

# Implementing Industry 4.0 on a New Line

If you want to implement industry 4.0 throughout the entire value stream in your manufacturing, some basic requirements must be established:

- Sufficient Internet Connection**  
Is there enough bandwidth available for the exchange of large amounts of data over the internet? This is necessary for evaluating all operational data for planned maintenance that significantly increases the availability of machines.
- Digitally-Controlled Machines**  
Are the machines consistently controlled with a PLC or NC and can the processes be changed flexibly using software settings?
- Machine-to-Machine Communication**  
Are the machines able to exchange data with other machines within the production? Do they have common interfaces and protocols for this purpose?
- Connection to the Company IT**  
Are the machines and systems connected with the company's IT and do IT systems manage the production planning and control?
- Future-Proof Investments**  
Can your machines be connected? Indicators for this are real-time ethernet interfaces and standards across manufacturers for the exchange of data with other machines and the company's IT platform.
- Qualification Programs for Associates**  
Are the associates prepared and qualified for the digitalization? Are you equipped to communicate and support your associates during this change process?
- Consideration of the Entire Value Chain**  
Are the various steps and functions of the entire value creation – from the order to logistics and the coordination of suppliers, from production all the way to distribution and later services – systematically linked to your value stream?