



Digitalization in Manufacturing Industry

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1. Digitalization is changing everything

Digitalization is already changing every aspect of life and existing business model. Disruptive nature of digitalization opens up new business opportunities and ways to satisfy customer requirements more efficiently.

2. Holistic approach that transforms traditional value chains into integrated product and production lifecycle.

2.1 Digital twin

The result of integration and digitalization of complete value chain from design to service makes perfect digital copy.

This enables manufacturing company to test, simulate and optimize in a totally virtual environment for better quality, faster time to market and high efficiency in more flexible production line.

2.1.1 Three forms of digital twin

Comprehensive concept of the digital twin consists of three forms, digital twin of product and digital twin of production and digital twin of performance for both product and production line. The ultimate goal of the digital twin is complete closed loop connection for continuous development and optimization of product, production.

Through this connection we get actionable insights from physical world to make right decisions throughout entire lifecycle of products and operation of production.

2.2 Virtual Commissioning

Virtual commissioning makes it possible for machine commissioning in the early development phase. Error scenarios can be proved with no risk even before real machine exists.

Problems and errors detected in virtual environment don't pay repair cost, expensive service charge and can be eliminated faster and efficiently.

2.3 Linking to the IIOT

Cloud based open IOT operating system like MindSphere creates a link to the internet of things. It means manufacturers can analyze their asset in actual use and feedback insights for continuous optimization. Especially machine builders can analyze their machine performance in real time remotely for predictive maintenance and ongoing development of new machine concept.

3. Benefit from the digital transformation



Take the first step to digitalization right now. Create competitive edge with digitalization. By unlocking the full potential of digitalization, finally manufacturers can meet all the market demands and more easily generate new business models.