



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 process level in an organization and how to 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.

Between the two modules the participants perform Lean projects in their own organization to learn more and start to build experiences.

Documentation

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

Length

6 days (4 + 2 days).

Place

The course is given in a training building in the area of Ponte de Lima in northern Portugal or company internal at your site.

CONTENT



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

- Introduction to Lean and process development
- Understanding Lean by doing a Lean simulation
- Analysing 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 the work to develop processes
- Standardized work, Five S and Poka Yoke
- Total Productive Maintenance (TPM)
- Andon system
- Kaizen activities to maintenance 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. Focus in this course is on running improvements on 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 analyse 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 analyse processes. Participants learn how to measure and analyse time in a process and how to identify bottle necks and use the theory of constraints.

In this first module we also focus on how to develop a new future flow in a process by improving its ability to deliver customer value and eliminate waste. Participants learn how 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 affect the flow. Focus is then on reduction of change over time and the SMED-method is introduced.

The participants also learn how to develop a systematic process approach by introducing standardized work and designing work in an effective way. The Jidoka concept is introduced and we discuss how error proofing by Poka Yoke can be introduced in a process to avoid failures. Techniques for establishing good housekeeping with Five S are introduced and the use of Total Productive Maintenance (TPM) to avoid 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 maintenance and further develop a Lean based production system.

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

In the second module we continue learning how to create a highly effective Lean based process flow. 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 is then discussed. We also introduce principles from Business Process Reengineering (BPR) and discuss how digitalization and the use of new technology can be used to develop future processes.

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