to continuously extend its knowledge.

Thanks to the CUDA technology (Compute Unified Device Architecture) on the NVIDIA Tegra K1 and, in future, on the new NVIDIA Maxwell X1, an enormous amount of parallel processing can already take place in the zFAS. The car is permanently connected to the cloud. This offers a fantastic scope.

Data processing takes place in the cloud, using machine learning and artificial intelligence algorithms to send this information back to the car. The car itself permanently increases its knowledge, making this a form of continuous learning. With every mile it drives, every hour, every day and in every situation, the car is learning more and more – it becomes increasingly intelligent.

The message for piloted driving at the CES 2015 is: Audi is continuing to extend its lead and is already using series production technology.

- End -

Contact

Brad Stertz

Corporate Communications, Audi of America
Phone +1 703 364 7440
mailto:brad.stertz@audi.com

Stefan Moser

Communications Product and Technology
Phone: +49 841 89-32260
mailto:stefan1.moser@audi.de

International CES 2015 | January 6, 2015 | Las Vegas

* The collective fuel consumption of all models named above and available on the German market can be found in the list provided at the end of this speech.



Fuel consumption figures of the models named above:

Audi Q7:

Combined fuel consumption in l/100 km: 8.3 – 5.7

Combined CO2 emissions in g/km: 193 - 149

Audi TT:

Combined fuel consumption in l/100 km: 7.5 – 4.2

Combined CO2 emissions in g/km: 174 - 110

Audi R8 LMX:

Fuel consumption, combined in l/100 km: 12.9

CO2 emissions, combined in g/km: 299