

Robo-Taxis: VIRTUAL VEHICLE and AVL present research project SHOW at MotionExpo

The European SHOW research project is currently the largest and most comprehensive initiative for the testing of automated vehicles in urban environments. VIRTUAL VEHICLE, together with AVL, is currently conducting test drives in Graz under particularly challenging conditions. The project will be presented to the public for the first time at MotionExpo Graz from March 10-12. Interested parties will be able to enjoy automated chauffeuring between Graz Puntigam public transport hub and Center West shopping center in the upcoming week.

Graz (Austria), March 02, 2023 – Automated vehicles (AVs), colloquially referred to as "robo-taxis," represent a unique opportunity for fundamental change in urban mobility. However, only if they are integrated into a public transport network. AVs, when being part of connected fleets, could significantly reduce the number of cars on the road. Gaps in the first and last mile are closed and people can get to places that were previously inaccessible and unreachable via public transport. A higher frequency also improves the acceptance of the transport service.

SHOW - an ambitious research project

To this end, the SHOW research project - "**SH**ared automation **O**perating models for **W**orldwide adoption" brings together 69 international research partners. Real urban demonstrations are being carried out in 20 European cities. The goal is to realize sustainable urban transportation through new technical solutions and business models. Therefore, shared, connected, electrified fleets of automated vehicles are being introduced in coordinated commercial units of public transport (PT), mobility services (MaaS) and logistics (LaaS). In this way, SHOW project partners aim to promote and evaluate the transformation of the current, predominantly static urban transport environment and change it into a dynamic, fully sustainable ecosystem. The common driving force is automation, electrification, cooperativeness and inclusion.

VIRTUAL VEHICLE and AVL invite to test rides in Graz

Graz-based research center VIRTUAL VEHICLE coordinates the test drives of the project in Graz and provides the necessary software for automated driving. Together with AVL, test drives with two vehicles will be carried out as part of this project following MotionExpo from March 13 - 17, 2023. Interested parties get the chance to take a ride in one of the two automated cars that connect the Puntigam local transport hub with the Center West shopping center in Graz. The big challenge is to test automated driving crowded places and busy roads with other vehicles.

DI Joachim Hillebrand, VIRTUAL VEHICLE, project manager of the test drives: "The special feature about this research work is the testing of automated driving at crowded areas and in combination with public transport. Among other places, this is being done at a mass transit hub where there are suburban trains, streetcars, buses and many pedestrians. Automated vehicles must be able to cope with the circumstances in this environment in order to get accepted by people as a means of transport for transfer."

"At MotionExpo, we will show one of the two research vehicles and explain the complex challenges they have to overcome in automated test operation. Safety is the top priority. During the week of March 13 - 17, 2023, our two research vehicles will then be available at the Puntigam traffic hub for a ride to Center West shopping center and back. We look forward to receiving valuable impressions and feedback from our passengers!"

Dr. Jost Bernasch, Managing Director of VIRTUAL VEHICLE: "The mobility of the future is sustainable, digital and multimodal. As Europe's largest research center for digital product development, "Green Digital Mobility" is our claim and the driving force for all research activities. VIRTUAL VEHICLE provides 4technology for automated vehicle functions in the EU project SHOW and demonstrates applicable solutions in real urban scenarios."

"Environmentally sustainable mobility in today's crowded cities can only succeed if we reduce the number of vehicles – but without reducing comfort for citizens. This is where automated mobility solutions will offer great opportunities. Automated vehicles don't have to be picked up, they drive by themselves. You don't even have to own a car, find a parking space, or have a driver's license. Automated mobility solutions can become as convenient as a cab is today, but with affordable prices for everyone."

DI Alexander Moschig, AVL, Project Manager: "Public transport aims to carry people safely and efficiently. The complex automation of this targeted use case of mobility requires a high degree of precision and traceability. AVL integrates, tests and refines technical solutions to achieve more acceptance in the target group and to help make urban transport more sustainable."

Dr. Mihai Nica, AVL, Global Head of ADAS/AD and Connectivity: "Function- or software-defined vehicles represent both the present and the future of mobility. The car is the new 'smartphone on wheels'. Highly automated vehicles provide for more safety, flexibility and pave the way for inclusive mobility. Thanks to the efficient and intelligent operation of a vehicle, the reduction of CO₂ in road traffic can be advanced. AVL has set a milestone by building an "Autonomous People Mover Demonstrator". Under the motto "Styria as a technology driver" and also through its involvement in renowned EU research projects, AVL is positioning itself as one of the leading companies in the field of driving assistance and automated driving."

Further information on MotionExpo in Graz: www.motionexpo.at

Information on the EU research project SHOW: www.show-project.eu

Test drives with the SHOW Robo-Taxis:

When: March 13 - 17, 2023 between 2:00 p.m. and 6:00 p.m.

Where: Meeting point: terminus of streetcar line 5, Puntigam.

For whom: Public for everyone who does not need a child seat (> 135 cm; > 14 years). One round takes about 10 minutes - afterwards we ask for a short feedback in a questionnaire.

VIRTUAL VEHICLE Research GmbH

Virtual Vehicle Research GmbH, based in Graz, Austria, is Europe's largest research center for virtual vehicle development in the railroad and automotive sector with more than 300 employees. The scientific focus is on interdisciplinary cutting-edge research for climate-neutral mobility. The goal is to develop reliable, software-defined systems that will secure sustainable competitive advantages and future jobs.

VIRTUAL VEHICLE cooperates with about 100 national and international industry partners (OEMs, Tier-1 and Tier-2 suppliers as well as software providers). Partnerships with around 50 scientific institutions underpin its reputation as an innovation catalyst for vehicle technologies of the future.

For more information: www.v2c2.at

About AVL

With more than 10,700 employees, AVL is one of the world's leading mobility technology companies for development, simulation and testing in the automotive industry, and beyond. Drawing on its pioneering spirit, the company provides concepts, solutions and methodologies for a greener, safer and better world of mobility.

From ideation phase to serial production, the company covers vehicle architectures and platform solutions including the impact of new propulsion systems and energy carriers. As a global technology provider, AVL's offerings range from simulation, virtualization and test automation for product development to ADAS/AD and vehicle software. The company combines state-of-the-art and highly scalable IT, software and technology solutions with its application know-how, thereby offering customers extensive tools in areas such as Big Data, Artificial Intelligence, Cybersecurity or Embedded Systems.

AVL's passion is innovation. Together with an international network of experts at more than 90 locations and with 45 Tech and Engineering Centers worldwide, AVL is supporting customers in their mobility ambitions. In 2021, the company generated a turnover of 1.6 billion Euros, of which 12 % are invested in R&D activities to ensure continuous innovation.

For more information: www.avl.com

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