‘Follow the Vehicle’: ŠKODA AUTO and the VŠB - Technical University of Ostrava collaborate on automated car convoy project

- **Collaboration between ŠKODA AUTO and the VŠB - Technical University of Ostrava to develop new assistance systems as part of their joint ‘Follow the Vehicle’ project**
- **Development of smart city technology and intelligent transport systems**
- **Two ŠKODA SUPERB iVs undergoing test drives on university campus**
- **Potential for car-sharing service providers, car rental companies or fleet operators**

Mladá Boleslav, 19 November 2020 – ŠKODA AUTO and the VŠB - Technical University of Ostrava are collaborating on new technologies for assistance systems as part of their joint ‘Follow the Vehicle’ project. The aim is to have autonomous cars follow a manned lead vehicle. Two correspondingly configured ŠKODA SUPERB iVs are currently undergoing test drives on the campus of the VŠB - Technical University of Ostrava.

Christian Strube, ŠKODA AUTO Board Member for Technical Development, said: “‘Follow the Vehicle’ showcases our current assistance systems’ high technical standard and impressively illustrates the opportunities these systems are capable of unlocking, when combined with other relevant technologies in the field of autonomous driving. The project also allows us to commit to our role as a promoter of technical education in the Czech Republic. We are delighted to be working with students and researchers from the VŠB - Technical University of Ostrava, who – with their ideas, expertise and devotion – are instrumental to the project.”

Professor Václav Snášel, Rector of the VŠB - Technical University of Ostrava , added: “In the ‘National Competence Center – Cybernetics and Artificial Intelligence’ or TAČR, which is responsible for the development and research of autonomous driving systems, we have succeeded in bringing together experienced researchers and students from various disciplines. Autonomous driving requires a multidisciplinary approach, and by actively working together, we have established principles and effective alliances between experts from the university and from ŠKODA AUTO’s development department. We believe that we will intensify this collaboration further in future, promoting professional development whilst also involving new, young researchers, from whom the Czech automotive industry will benefit.”

The principle behind the ‘Follow the Vehicle’ project is ‘two cars, one driver’. The lead vehicle is driven by a human, determining route, speed, lane and other parameters. Data required for steering input, acceleration and braking is transmitted to the autonomous car by radio, which follows the lead vehicle at a distance of up to ten metres.

Before the start of the journey, both vehicles are provided with a digital code. The test vehicles, two ŠKODA SUPERB iV, are equipped with state-of-the-art technology in the fields of smart city and intelligent transport systems. Car-to-X technology ensures communication between the test cars and other vehicles as well as with the traffic infrastructure. Data is exchanged via ETSI ITS-G5, the standard for vehicular communication, and the 4G, LTE and 5G mobile networks.

Standard factory –installed as well as special sensors, radar- and camera-based systems and a specially fitted communication unit for data processing allow the SUPERB iVs to identify images and 3D objects. They read a variety of different data, such as the vehicle's current location and driving-related parameters. The system monitors the car's surroundings and current traffic in real time.

ŠKODA AUTO continues to be fully committed to the Czech Republic's technical and vocational education, as can be seen in its collaboration with the VŠB - Technical University of Ostrava (https://www.vsb.cz), for instance. The vehicle electronics and computer science students have been heavily involved in the 'Follow the Vehicle' project, allowing them to gain valuable practical experience and establish business relations with the ŠKODA AUTO engineers.

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Animation and media images:

Animation: 'Follow the Vehicle': ŠKODA AUTO and the VŠB - Technical University of Ostrava collaborate on autonomous car convoy project
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Source: ŠKODA AUTO

ŠKODA AUTO

- is this year celebrating 125 years since the company was founded during the pioneering era of the automobile in 1895, making it one of the longest-established car manufacturers in the world.
- currently offers its customers ten passenger-car series: the CITIGO^{e} iV, FABIA, RAPID, SCALA, OCTAVIA and SUPERB as well as the KAMIQ, KAROQ, KODIAQ and ENYAQ iV.
- delivered 1.24 million vehicles to customers around the world in 2019.
- has belonged to Volkswagen Group since 1991. The Volkswagen Group is one of the most successful vehicle manufacturers in the world. In association with the Group, ŠKODA AUTO independently develops and manufactures vehicles, as well as components such as engines and transmissions.
- operates at three locations in the Czech Republic; manufactures in China, Russia, Slovakia and India mainly through Group partnerships, as well as in Ukraine and Kazakhstan with local partners.
- employs approximately 42,000 people globally and is active in more than 100 markets.
- is pressing ahead with the transformation from a traditional car manufacturer to the ‘Simply Clever company for the best mobility solutions’ as part of the ŠKODA 2025 Strategy.