

## Lean Six Sigma Green Belt (according ASQ)

In the training the basics of the Lean Six Sigma system, the interpersonal processes in project management as well as the necessary methodological knowledge for the project phases Define, Measure, Analyze, Improve & Control are taught. Participants bring their own improvement topic to the training and develop the project assignment, project plan, fact collection and process performance overview.

In the certificate course, statistical knowledge is taught and the participants expand their competencies for the project phases of measuring and analyzing a Lean Six Sigma Green Belt project. In-depth Lean analyses and case studies take up a lot of space.

The training focuses on tools and methods for the improvement and assurance phases. In addition, from the second module onwards, the project documents produced by the participants in the meantime are discussed in a project review.

### Target Group

Managers, process managers and engineers, administrators and specialists for quality, process optimization and improvement in the company.

### Requirements

- ! You'll need a laptop with an actual version of MINITAB
- ! You may download a 30-days testversion of MINITAB during the course

### Your Benefits

The participants know the overall system of a Lean Six Sigma organization and understand their role in this complex network. They use alternative Six Sigma methods or Lean principles to realize their improvement goals. They master the basic rules of project management and can structure their approach into the DMAIC phases according to Six Sigma.

The first module teaches the basics of the Lean Six Sigma system, the interpersonal processes in project management, and the necessary methodological knowledge for the Define project phase. The participants bring their own improvement topic to the training and work on the project assignment, the project plan, the collection of facts and an overview of the process performance. In the follow-up module, statistical knowledge is taught and participants expand their competencies for the Measuring and Analyzing project phases of a Lean Six Sigma Green Belt project. In-depth Lean analyses and case studies take up a lot of space. The last module focuses on the tools and methods of the improvement and assurance phase. In addition, from the second training module onwards, the project documents produced by the participants in the meantime are discussed in a project review.

### Methods

The training concept is modular. All content is explained using practical examples and consolidated through hands-on exercises. Part of the Green Belt training is also the application of statistical software with Six Sigma tools. We use the MINITAB® software package for this purpose. The prospective Six Sigma Green Belts are assigned a suitable Lean Six Sigma project by their company before the start of the training. The acquired knowledge is applied in their own project during the time between the training modules.

Selected training methods: trainer input, group exercises and case studies, peer consulting, feedback.

### Projectcoaching

In each training module, your project work is discussed and improved with the trainees. Between the modules and also beyond the duration of the training, our trainers are available to you by e-mail for questions and

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problems concerning the implementation and documentation of your project. This gives you the opportunity to have your documentation checked regularly during the course of the project for completeness in the individual DMAIC phases and to seek advice in the event of problems, e.g. in the use of the tools. This prevents errors in the project documentation from becoming apparent only at the time of submission, which would result in parts of the project having to be rolled up and documented again.

## Key Features

### Basics

- | Lean Six Sigma Guiding Principle and History
- | What is Six Sigma? What is Lean?
- | Lean systems and methods
- | Six Sigma improvement methods
- | Lean Six Sigma experiences and successes in other companies
- | Six Sigma organization and performers in the process
- | Identifying improvement potential
- | The DMAIC project phases

### Project Management

- | Understanding the role of a Green Belt
- | Stakeholder Management
- | Change management - dealing with resistance
- | Effective team leadership

### Define-Phase: Project Definition and Project Assignment

- | The voice of the customer
- | Translating customer needs into project goals
- | Narrowing the scope of the project - SIPOC
- | Creating the project brief
- | Evaluation and follow-up of the definition phase

### Statistics

- | Introduction to statistics
- | Introduction to MINITAB®

### Measure-Phase: Understanding and Evaluating Processes

- | Detailed description of the process in the critical areas
- | Adding Lean related metrics to the process flow
- | Determine current process performance
- | Determine the process capability related to the performance target

### Analysis Phase: Analyze Process and Determine Parameters

- | Analyze the process for Lean potential
  - | Capture the process with value added analysis
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- | Analyze potential waste
- | Cause and effect to identified problems (Ishikawa diagram, 5-W method)
- | Correlation analysis, cause and effect relationships in data
- | Analysis of variance with the multi-vari diagram

(Statistical Design of Experiments (DoE) with practical exercise is not part of this training, but can be added as a supplementary module).

### **Improve Phase: Improve Processes**

- | Finding creative solutions with brainstorming
- | Developing the new ideal process flow
- | Selection criteria for improvements
- | Risk analysis of improvements - FMEA
- | Implementation plans
- | Piloting the change

### **Control Phase: Sustain Improvements**

- | Documenting the change
- | Active change management
- | Establishing process control
- | Lessons learned analysis

## **Final day and certification**

Participants receive a Lean Six Sigma Green Belt certificate (ASQ Standard) if they pass the written exam and successfully complete their own improvement project within 18 months after the end of the training. The written exam takes place on the last day of training. A project was successful if it clearly reflects the application of Six Sigma methods and if the improvements were successfully, i.e. profitably, implemented in the company. After passing the exam, you will receive a qualification certificate as long as you have not submitted any project documentation. If you submit the documented project work that accompanies the training, we will issue you the Lean Six Sigma Green Belt certificate.

The training process and content of our qualification is modeled after the American Society for Quality (ASQ). The qualification exceeds the requirements of the international Six Sigma standard "Quantitative Methods in Process Improvement - Six Sigma":

Part 1: DMAIC Methodology - ISO 13053-1:2011

Part 2: Tools and techniques - ISO 13053-2:2011

## **Duration**

9 days

1. day: 10:00 - 18:00

following: 09:00 - 17:00

9. day (Exam): 09:00 - 13:00

## **Certificate**

Certification by GRUNDIG AKADEMIE

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