



## Press Release

# Finding instead of searching – with 5G and real-time localization from TRUMPF

**Telekom and TRUMPF cooperate in the field of positioning systems for connected industry // Solution based on 5G campus edge environment and omlox standard // 5G ensures more flexibility in production**

*Bonn/Ditzingen, Germany, October 4, 2021* - Whether tools, machines, or material supplies: The indoor localization solution from the high-tech company TRUMPF determines the position of objects in production halls and warehouses – in real time. This avoids time-consuming searches in factory halls and makes manufacturing and logistics processes more efficient and easier to plan. As part of a joint project, Deutsche Telekom and TRUMPF have now succeeded in operating the localization technology solution in a 5G campus network. In the future, companies will be able to set up their localization systems flexibly and cost-effectively with this 5G-supported ultra-wideband technology and adapt them to their production processes. The plan is to jointly market the product next year.

"The cooperation between TRUMPF and Deutsche Telekom vividly demonstrates the synergies that are unleashed when leading companies in innovation-driving industries work together," said Claudia Nemat, Chief Technology and Innovation Officer at Deutsche Telekom. "Our high-performance 5G Campus networks, in combination with digital industrial applications, hold enormous potential for efficiency gains in industry. The implemented localization solution is just the beginning of our joint collaboration."

"Germany as an industry location occupies a leading position worldwide in mechanical and process engineering. As a leading user and leading provider of digitally networked solutions, we can further expand this role. Strong, cross-industry partnerships like this one are the key to achieving this," says Peter Leibinger, Chief Technology Officer and Vice Chairman of the Managing Board at TRUMPF.



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### **Locating with centimeter accuracy thanks to omlox**

For real-time location of objects on a factory floor, moving objects such as pallets or industrial trucks are fitted with tags that emit ultra-wideband (UWB) radio waves. Receivers, also called satellites, use these radio waves to locate the position of objects with an accuracy of up to 10 to 30 cm. What makes this technology so special is that it is based on the omlox standard. This means that terminal devices from different manufacturers can be combined and used together. The UWB positioning solution is particularly suitable for demanding industrial applications.

### **5G-supported positioning solution for flexible manufacturing**

Data from omlox satellites was previously transmitted via fixed cables. However, flexible production, especially for small batch and prototype production, requires regular changes in manufacturing and assembly concepts. The IT infrastructure, including the localization system, must also be able to be adapted accordingly. But until now, the fixed cabling hindered such short-term adaptation. The solution now being tested by Telekom and TRUMPF instead uses a mobile 5G campus network to transmit data from the satellites - with the same high-quality performance. This makes it possible to install and reposition the localization infrastructure within a factory building at lower cost and with less effort.

### **omlox standard on the edge cloud**

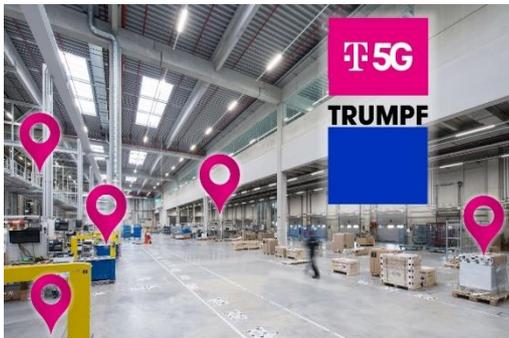
The jointly implemented solution uses the 5G campus network for data transmission to an edge cloud service from T-Systems. In the local cloud, edge computing is used to calculate the position of the transmitter, for example in a production hall. The position is made available to customer applications via the standardized omlox software interface. This can be, for example, a visualization on a map or the digital 3D replica of the production hall (digital twin). Omlox stands for "Open Location Standard" and is an interoperable standard for industrial location solutions. This omlox standard enables the localization of forklifts, drones, automated guided vehicles, or tools from different manufacturers with just one infrastructure. Position data can thus be used much more broadly in the factory. Even inside buildings, users can locate devices with high precision.

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### **Presentation at "Telekom Edge NXT@CCI" event**

The solution was implemented as a joint project between TRUMPF and Deutsche Telekom in the 5G test environment of the Center Connected Industry (CCI) at RWTH Aachen University. On 6th October 2021, the project will be presented there at the virtual T-Systems event "Telekom Edge NXT@CCI". For more information and to register free of charge for the event on edge-based solutions, please follow this [link](#).

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The tracking solution from TRUMPF ensures greater efficiency in manufacturing.



### **About TRUMPF**

TRUMPF is a high-tech company offering manufacturing solutions in the fields of machine tools and laser technology. The Company drives digital connectivity in the manufacturing through consulting, platform products and software. TRUMPF is a technology and market leader in highly versatile machine tools for sheet metal processing and in the field of industrial lasers.

In 2020/21, the company employed some 14,800 people and generated sales of about 3.5 billion euros (preliminary figures). With over 80 subsidiaries, the TRUMPF Group is represented in nearly every European country as well as in North America, South



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America and Asia. The company has production facilities in Germany, France, the United Kingdom, Italy, Austria, Switzerland, Poland, the Czech Republic, the United States, Mexico and China.

Find out more about TRUMPF at [www.trumpf.com](http://www.trumpf.com)

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