Press Release

Industrial Communication for Factories (IC4F)

Technology toolkit for a trustworthy industrial communication and computing infrastructure for the digitization in the manufacturing industry.

Berlin, March 1st, 2017: Today, IC4F - Industrial Communication for Factories is launching the flagship project with the goal of developing safe, robust, and real-time communication solutions for the manufacturing industry. By mid of 2020, 15 project partners from industry and research will develop a technology toolkit for a trustworthy infrastructure based on industrial information and communications technology (ICT). The project strives for an open architecture that extends across domains and allows a modular extension for new applications and communication technologies. In particular, the technology kit will enable users to select a specific migration path along with the right ICT technologies according to the new requirements in the scope of the industrial Internet / Industry 4.0. The project is supported by the Federal Ministry of Economics and Energy (BMWi) within the PAiCE funding program.

IC4F addresses the required confluence of information and communications technology as well as automation for upcoming use cases in the scope of Industry 4.0, i.e., the Industrial Internet. In particular, IC4F aims to build a reference architecture for communication technologies and a modular technology toolkit for a reliable industry communication and computing infrastructure.

The flagship project IC4F specifically targets future industrial applications and accordingly will present a communication reference architecture. In particular, the goal is a modular approach to enable a flexible composition of components. Key technologies include 5G, Multi-access Edge Computing (MEC), Cloud computing, virtualization, as well as industrial monitoring and analytics. The realization requires a holistic view on the underlying infrastructure – basically an Industrial Internet.
To ensure Germany’s position as a leading place for production and innovation is a central goal of the German government. To this end, leading industry partners in the areas of IT, communications and automation technology as well as leading research partners contribute to the project. The digital transformation of the manufacturing industry towards Industry 4.0 should be eased by the modularity of the system. Accordingly, the consortium is pursuing the goal of achieving a broad impact and supporting SMEs in particular.

The trend of digitization requires companies to innovate at a fast pace, pioneering, and presence of know-how to establish new platforms and standards. This includes future intelligent networks, connected Cloud platforms, and innovative services. These enable the confluence of digitized and traditional processes and thus, form the backbone of the fourth industrial revolution. The industrial Internet is becoming an important economic factor with a fundamental influence on the competitiveness of Germany.

The partners in the IC4F consortium ensure the leading role of the project due to their wide range of expertise. The bundling of competence of well-known project members and the consortium’s composition guarantees the realization of relevant ICT solutions. This enables a comprehensive and end-to-end integration of the demonstrators. Moreover, the consortium and the members of a broad user forum will introduce representative and priority use cases for the IC4F project.

The members of the consortium are: Fraunhofer Heinrich Hertz Institute HHI, Fraunhofer Institute for Integrated Circuits IIS, Robert Bosch GmbH, Deutsche Telekom AG, Gesellschaft für Produktionssysteme GmbH, brown-iposs GmbH, MAG IAS GmbH, Nokia, rt-solutions.de GmbH, Schindler Fenster + Fassaden GmbH, Siemens AG, STILL GmbH, Technische Universität Berlin, Technische Universität Kaiserslautern, and Universität Stuttgart. The consortium is led by the Fraunhofer HHI.