SANDHOLM EXCELLENCE CENTER

Training and consulting in quality management, excellence and continual improvements since 1971.

Lean and process development

A training course that gives knowledge about how to develop effective processes that meet customer needs and deliver value

There is a huge improvement potential in most processes. A very small percentage of the resources consumed is directly used to create customer value. Process kind of waste occurs all over an organization. By using the principles and tools of Lean, a breakthrough in both effectiveness and efficiency can be achieved. In this training course, participants learn how to successfully run improvement on an organization's process level and develop processes with Lean.

Purpose
To provide the knowledge needed to transform a process into a more effective and efficient future Lean-based flow.

Aimed at
Persons that want to learn how to succeed with Lean and/or are to lead Lean-based improvement activities.

General information
The lectures will be led by consultants from Sandholm Associates. The course is given in English.

The participants perform Lean projects between the two modules in their organization to learn more and build experiences.

Documentation
Participants will receive relevant course material, which will serve as a useful reference after the course.

Length
6 days (4 + 2 days).

Place
The course is given at Sandholm Excellence Center in Ponte de Lima in northern Portugal or company-internal at your location.

The course is also given internationally online on Zoom. When given online, the training days are not divided into modules.

CONTENT ➔

Main parts of the course *Lean and process development*:

- Introduction to Lean and process development
- Understanding Lean by doing a Lean simulation
- Analyzing the actual situation in a process through gemba walks, spaghetti diagrams, flow charts, matrix diagrams and value stream mapping
- Elimination of waste and improvement of the ability to deliver customer value
- Balancing a process, creating a continuous flow and implementing takt time
- Principles of pull system and how lot size affects the flow
- Kanban
- Reduction of change over time with the SMED-method
- Takt time
- Business process re-engineering (BPR)
- IT and digitalization as a tool in work to develop processes
- Standardized work, Five S and Poka Yoke
- Total Productive Maintenance (TPM)
- Andon system
- Kaizen activities to maintain a Lean based production system

Course schedule – Lean and process development

Module 1 (4 days) – Process improvements and Lean principles

In the first module, we initially discuss how to integrate Six Sigma and Lean in an effective improvement program. This course focuses on running improvements on the process level and learning how to develop an effective and efficient flow that delivers value to the customers of the process. To understand Lean, the participants do a Lean simulation where many of the principles of Lean are tested.

Then we introduce the tools needed to analyze and understand the actual situation in a process. Focus is on tools such as gemba walks, spaghetti diagrams, flow charts, matrix diagrams and value stream mapping. We also discuss how to use technical devices to record information and analyze processes. Participants learn how to measure and analyze time in a process, identify bottlenecks, and use the theory of constraints.

In this first module, we also focus on developing a new future flow in a process by improving its ability to deliver customer value and eliminate waste. Participants learn to create a continuous and balanced process flow and implement takt time. We also discuss the principles of a pull system and how lot size affects the flow. Focus is then on reducing change over time and the SMED method is introduced.

The participants also learn to develop a systematic process approach by introducing standardized work and designing work effectively. The Jidoka concept is introduced and we discuss how error-proofing by Poka Yoke can be introduced to avoid failures. Techniques for establishing good housekeeping with Five S are introduced, and the use of Total Productive Maintenance (TPM) to prevent stops is discussed. We also learn how to design an early warning Andon system that helps to maintain an undisturbed process flow. Finally, participants study how to use Kaizen activities to maintain and further develop a Lean-based production system.

Module 2 (2 days) – Development of an advanced Lean flow

We continue learning to create a highly effective Lean-based process flow in the second module. We now focus on more advanced Lean tools that help us to level and balance a Just-in-time system. Techniques for implementing Kanban and takt time are then discussed. We also introduce principles from Business Process Reengineering (BPR) and discuss how digitalization and new technology can be used to develop future processes.

In this module, we also follow up on the results and lessons learned from the projects the participants have carried out in their organizations between the two modules.