

Smart factory: experience from IKEA

Rozle Penca
Smart Factory, Slovenia

How will IKEA Industry become more competitive during next industrial revolution?

Thinking that Industry 4.0 is only about Internet of Things (IoT) might be misleading. IoT, connection of all entities in a value chain, from customer to source of material, is only one of the cornerstones of the next industrial revolution, industry 4.0. It is extremely powerful advancement to connect all entities in a value chain but irrational to see connectivity as the goal. Connectivity is only the enabler in order to optimize decision-making that influences efficiency of the value chain.



Sensor systems which enable connectivity and automated data collection are becoming more mature and therefore easy accessible on the market from-the-shelf. Many companies have already buy-in and are now searching for a value in all the data that is collected and stored. Companies are therefore facing challenges with data overflow.

Main value is created only when data can be understood. To understand the complex interrelations of the big-data means to understand how unique customer order can be optimally fulfilled by considering real time information from the supply chain.

Example of this could be when customer orders an IKEA product online. Consequently, systems will automatically check real-time data from the suppliers. This data may include information about traffic and material on-stock which would impact region selection of the supplier. Some products will be on-stock in the right quantity based on forecasting of customer's habits from online searching. If material is out of stock it would consider status of production at different suppliers. Status of the production includes pending manufacturing orders, forecast of predictive maintenance, quality patterns, technical availability, energy efficiency, human resources etc. Based on the real time and historic data the optimal decision can be taken to meet customer expectations of price, quality and speed.