

LEAN INDUSTRY 4.0 COURSE DETAILS

In recent years, the catchphrase 'Industry 4.0' has developed into a commonly accepted description of the next wave of improvement opportunities for businesses that want to stay 'ahead of the game' in terms of outperforming productivity. The digital levers of Industry 4.0 are vast, ranging from digital performance management and remote monitoring to smart energy consumption and predictive maintenance – all of which create value by generating improvements in quality, asset utilization, time to market, and management of resources and labor.

Technology drivers for the factory of the future

Besides all technological specifications and new trending buzzwords, we see four major drivers to lead factories into the age of Industry 4.0, that are already applied and proven by leading companies. They can be introduced step-by-step, depending on the current technologies and specific challenges of the respective production environment:

- Data-Analytics – frequently gathering and consolidating data and visualizing it, can significantly accelerate decision making. In combination with smart sensor technology, real-time data can scale the possibilities for improvement:
 - instead of using historical data to derive measures for preventive maintenance, use data models and hypothesis to introduce predictive maintenance for critical machine parts
 - move from frequent manual quality checks to real-time data for condition monitoring and SPC (Statistical-Process-Control)
- Cyber Physical Systems – combining modern information technology with classical industrial processes is the first step to introduce autonomous controlled process steps and real-time feedback loops. The next step will be the networking of machines, systems and devices via the Internet ('Industrial Internet of Things') and allow decentralized, situationally dependent control strategies. Parts will be able to find their own way through the production and react flexibly to disturbances or changes
- Human Machine Interfaces – The human-machine interface (HMI) determines the way humans and machines communicate with each other and the user operates a system. This becomes increasingly important with more complex and interdependent systems. In the future applications will, in addition to manual interaction, also be controlled using gestures or speech, and decision making, process control and maintenance will be supported with real time data and elements of augmented reality
- Additive Manufacturing Technologies – for example 3D-Printing or Laser-Sintering can enable manufacturers to produce complex, unique parts on demand and so reduce lead times and the complexity of their supply chain, while increasing the variants of their products

WHO SHOULD ATTEND?

Executives and managers in production companies; all individuals who want to gain an overview of Industry 4.0 and its opportunities.

 *Duration: 1 day*

 *Price: \$ 699*

 *Max Participants: 12*

WHY INDUSTRY 4.0 STARTS WITH LEAN MANAGEMENT

Proven principles of Lean thinking are fundamental in effectively implementing Industry 4.0. For example, successful digitization requires transformational thinking throughout the organization. This means considering the company as a whole by assessing entire value chains, removing waste, launching and learning from flagship pilot projects, and supporting continuous innovation through the creation of new behaviors. Embedding 'traditional' Lean wastes in smart, digitized processes will fail to leverage the full potential of the technologies, since root causes for existing problems remain undetected and therefore unsolved. Another reason is, that the philosophy of 'Lean Thinking' and 'Kaizen' strongly believes in the employees being the source of knowledge and innovation. Most technological transformation fail, because the approach is to machine centric and ignores to establish a digital culture and train the skills of employees accordingly.

WHAT WILL THIS COURSE ACHIEVE?

In our 'Lean Industry 4.0' course you will run an interactive simulation of a real time production process that will illustrate how Lean management principles can lay the foundation for successful adoption of Industry 4.0. You will get to know the drivers of Industry 4.0 and how they relate to digitization

- The technological and social drivers for digitization
- Elements and technologies of Industry 4.0
- Guidelines for the production of the future
- Designing and implementing 'Lean Information Infrastructures'
- The human centric approach to Industry 4.0