**Collaboration between industry and science: SICK AG supports research project on indoor localization**



**Waldkirch, September 2018 – Indoor localization is an important element for Industry 4.0 and offers future-oriented automation solutions for intralogistics, in particular. The most varied of sensor solutions must be integrated within a uniform localization system in order to ascertain the current locations of objects (e.g. fork-lift trucks, robots or pallets). This uniform reference framework is currently being developed in the Industrial Indoor Localization (IIL) research project in a collaboration between science and industry that is receiving support from the European Regional Development Fund (ERDF) and the Free and Hanseatic City of Hamburg. SICK AG is a member of the research consortium providing its practical application knowledge, e.g. on driverless transport systems in intralogistics.**

At the heart of the uniform localization system is an open-source Reference Architecture for Indoor Localization (RAIL) that is intended to simplify the provision of location-based services. The main aims that can be achieved through the intelligent use of localization technologies in indoor areas include increased productivity, improved quality and health & safety at work, as well as cost optimization. The RAIL system is deliberately open source in order to make its expansion easier and to offer a basis for new services – also beyond the field of intralogistics.

The sought-after standard solution is only possible through research carried out jointly by successful sensor and application developers (some of whom are in competition with one another) and research institutes: The consortium is made up of STILL and Jungheinrich (suppliers of intralogistics solutions), SICK and Pepperl+Fuchs (suppliers of sensor technology), as well as both the Institute of Aircraft Production Technology (IFPT) and the Institute of Logistics Engineering of the Hamburg University of Technology (TUHH).

“This cooperation between companies and research allows us to obtain new knowledge about the demands made of our own systems,” explained Dr. Christoph Reinke, Manager Applied Research and responsible for the IIL project at SICK AG. “If one estimates the potential of localization technology for industrial trucks in intralogistics alone then the automation of up to 25 percent of all fork-lift trucks, i.e. 250,000 vehicles per year, within the next five to ten years is realistic.” Whereby development of the necessary sensor products will be driven forward due to improved knowledge of the systems of the corporate partners, as well as the creation of new solutions based on the current state of research, according to Dr. Christoph Reinke.

The IIL research project started in September 2017 and should be completed in February 2019 with the implementation of a demonstration system using intralogistics as an example. A follow-up project lasting another 18 months is being planned.

**Pictures:**

1\_IIL-Projekt-Schaubild.jpg  
Caption: The development of a uniform Reference Architecture for Indoor Localization (RAIL) should enable autonomous and individualized processes in intralogistics, among other fields.

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Caption: This project is supported by the European Regional Development Fund (ERDF) and the Free and Hanseatic City of Hamburg.

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**About SICK**SICK is one of the world’s leading producers of sensors and sensor solutions for industrial applications. The company, founded by Dr. Erwin Sick in 1946 and based in Waldkirch-im-Breisgau near Freiburg, is a technology and market leader with a global presence – with more than 50 subsidiaries and associated companies, as well as numerous sales offices. SICK achieved Group sales of almost EUR 1.5 bn. in the 2017 fiscal year with almost 9,000 employees worldwide.