

## **paragon's premiere at the CES – a world first in the area of AI and “perfect loudspeakers”**

- **Automotive supplier paragon and e-mobility subsidiary Voltabox at the trade fair together, for the first time**
- **Presentation of the digital voice assistance system Edwin, an intelligent speaker, and additional product solutions at the Consumer Electronics Show**
- **Trade fair visitors can test innovations from paragon in a multifunctional simulator**

**Delbrück, Germany, December 17, 2018 – From January 8 to 11, 2019, paragon [ISIN DE0005558696] will present its products at the Consumer Electronics Show in Las Vegas, Nevada, for the first time. The focus will be on paragon's most recent innovations in the Sensors, Interieur and Digital Assistance business units. These will include the intelligent voice assistant Edwin, a world first in the area of artificial intelligence, as well as a “perfect loudspeaker” that is operated by intelligent software. The e-mobility subsidiary Voltabox will also be at the paragon booth, being represented for the first time at one of the world's leading industry trade fairs for consumer electronics.**

Edwin is the intelligent digital voice assistant developed by the young subsidiary paragon semvox GmbH. It is based on artificial intelligence and gives automobile OEMs the ability to integrate digital voice control with relatively little effort – even into vehicle series that are already in production, for instance, as part of model maintenance. paragon will present this solution to the global public at the CES 2019 in its booth 9432 in the North Hall (LVCC).

A further highlight is the presentation of the “perfect loudspeaker.” It is based on intelligent software that compensates for distortions, allowing paragon to build significantly smaller loudspeakers. Automotive manufacturers save money and weight, since heavy and large bass speakers – also called subwoofers – are no longer necessary.

Moreover, paragon will show numerous additional product solutions from its various units. Its focus will be on trends in shared mobility, connectivity, autonomous driving, digital assistance,

emissions protection and electromobility. For example, visitors to the paragon booth will be given the opportunity of testing the functions of paragon's new external speaker. Beginning July 1, 2019, an acoustic vehicle alerting system (AVAS) will be mandatory in the EU for hybrid electric and electric vehicles. These systems are intended to allow pedestrians and bicyclists to hear electric vehicles. paragon made sure it would have the expertise and technology to meet this challenge by purchasing LPG GmbH, now called paragon electroacoustics GmbH.

paragon's wireless charging solution, which is integrated into doors and achieves charging power of up to 15W, is also innovative. Moreover, paragon's Seat Belt Observer, its sensor for fine dust particles DUSTDETECT®, its fine dust particles filter DUSTPROTECT and its new system for recording vital data for driver monitoring also offer proof of the innovative strength and expertise in systems found in its Sensors unit.

The wireless charging system integrated into vehicle doors lowers electromagnetic exposure for the passengers by reliably recognizing nearby chargeable end devices despite its lower electric power. It can be integrated either as a stand-alone application or via the vehicle network (CAN or LIN) and optionally configured with NFC functionality.

The Seat Belt Observer increases safety for the passengers by recognizing incorrectly fastened seat belts. In contrast to previously available systems, which only recognize a buckle that has been inserted, the sensor-based paragon system detects the actual status of how the safety belt is being worn by the passenger.

The fine dust particle sensor DUSTDETECT® can provide real-time measurement of the concentration of fine dust particles in the interior of the vehicle with a diameter of 2.5 µm, which are particularly harmful to health, and it can control the air supply in order to keep the impact on the passengers as low as possible. The "DUSTPROTECT" filter system ensures that fine dust particles do not enter the interior of the vehicle in the first place. Thus, it can even protect the occupants without interrupting the supply of fresh air.

The new system for recording vital data tracks important vital data from the driver, such as pulse and breathing, through sensors. This will allow tomorrow's autonomously driving vehicles to immediately react to emergency situations.

With the technical solutions paragon is exhibiting, the company is demonstrating that its strategic product development is oriented toward megatrends. The focus of these innovations lies on the needs of end users, meaning the driver and vehicle passengers. In this way, paragon's current product mix is oriented toward the mobility challenges of tomorrow. This product mix is based on the long-time expertise in electronics that the company has expanded in targeted ways, through acquisitions, and systematically through adding new fields of expertise.

The booth will also have a simulator in which paragon's product innovations can be tested in detail. For example, visitors can already get into the vehicle interior of a futuristic car, with various features that enable a completely new driving experience. With its simulation, the quickly growing company is making it possible to experience a number of products that it has either recently brought to market or is currently marketing to vehicle manufacturers.

In addition to paragon, the e-mobility subsidiary Voltabox will present its products and select application examples at the joint booth. The aspiring subsidiary, which is also listed on the market, develops and produces lithium-ion battery systems for industrial applications and select mass markets and represents the Group's broad portfolio in electrification. In addition to presenting its battery modular kit, during the CES Voltabox will focus on starter batteries for motorcycles and motorsports applications that can be controlled through apps, as well as on various advanced battery and charging systems for e-bikes and pedelecs in the premium segment.

The CES is one of the most important industry trade fairs worldwide for consumer electronics. It will take place at the beginning of next year in the Las Vegas Convention Center. In previous years, the topics of artificial intelligence and robotics, autonomous driving technologies and

vehicle technology, among other things, have become increasingly important. Klaus Dieter Frers and Dr. Matthias Schöllmann will be available as representatives of company management of paragon, as will Jürgen Pampel, Chief Executive Officer of Voltabox, among others, to speak with specialists at the CES.

**About paragon GmbH & Co. KGaA**

paragon GmbH & Co. KGaA (ISIN DE0005558696), which is listed in the regulated market (Prime Standard) of the Frankfurt Stock Exchange, develops, produces and distributes forward-looking solutions in the field of automotive electronics, body kinematics and e-mobility. As a market-leading direct supplier to the automotive industry, the company's portfolio includes the Electronics operating segment's innovative air-quality management, state-of-the-art display systems and connectivity solutions, and high-end acoustic systems. In the Mechanics operating segment, paragon develops and produces active mobile aerodynamic systems. With Voltabox AG (ISIN DE000A2E4LE9), a subsidiary that is also listed on the regulated market (Prime Standard) of the Frankfurt Stock Exchange, the Group is also active in the rapidly growing Electromobility operating segment with its cutting-edge lithium-ion battery systems developed in-house.

In addition to the company headquarters in Delbrück (North Rhine-Westphalia, Germany), paragon GmbH & Co. KGaA and its subsidiaries operate sites in Suhl (Thuringia, Germany), Landsberg am Lech, Neu-Ulm and Nuremberg (Bavaria, Germany), Korntal-Münchingen and St. Georgen (Baden-Württemberg, Germany), Bexbach and Saarbrücken (Saarland, Germany) and Aachen (North Rhine-Westphalia, Germany) as well as in Kunshan (China) and Austin, Texas (USA).

Additional information about paragon can be found at [www.paragon.ag](http://www.paragon.ag).

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