



Continual improvements and problem solving

A training course about systematic improvement methodology and basic problem-solving tools

This training course introduces the methods and tools that are the most important ones when solving problems and working with continuous improvements. The course is based on the Six Sigma DMAIC model and the participants learn how to solve problems and implement the solutions needed to achieve good results. We focus on how to identify, define, understand and solve problems and how to implement, control and follow up solutions in both manufacturing and service organizations. This course gives a Six Sigma Yellow Belt level. What the participants learn is also suitable for basic problem solving in other improvement concepts such as Lean, TQM and Kaizen.

Problem solving methodology and use of effective tools are of great importance to success when working with continuous improvements. Important steps in this work are: collect and analyze facts about the organization to find areas for improvement, select and prioritize improvement projects, define and limit problems, identify root causes, find and implement solutions, follow-up improvements etc. The Six Sigma DMAIC is the most common model used in this work. It is also critical to have a solid knowledge base of problem-solving methods and QC-tools.

Purpose

To provide the knowledge and ability to apply effective methods and basic tools used in continuous improvements and problem solving.

The course offers a Yellow Belt diploma in Six Sigma.

Aimed at

Persons that take part in, or will take part in, improvement teams.

General information

The lectures will be led by consultants from Sandholm Associates.

Documentation

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

Length

4 days.

Place

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

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Main parts of the training course *Continual improvements and problem solving*:

- Quality, customer focus and business development
- Identifying improvement opportunities and selecting projects
- Organization, roles and responsibilities for improvement work
- Methods for problem solving - DMAIC
- Basic project management for improvement projects
- Define a problem and set a scope
- Identifying business cases
- Customer and process perspective on improvements
- Data collection and fact-based analysis
- Root-cause analysis
- Identification and implementation of solutions
- Controlling and following up improvements
- Reporting improvements



Course schedule – Continual improvements and problem solving

We start with an introduction to Six Sigma and Lean where we focus on how a successful improvement program should be run. We learn about organization, roles, and responsibilities of improvement work. Methodology and strategies for identifying and prioritizing good improvement projects are discussed. During this module we focus on Six Sigma's problem-solving model DMAIC. We start by learning how to define, scope, and limit a problem, how to develop a business case, how to identify customer needs, and how to study problem-related processes with SIPOC (Suppliers, Inputs, Outputs, Customers). We also discuss basic project management, with focus on leading and planning improvement projects.

We proceed to the Measure phase of the DMAIC-model and show how to identify critical measurable variables, design a measuring system, plan the measuring work, and perform measuring. Then we learn problem solving methodology and cover the Analyse phase. We focus on basic problem solving and root cause analysis. In this work we introduce many of the basic problem-solving tools. We also discuss other problem-solving strategies such as innovative problem solving and techniques to solve human controllable failures.

In this module we also focus on the Improvement phase of the DMAIC-model and learn how to implement solutions and take action. Finally, the participants learn the Control phase and we discuss how to ensure and maintain implemented solutions and how to follow up, report and communicate the final results of the improvement project. As a part of this module, participants also identify and defining their proposed training projects.