Media Information

Volkswagen Commercial Vehicles, Argo AI and MOIA show first ID.BUZZ prototype for autonomous driving

- Developed to relieve congestion and increase safety in cities
- Presentation at Volkswagen Group event "New Auto Night" on the eve of the IAA Mobility 2021
- Self-driving vehicles based on the future ID. BUZZ use a combination of cameras, lidar- and radar-sensors
- Mobility service provider MOIA will be the first user

Hanover/Munich, September 5, 2021 - In black and white camouflage and with high roof structures, it rolls guietly into the hall where Volkswagen Group's New Auto Night takes place on the eve of the IAA Mobility 2021: One of the first five self-driving test vehicles of the fully electric ID. BUZZ AD¹ (Autonomous Driving) from Volkswagen Commercial Vehicles (VWCV), the series versions of which will be deployed in commercial mobility services such as MOIA beginning in 2025. Munich is also the European headquarters of partner Argo AI, the global autonomous driving technology company developing the self-driving system (SDS), including maps, hardware, software, and cloud-support infrastructure that supplies the ID. BUZZ AD¹. Starting in 2025 in Hamburg, the self-driving ID.BUZZ AD¹ will bring its passengers to their destination in a ridepooling service operated by MOIA. "Volkswagen Group is in a transformation from a vehicle manufacturer to a leading, software-driven global mobility provider," explains CEO Dr. Herbert Diess at the event. "We are the company that is redefining mobility – with sustainable, connected and safe mobility solutions for future generations."



For the development of its autonomous ID. BUZZ AD¹, Volkswagen Commercial Vehicles uses a new lidar sensor, Argo Lidar, which allows the vehicle to see objects from more than 400 meters away.

Argo is actively testing in many urban areas, also in Munich with the ID. BUZZ AD¹ prototypes. The Argo self-driving system comprises a suite of sensors, software, and the computer platforms to provide a 360-degree awareness of the vehicle's environment, predict the actions of pedestrians, bicyclists, and vehicles, and direct the engine, braking, and steering systems so that the vehicle moves safely and naturally, like an experienced driver.

Argo Al uses cameras, radar, and lidar to achieve safe self-driving. The company's proprietary sensor Argo Lidar sits high on the roof of the ID. BUZZ AD¹ prototypes, and can detect objects from a distance of more than 400 meters (1300 ft.). Its patented Geiger-mode technology has the ability to detect even the smallest particles of light (a single photon), so that even



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More at: www.vwn-presse.de objects with low reflectivity, like black-painted vehicles, can be detected and thus very precise representations of the environment are possible.

Testing of the ID.BUZZ AD¹ occurs in collaboration with Volkswagen Commercial Vehicles at the Argo AI development center in Neufahrn, near Munich. Argo also has a nine hectare closed-course near the Munich airport to test a variety of traffic situations unique to European driving conditions, in addition to their test track in the United States. "The ID.BUZZ AD¹ test fleet represents a milestone in our partnership with Volkswagen Commercial Vehicles," said Bryan Salesky, founder and CEO of Argo AI. "Building on our five years of development and learnings from our operations in large, complex U.S. cities, we are excited to soon begin testing on the streets of Munich in preparation for the launch of the self-driving commercial ridepooling service with MOIA."

With its plans for the development of autonomous driving services, Volkswagen Commercial Vehicles shows in the IAA environment how innercity traffic can be relieved by ridepooling and, at the same time, it's safer thanks to the self-driving system: "An environment recognition system from six lidar, eleven radar and fourteen cameras, distributed over the entire vehicle, can capture much more than any human driver can from his seat," explains Christian Senger, Head of Autonomous Driving at Volkswagen Commercial Vehicles. The brand has set up its own business unit for the development of autonomous driving and has acquired a stake in Argo Al.

While VWN and Argo AI are developing the autonomous vehicle and the self-driving system, MOIA is the third component for an autonomous mobility service. The Volkswagen subsidiary has extensive experience in the field of mobility services and fleet management. Within a very short time, MOIA has set up Europe's largest, all-electric ride pooling service with drivers. It has transported millions of passengers. As of 2025 MOIA will be the first user of the ID.BUZZ AD¹. "We bring our expertise to the cooperation with Argo AI and VWCV and will develop an autonomous mobility service in addition to our regular service," says MOIA-CEO Robert Henrich. "Cities all over the world want to make their traffic more efficient and more climate-friendly. Autonomous ride pooling improves urban mobility, increases road safety and make cities more attractive. Hamburg will be the first city to offer autonomous ride pooling."

¹ ID.BUZZ AD – This vehicle is not for sale

About Argo Al

Argo Al is a global autonomous vehicle technology platform company headquartered in Pittsburgh, Pennsylvania. The company is developing self-driving technology in partnership with leading automakers, including Ford Motor Company and Volkswagen Group, to make getting around cities safe, easy, and enjoyable for all. Argo Al employs more than 1,200 people with engineering centers located in Dearborn, Michigan; Cranbury, New Jersey; Palo Alto, California; and Munich, Germany. Argo is currently testing autonomous vehicles on public roads in Miami, Florida; Austin, Texas; and Washington D.C., as well as in Pennsylvania, Michigan, and California. For more information regarding Argo, please visit <u>www.argo.ai</u>

About MOIA

MOIA is a subsidiary of the Volkswagen Group. The company develops mobility services at its Berlin and Hamburg locations and works in partnership with cities and local public transport providers. MOIA is currently developing and implementing a ridepooling system to avoid individual car traffic and to use the road infrastructure more efficiently. Cities are relieved of traffic jams, noise and exhaust fumes. MOIA has been offering its ride pooling service in Hanover since summer 2018, with Hamburg being the first metropolis with a population of over a million to follow on April 15, 2019. More information at <u>www.moia.io</u>

Notes for editors: You will find this text and more pictures in our press database: <u>www.vwn-presse.de</u>

Volkswagen Commercial Vehicles: We Transport Success, Freedom and Future

As a leading manufacturer of light commercial vehicles, the Volkswagen Commercial Vehicles brand (VWCV) is reshaping the transportation of goods, services and people in a fundamental and lasting way. Our vehicles transport construction workers, families and adventurers, bread rolls, parcels and surfboards. Every day they help countless people all over the world to do a good job, they operate as mobile workshops and they bring paramedics and police personnel to wherever they are needed.

At our sites in Hannover (D), Poznań (PL), Września (PL) and Pacheco (ARG), around 24,000 employees produce the Transporter, Caddy, Crafter and Amarok model lines, and, as of 2022, will be producing the ID. BUZZ – the fully electric version of our iconic Bulli. Within the Volkswagen Group, VWCV is also the lead brand for autonomous driving and for mobility offerings such as Mobility-as-a-Service and Transport-as-a-Service areas in which we are shaping the future of mobility.

In this way, the brand is transporting the society of tomorrow with all its requirements for clean, intelligent and sustainable mobility. It is this that Volkswagen Commercial Vehicles stands for with its brand promise: We transport success, freedom and future.