

Virtual reality entertainment holoride on the road to series maturity

- New technology merges VR contents with driving movements in real time
- Showcase rides with new content demonstrate the potential of holoride
- Start-up visits leading game studios at California roadshow

Ingolstadt, September 3, 2021 – Travel to virtual worlds from within an Audi is soon a possibility. In the near future, back seat passengers can put on virtual reality (VR) glasses to dive into games, movies, and presentations. The clou: The virtual content adapts to the driving movements of the car in real time. At a roadshow in California, holoride visited potential game studios to excite the best content suppliers about the start-up's new technology.

Start-up holoride wants to make car rides a multimodal experience. In the future, passengers on the back seat can use VR glasses to experience movies, video games, and interactive content much more realistic than today. This is made possible by a new technology that adapts the virtual contents in real time to the vehicle's driving movements: if the car is taking a right curve, the spaceship in the imaginary world will also fly to the right, as an example. If the car accelerates, the spaceship speeds up too. Initiated by Audi, development of this innovative VR or XR (extended reality) technology is being advanced and commercialized for different manufacturers by tech entertainment start-up holoride. The motion-synchronized voyage through virtual worlds also reduces the common phenomenon of car sickness often experienced by passengers reading a book or enjoying audiovisual media on electronic tablets.

holoride creates new media category: "Elastic content"

A platform to enable content developers to create additional extended reality formats, holoride published the so-called Elastic Software Development Kit (SDK) on its privately developed and newly launched holoride Creator Space. The Elastic SDK was developed for the Unity game engine and allows developers to access tools to create immersive gaming experiences and entertainment formats. "Elastic content" stands for an entirely novel media category made for driving cars that enables a new approach to creating content. From space adventures to streaming the latest blockbuster movies and tours through historic cities – the possibilities know practically no bounds.

Virtual journey through time in the Audi e-tron* through Salzburg

Attendees of the Salzburg Festival were treated to a first taste of this edutainment format. In the back of an Audi e-tron*, guests approached several locations that played a particular role in

The equipment, data and prices specified in this document refer to the model range offered in Germany. Subject to change without notice; errors and omissions excepted.

*Information on fuel consumption and CO₂ emissions as well as efficiency classes in ranges depending on the tires and alloy wheel rims used and on the equipment and accessories of the car. The collective fuel consumption values of all models named and available on the German market can be found in the list provided at the end of this MediaInfo.





the festival's development. In the Audi e-tron^{*}, passengers experienced historical scenes from the festival's past via VR glasses. Especially musical milestones were at the center of the threedimensional animated VR journey through Salzburg.

Roadshow through California

holoride was first presented at CES 2019 in Las Vegas. In cooperation with Disney, holoride created an in-vehicle, action-packed VR gaming experience based on the character Rocket Raccoon from Marvel's Guardians of the Galaxy. On a roadshow through California from Los Angeles to San Francisco, holoride visited other production and game studios to demonstrate the technology's possibilities to potential partners. The roadshow also afforded the opportunity to win over journalists who were given the chance to experience the current state of the technology.

Virtual demo rides in Ingolstadt and Munich

Immediately following the roadshow, journalists in Ingolstadt were given the opportunity to test the possibilities afforded by the state-of-the-art in VR entertainment. Participants were invited to navigate a mystical action game via an avatar. Visitors to IAA 2021 in Munich, this year under the fitting motto "Let's talk about progress," can be among the first to take demo rides with holoride.

More possibilities through autonomous driving

In the future, the progressive automation of travel by car will not only make new forms of entertainment possible while driving – it will also open up increased opportunities to learn and work on the road. When drivers also no longer have to concentrate on driving in the future, they can turn their attention to other things: working, reading, watching movies – or gaming.

