Seminar "Six Sigma BLACK BELT Training" – with certification

You will be introduced to this worldwide recognized method for the continuous improvement of existing processes and products by experienced Six Sigma Master Black Belts. You may choose between English or German training material. The seminar will have a practical orientation, will be conducted in small groups and the participants will be coached to achieve certification.

Target Audience

Persons keen to improve existing processes in a structured way, especially:

- Managers, engineers and technicians working in Production, Production Planning, Research & Development (R&D), and Quality Management.
- Process engineers, process planner, quality engineers and quality managers.
- (Lean) Six Sigma Green Belts.

Aimed at participants from all industry sectors (e.g. renewable energy, aerospace, consumer products, electronics, medical devices etc.) of small & medium-sized businesses and global enterprises producing products.

Subject

Six Sigma is a continuous improvement method, which drastically reduces variation and defects in processes, products and services, directly generates financial savings and therefore increases the operating efficiency. Six Sigma focuses on the systematic application of statistical methods and quality tools and ensures that decisions are made on the basis of statistically sound datasets instead of assumptions and guesses.

Six Sigma is a structured and disciplined approach to solve critical problems from an economic point of view, which cannot be solved with other methods. It provides relatively fast tangible results out of short, dynamic projects with a high success factor. All are linked to the business strategy and related to customer needs. Six Sigma projects have clearly defined and financially valued improvement goals and focus on the quality and efficiency of corporate processes.

The application of this method in particular yields an increase of customer satisfaction, reduction of warranty and courtesy costs, increase of company internal efficiency, reduction of process and/or product costs and therefore direct, tangible, financial savings.

Read more about this method.

Black Belt

Black Belts are trained method experts in charge of improvement projects in product or process development. Here, the focus is on systematic problem solving with the help of statistical analysis tools. Black Belts are usually supported by a project team, with members from product or process development areas. The team might also include Six Sigma Green Belts supporting Six Sigma Black Belts with smaller Green Belt projects.

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Objectives & Benefits

After a successful participation in the seminar the participants will have acquired the following skills:

- Systematically eliminate defects and reduce variation in existing processes,
- Implement the methodological approach and select the appropriate tools,
- Apply tools to collect and analyze data and to analyze and improve processes,
- Thorough investigation of problem root causes and preparation of data-based decisions,
- Successful application of knowledge in Six Sigma projects with considerable financial savings.

Contents

Six Sigma projects are executed using the DMAIC (Define, Measure, Analyze, Improve, Control) approach. As part of this approach, the following quality tools and statistical techniques are conveyed in the seminar:

- SIPOC,
- Voice of the Customer,
- Thought Map,
- Process Map,
- Cause and Effect Matrix (C&E),
- Cause and Effect Diagram (C&E),
- Process FMEA,
- Basic Statistics,
- Introduction to Control Charts,
- Measurement System Analysis (Var. & Attr. Data),
- Data Collection Plan,
- Process Capability (Var. & Attr. Data),
- Data Transformations (Box-Cox),
- Graphical Analysis,
- Confidence Intervals,
- Hypothesis Tests (t, F, Chi², P),
- Power & Sample Size,
- Analysis of Variance (1-way, 2-way, multiple ANoVA),
- Non-Parametric Hypothesis Tests,
- Contingency Tables,
- Principal Component Analysis,
- Factor Analysis,
- Discriminant Analysis,
- Correlation & Single Regression,
- Multiple Regression,
- Logistic Regression,
- Multi-Vary Studies,
- Design of Experiments (Full Factorial),
- Design of Experiments (Fract. Factorial),
- Blocking, Centerpoints, Randomization,
- Plackett-Burman Designs,
- Mixed Level Designs,
- Response Surface Methods (EVOP, PLEX),
- Response Surface Designs,
- Multiple Response Optimization,
- Statistical Tolerancing,
- Planning of Improvement Actions,
- Validation of Improvement Actions,
- Control Plans,
- Statistical Process Control (SPC),
- Control Charts (I-MR, Xbar-R/s),
- Introduction to Lean, TOC and DfSS.

Execution

In this intensive seminar the participants will be introduced to the Six Sigma method and learn the tools necessary for application. The method will be practiced in groups by applying typical tools to a case study that runs across the training. Each participant will apply the acquired skills to a Six Sigma Project parallel to the seminar. The aim is to save at least € 50.000, - annually or to achieve a ROI (Return on Investment) of 4 per project. From the second week of the seminar onward each participant will present the project progress in form of a project review.

The selection of an appropriate project can be supported by an experience trainer as Master Black Belt. As we consider it absolutely necessary to apply the acquired skills to a project as soon as possible, coaching is an important element for a successful completion of a Six Sigma project. We recognize this need of professional support after the seminar and offer individual coaching via email and phone to every participant.

Certification

The participant will receive a confirmation of attendance after completing the seminar. The exam and the presentation of the completed project will be done several months after the end of session 4 on a separate date, which we will set during the seminar. The exam will be a written multiple choice test and takes four hours for all participants.

After passing the Six Sigma Black Belt exam and the successful completion of the project the participant will receive the "Six Sigma BLACK BELT CERTIFICATE".

Innovensys has developed a demanding standard for the certification of the "Six Sigma Black Belt", which is corresponding to the international standard for "Certified Six Sigma Black Belt" (CSSGB) of the American Society for Quality (ASQ) in content, scope and duration. Furthermore, it fulfills the minimal standards for the Six Sigma Black Belt Certification of the European Six Sigma Club (ESSC).

Prerequisites

Basic mathematical knowledge.

Dates (Seminar No: SSBB20Z – 1/2011):

- Session 1: 07/11 – 11/11/2011
- Session 2: 12/12 – 16/12/2011
- Session 3: 16/01 – 20/01/2012
- Session 4: 13/02 - 17/02/2012

Training Duration

20 days in four sessions:

- Monday 9 am – 5 pm
- Tuesday- Thursday 8 am - 5 pm
- Friday 8 am – 12 am

1 day for exam and certification

Training Location

Cologne/Dusseldorf area in a renowned conference hotel with excellent service.
Individual locations or division of the training into shorter sessions may be requested for in-house trainings.

Number of Participants

Training will be conducted in small groups of max 8 participants to increase knowledge transfer and ensure individual support.

Instructor

Mr. Dipl. Ing. Bert van de Lindeloof MSc.
Six Sigma & DfSS Master Black Belt

Attendance Fee

9.500, - € per participant (plus VAT) including exam fee. You will receive an invoice of Innovensys with a confirmation of course registration. Payment of the fee prior to the start of the training is obligatory.

If two or more participants of the same organization visit the seminar, we allow a 10 % discount from the second participant onward.

Scope of Supply and Services

- Extensive training material in paper form,
- Numerous excel tools (data files) for the exercises,
- Numerous Minitab® data files for the exercises,
- Project coaching up to 2 hours, allowable 2 months after participation in the seminar, starting with the participation of the first session of the seminar,
- Confirmation of attendance,
- Exam,
- Certification after passé exam and a successfully conducted project,
- Daily refreshments in breaks and lunch at full seminar days.

Software Equipment

Each participant needs a laptop with the following software:

- Microsoft® Excel version 2003 onward,
- Minitab® Release 15 onward (You do not have Minitab? Contact us!)

Are you interested in an individual in-house training, customized to your needs?
We will be pleased to submit you an offer. Please contact us!