



MEDIA INFORMATION

5G: Ericsson, Audi and Sick present human-robot interaction in real time

- ▶ **Ericsson booth at the Hannover Messe with 5G network and human-robot interaction in real time**
- ▶ **A joint research project of Ericsson, Audi and Sick**
- ▶ **Secure collaboration between humans and machines thanks to low end-to-end latency**

Ingolstadt/Stockholm/Hanover, March 29, 2018 – An exciting demonstration at the 2019 Hannover Messe, where humans and machines work hand in hand: The Swedish network supplier Ericsson has brought a 5G network to its booth and is presenting, together with Audi and Sick, human-robot interaction in real time. A wireless production robot interacts with visitors there. The research project can be experienced at the Ericsson booth in Hall 8 of this year’s Industry 4.0 exhibition.

In the future, wireless production robots and employees will work hand in hand. Real-time interaction is essential for smooth collaboration. The key to this is 5G technology with its low latency, i.e. end-to-end delays of less than ten milliseconds, and its high level of network stability. As a result, interaction between humans and machines is made even safer thanks to 5G. The playful demonstration at Ericsson’s Hannover Messe booth is an example for the interaction in a factory. The robot has sensors connected to the 5G network. As soon as a visitor stretches his hand towards the robot, this is detected by those sensors. The robot then hands the guest a packet of mint sweets. “In the future, 5G will be essential to allow flexible, wireless robots to interact reliably and safely with people in production environments,” explains Jan-Peter Meyer-Kahlen, Head of the ICT Development Center Eurolab Aachen. “Because a robot connected via 5G can react to humans in real time only with extremely low latencies and very high availability.”

“The human-robot interaction at the Hannover Messe is just the beginning. With the introduction of 5G in car production, we are gaining completely new possibilities for connecting machines via radio,” says Dr. Henning Löser, Head of the Audi Production Lab, in which Audi has been testing a local 5G network for vehicle production together with Ericsson since August 2018. “We are absolutely convinced of the potential of the new technology. That’s why we want to set up an in-house 5G network that will facilitate agile and flexible production in the future.”

Sebastian Heidepriem, Head of Wireless Technologies at SICK AG, explains: “In connection with wireless industrial communication, 5G technology has key advantages for the use of our sensor solutions in various applications. This type of communication allows fundamental changes in



software architecture for more flexible automation. That's why we are evaluating 5G technology for industrial use. For example, we see an advantage in the fact that industrial vehicles can use 5G not only inside production halls, but also outside, and worldwide on public roads. The example of a robotics application at the Hanover Fair demonstrates how humans and robots will be able to collaborate better in the future thanks to reliable communication with low latency."

- End -

About AUDI AG:

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 18 locations in 13 countries. 100 percent subsidiaries of AUDI AG include Audi Sport GmbH (Neckarsulm), Automobili Lamborghini S.p.A. (Sant'Agata Bolognese, Italy) and Ducati Motor Holding S.p.A. (Bologna, Italy).

In 2018, the Audi Group delivered to customers about 1.812 million automobiles of the Audi brand, 5,750 sports cars of the Lamborghini brand and 53,004 motorcycles of the Ducati brand. In the 2018 fiscal year, AUDI AG achieved total revenue of €59.2 billion and an operating profit of €4.7 billion. At present, approximately 90,000 people work for the company all over the world, more than 60,000 of them in Germany. Audi focuses on sustainable products and technologies for the future of mobility.

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About Ericsson:

Ericsson enables communications service providers to capture the full value of connectivity. The company's portfolio spans Networks, Digital Services, Managed Services, and Emerging Business and is designed to help our customers go digital, increase efficiency and find new revenue streams. Ericsson's investments in innovation have delivered the benefits of telephony and mobile broadband to billions of people around the world. The Ericsson stock is listed on Nasdaq Stockholm and on Nasdaq New York. www.ericsson.com

Ericsson at Hannover Messe 2019

When in 2019, the 5G launch meets the Hannover Messe – the leading trade fair for industry 4.0 – Ericsson cannot be absent. On the contrary, the Swedish network supplier Ericsson is using the year of the 5G launch and the nomination of its home country Sweden as the Hannover Fair partner country in 2019 as an opportunity to appear at the leading trade fair for industry 4.0 with an expanded presence. Under the motto "Empowering Connectivity. Be Limitless with 5G," Ericsson will be present with its own 210-square-meter stand and also as part of the Swedish Pavilion "Sweden Co-Lab – Innovate with us!" Together with its partners, Ericsson will demonstrate exciting research cooperation projects, product solutions and applications in four different key areas at this year's Hannover Messe:

- ▶ Connections That Perform
- ▶ Smart Wireless Manufacturing
- ▶ Private Plant, Global Reach
- ▶ Robust, Secure & Safe Environments



Media representatives are of course cordially invited to visit the Ericsson booth at this year's Hannover Messe (Hall 8) between April 1 and 5. We are also part of the Swedish Pavilion "Sweden Co-Lab – Innovate with us!" in Hall 27. Discussions with Ericsson experts are of course possible. If you would like to register to visit the Ericsson booth, please send me an e-mail: ericsson.presse@ericsson.com.

Further information is available at <https://www.ericsson.com/hannovermesse>.

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