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About holoride

German startup holoride is developing a completely new content category for passengers by linking extended reality (XR) content with data points from the vehicle in real time. These data points include physical responses like acceleration and steering, traffic information, and driving routes and times. holoride technology makes a new immersion in every kind of XR content possible, creating a breathtakingly immersive experience and, beyond that, significantly reducing the symptoms of motion sickness. The entertainment tech startup was founded in Munich in late 2018 by Nils Wollny, Marcus Kühne, Daniel Profendiner, and Audi, which holds a minority stake in the startup. holoride was honored as "Best of CES" (Las Vegas, 01/19). Moreover, holoride was selected by Time magazine for its 100 Best Inventions of 2019 list in November of that year, is part of the global innovation platform STARTUP AUTOBAHN powered by Plug and Play, and was able to win the prestigious SXSW Pitch in spring 2021 along with designation as Best in Show.

You can find additional information about holoride at www.holoride.com

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The Audi Group, with its brands Audi, Ducati and Lamborghini, is one of the most successful manufacturers of automobiles and motorcycles in the premium segment. It is present in more than 100 markets worldwide and produces at 19 locations in 12 countries. 100 percent subsidiaries of AUDI AG include Audi Sport GmbH (Neckarsulm, Germany), Automobili Lamborghini S.p.A. (Sant'Agata Bolognese, Italy), and Ducati Motor Holding S.p.A. (Bologna/Italy).

In 2020, the Audi Group delivered to customers about 1.693 million automobiles of the Audi brand, 7,430 sports cars of the Lamborghini brand and 48,042 motorcycles of the Ducati brand. In the 2020 fiscal year, AUDI AG achieved total revenue of \in 50.0 billion and an operating profit before special items of \in 2.7 billion. At present, 87,000 people work for the company all over the world, 60,000 of them in Germany. With new models, innovative mobility offerings and other attractive services, Audi is becoming a provider of sustainable, individual premium mobility.



Fuel consumption of the models named above

Information on fuel/electricity consumption and CO₂ emissions in ranges depending on the tires and alloy wheel rims used and on the equipment and accessories of the car.

Audi e-tron

Combined electric power consumption in kWh/100 km (62.1 mi): 26.2–22.6 (WLTP); 24.6–23.7 (NEDC); combined CO_2 emissions in g/km (g/mi): 0 (0)

The indicated consumption and emissions values were determined according to the legally specified measuring methods. Since September 1, 2017, type approval for certain new vehicles has been performed in accordance with the Worldwide Harmonized Light Vehicles Test Procedure (WLTP), a more realistic test procedure for measuring fuel consumption and CO₂ emissions. Since September 1, 2018, the WLTP has gradually replaced the New European Driving Cycle (NEDC). Due to the realistic test conditions, the fuel consumption and CO₂ emission values measured are in many cases higher than the values measured according to the NEDC. Vehicle taxation could change accordingly as of September 1, 2018. Additional information about the differences between WLTP and NEDC is available at www.audi.de/wltp.

At the moment, it is still mandatory to communicate the NEDC values. In the case of new vehicles for which type approval was performed using WLTP, the NEDC values are derived from the WLTP values. WLTP values can be provided voluntarily until their use becomes mandatory. If NEDC values are indicated as a range, they do not refer to one, specific vehicle and are not an integral element of the offer. They are provided only for the purpose of comparison between the various vehicle types. Additional equipment and accessories (attachment parts, tire size, etc.) can change relevant vehicle parameters, such as weight, rolling resistance and aerodynamics and, like weather and traffic conditions as well as individual driving style, influence a vehicle's electrical consumption, CO₂ emissions and performance figures.

Further information on official fuel consumption figures and the official specific CO₂ emissions of new passenger cars can be found in the "Guide on the fuel economy, CO₂ emissions and power consumption of all new passenger car models," which is available free of charge at all sales dealerships and from DAT Deutsche Automobil Treuhand GmbH, Hellmuth-Hirth-Str. 1, 73760 Ostfildern-Scharnhausen, Germany (www.dat.de).