

## **TU Kaiserslautern (Technical University of Kaiserslautern) and MUGLER AG approach joint 5G research project for Smart Factories**

The TU Kaiserslautern implements several Private Networks for indoor and outdoor coverage with the latest 5G network technology as part of the 5G research project Kaiserslautern, Germany. The 5G research project Kaiserslautern is part of the 5G research initiative and is funded by the BMVI (Federal Ministry of Transport and Digital Infrastructure).

5G use cases are being planned and tested by the Institute for Wireless Communication and Navigation TU Kaiserslautern in cooperation with the German Research Center for Artificial Intelligence (DFKI) and other industrial and research partners for technological oriented research.

The MUGLER AG has accepted the tender for a subproject of the 5G Forschungsvorhaben Kaiserslautern during a public tendering process. The 5G Private Network for the Smart Factory and other pilot plants for future production in the DFKI was planned and implemented by MUGLER.

The TU Kaiserslautern evaluates and tests 5G network concepts for production and intralogistics in close collaboration with the DFKI and the SmartFactory KL e.V. With the Private Network provided by MUGLER, testing and further development of Open RAN networks will be made possible as well.

Prof. Hans Schotten, head of the 5G-Forschungsinitiative Kaiserslautern, comments: "Open RAN based networks are currently of high interest in the industry because the integration of application-specific functions and especially the integration of AI-functionality (Artificial Intelligence) for automated optimisation of the networks as well as the application performance in this 5G networking technology are relatively easy feasible. We want to test these possibilities." Another goal is the configuration of a vendor-independent platform for demonstration and evaluation to verify the interoperability of solutions of different vendors. Stefan Richter, divisional director of Private Networks at MUGLER, adds: "We are on the way of implementing a multi-vendor-concept for 5G standalone networks with the TU Kaiserslautern. We have deployed two different vendors for providing the core network and the radio access network".

The configuration of the 5G network was implemented by MUGLER and network equipment providers Druid Software and Airspan Networks. These two providers have implemented a variety of local and private networks internationally. Druid Software is an independent European software manufacturer with the focus on core networks for local mobile radio networks. The advantages of Druid's Raemis platform, an open architecture concept, being easy to incorporate and simultaneously highly scalable were convincing factors during the selection of partners for the 5G core network. The solution is suitable to be used as part of the research projects and for the implementation of local networks in medium-sized businesses. Tadhg Kenny, Senior Vice President at Druid emphasises: "The implementation of the 5G infrastructure at TU Kaiserslautern will be a significant key role in the development

and execution of practice-oriented use cases and will show the meaning of 5G technology for Industry 4.0.”

The provider for the radio access network, US-American company Airspan Networks, implemented its OpenRANGE-solution into the project. Airspan’s solution includes AirVelocity 2700, a Split 7.2 “Indoor” radio, as well as CU and DU software which are based on O-RAN and 3GPP standard. One reason for the cooperation on the part of TUK and MUGLER is the advantage of OpenRANGE being built on a virtualised network environment, where the baseband is fully implemented via software and can be used in connection with commercial of the shelf (COTS) server-hardware. The Open RAN Split 7.2A is implemented in addition to the 3GPP specified split 2 interface. With this, the basis to obtain interoperability, flexibility and diversity while selecting different components, is established. Giuseppe Bernini, Vice President Sales Europe from Airspan Networks supplemented: „We are convinced that 5G Open RAN is the enabler for further innovations in production and intra logistics in intelligent factories. We are pleased to introduce our OpenRANGE solutions to this revolutionary private network at the TU Kaiserslautern.“

---

About MUGLER

Founded in 1990, MUGLER has been a partner for sustainable telecommunications solutions in the B2B segments like mobile communications, fixed networks and local networks. MUGLER advises and supports businesses and institutions in initialising their own network. Turnkey-projects or individual services are being developed. As a full-range service provider for telecommunications, MUGLER provides solutions from the idea to the complete network for the full lifecycle of campus networks – from consulting and planning up to the realisation and implementation of the network. As an independent system integrator for communication networks, MUGLER works with network operators and system suppliers to provide custom solutions.

**Press contact**

Katrin Seemann

Corporate communications and Marketing, MUGLER AG

Phone: +49 3723 747-1279

Mail: [katrin.seemann@mugler.de](mailto:katrin.seemann@mugler.de)

[www.mugler.de](http://www.mugler.de)