

PRESS RELEASE

EU-FP7 Project: Sense&React

Patras, Greece, March 2016

Sense&React - The context-aware and user-centric information distribution system for manufacturing

Sense&React is a research project, co-funded by the European Union, under the Seven Research Framework Program (FP7) and coordinated by the Laboratory of Manufacturing Systems and Automation (LMS), located at the University of Patras in Greece. The project's main objective was the development of a technology that would be extremely familiar with everything concerning the factory floor. It would also support the people, working in the manufacturing environment, namely the operators and the team leaders in the assembly line, by providing them with the right information, at the right time and location.

The project mainly resulted in the Sense&React solution, ready to meet the expectations of Industry 4.0. The Sense&React solution provides the manufacturing floor with information distribution services and applications that enable up-to-date information provision and immediate reaction to issues and shortcomings. This is achieved through the intelligent combination of different types of data, such as production data, re quantities and type of products, engineering data, namely instructions that guide operators during production, and data from sensors such as weight, Near Field Communication (NFC) and Radio Frequency Identification (RFID). The smart, context-aware Graphical User Interface (GUI) solution provides the Sense&React users with web-apps from various sources on a single screen, so as to be able to focus on the most relevant information about every situation that might arise. This solution optimizes the amount of information received by the user in order to be processed, thus rendering him less stressed, less distracted but more confident with his work task. Sense&React supports mobile users through smart apps that provide the information directly to the mobile device.

Electrolux, a Sense&React partner, is a world-leader supplier of home appliances such as washing machines. In the Electrolux plant in Porcia, Italy, the Sense&React system has been installed directly on the assembly line to support operators and team leaders in their daily activities. The pilot installation and usage of the Sense&React solution has proven its capability to improve the efficiency of the assembly line. The operator can now quickly report several types of problems or requirements to his foreman. With the click of a button, the operator can deliver a message to the correct foreperson, who receives it on his smart phone. At manual and semi-automatic workstations, the proactive delivery of relevant information renders the assembly process easier, especially for unexperienced employees besides reducing the number of assembly errors.

The Sense&React system can be applied to various other industrial cases. It has been successfully demonstrated in the production line of Volvo trucks cylinder heads in Skövde, Sweden as well in ENP, a small-sized shipyard, located in Peniche, Portugal.

The Sense&React system turns companies into "smart factories" and makes them fit for Industry 4.0.

For more information on Sense&React, please visit our website (www.sense-react.eu) or contact Dr. Kosmas Alexopoulos (alexokos@lms.mech.upatras.gr).