Nowadays the production industry is described with terms such as big data, smart factory, industry 4.0 and Internet of Things (IoT). These terms are all related to the fourth industrial revolution that is characterized by automation and data exchange in manufacturing technologies. The machines, the products itself and even employees can communicate with each other through sensors, barcodes, GPS signals while creating records of each interaction.

The amount of data to be stored is growing every day, data acquisition is not a problem anymore. The challenge is to make sense of the data, reveal the patterns in it and use them for operational improvements and to support strategic decision making.

Today's manufacturing organizations have to find a way to handle and process this unprecedented amount of data. Not all of the generated data can supply with useful information, but according to estimates, 33% of all data could be useful when analyzed. Yet only 0.5% of all available data is processed by companies. This means that manufacturers are not using the remaining 32.5% of data that could provide them with valuable business insights and revenue growth.