



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 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 first learn how to identify, define, understand, and solve problems in both manufacturing and service organizations. Then we continue and focus on how to develop, implement, control, and follow up solutions. This course gives a Six Sigma Yellow Belt diploma. 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 effective tools are critical 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. Having a solid knowledge base of problem-solving methods and QC tools is critical.

Purpose

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

The course offers a Yellow Belt diploma in Six Sigma.

Aimed at

Persons that participate 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

3 days.

Place

The course is given internationally online via Zoom. We can also provide the course in-person at Sandholm Excellence Center in Ponte de Lima in northern Portugal or company internal at your location.

CONTENT →

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 on improvements
- Reporting improvements



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Course schedule – Continual improvements and problem-solving

We start with an introduction to Six Sigma and Lean, focusing 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, develop a business case, identify customer needs, and study problem-related processes with SIPOC (Suppliers, Inputs, Outputs, Customers). We also discuss essential project management, focusing 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 the 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. We discuss how to ensure and maintain implemented solutions and follow up, report, and communicate the final results of the improvement project. As a part of this module, participants also identify and define their proposed training projects.