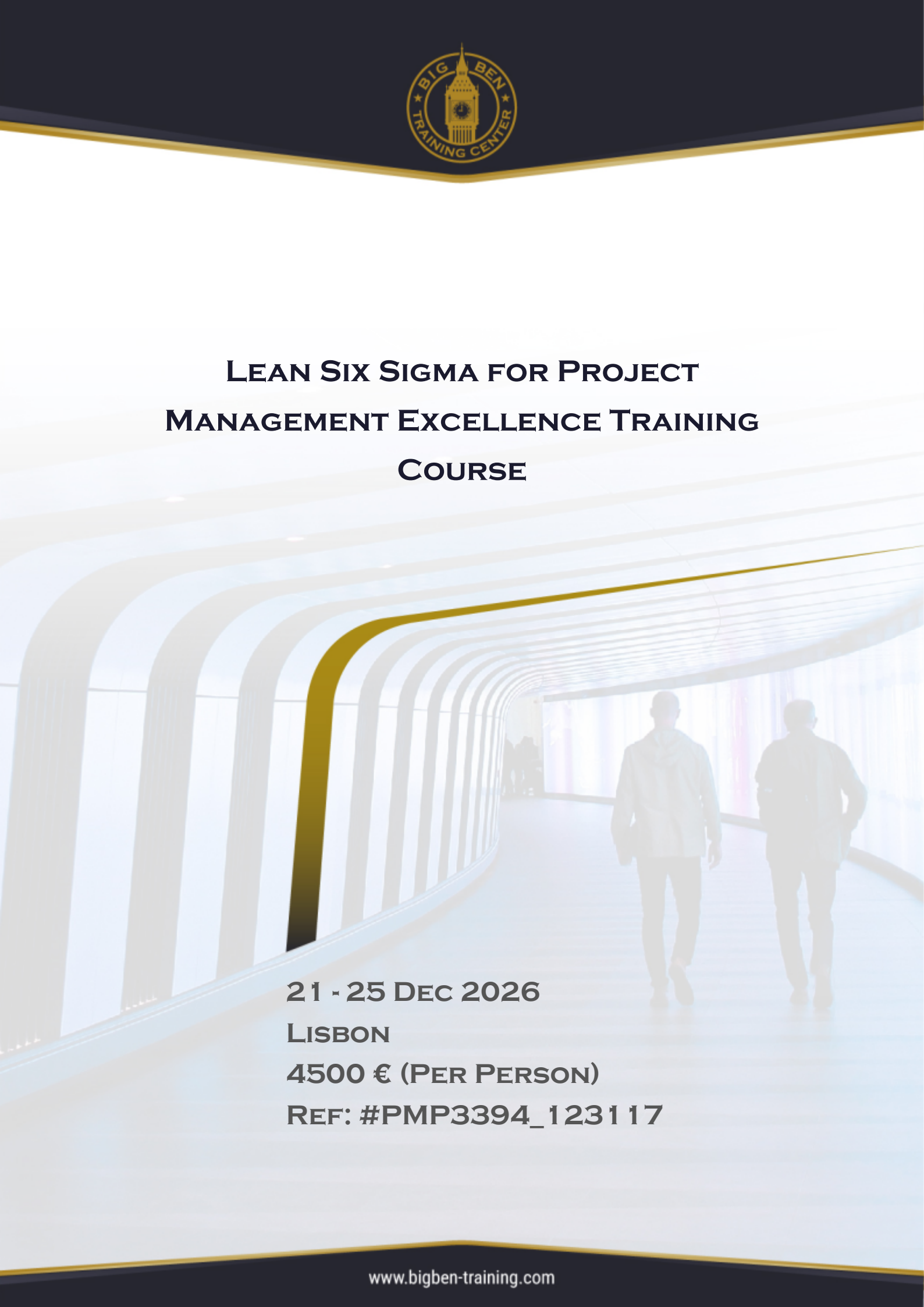
Lean Six Sigma for Project Management Excellence Training Course



21 - 25 Dec 2026

Lisbon

4500 € (Per Person)

Ref: #PMP3394_123117

Course Introduction / Overview:

This course provides a comprehensive framework for integrating the powerful methodologies of Lean, Six Sigma, and traditional project management. In today's competitive landscape, organizations need more than just efficient project delivery; they require processes that are both fast and of high quality. This training program bridges that gap by combining Lean's focus on eliminating waste and increasing speed with Six Sigma's data-driven approach to reducing defects and variation. As pioneering author Dr. Mikel Harry articulated, the core of Six Sigma is about making decisions based on data, not assumptions. Participants will learn to apply the structured DMAIC (Define, Measure, Analyze, Improve, Control) framework within a project management context, ensuring that improvement initiatives are managed effectively from start to finish. This holistic approach, detailed in works like "The Lean Six Sigma Pocket Tool book", transforms project managers into strategic leaders of operational excellence. BIG BEN Training Center has designed this course to equip professionals with the practical skills to lead complex process improvement projects, drive significant business results, and foster a culture of continuous improvement within their organizations.

Target Audience / This training course is suitable for:

- Project Managers and Project Leaders.
- Process Improvement Specialists and Consultants.
- Operations Managers and Supervisors.
- Quality Assurance and Quality Control Professionals.
- Business Analysts and System Analysts.
- Team Leaders and Department Heads.
- Engineers and Technical Professionals seeking to lead improvement projects.
- Anyone aspiring to a role in operational excellence or project management.

Target Sectors and Industries:

- Manufacturing and Industrial Production.
- Healthcare and Pharmaceutical Services.
- Banking, Finance, and Insurance.
- Information Technology and Telecommunications.
- Logistics, Supply Chain, and Transportation.
- Government Agencies and Public Sector Organizations.
- Construction and Engineering.
- Retail and Customer Service.

Target Organizations Departments:

- Project Management Office (PMO).
- Operations and Production.
- Quality Assurance and Control.
- Engineering and Product Development.
- Information Technology (IT).
- Customer Service and Support.
- Finance and Administration.
- Human Resources and Training.

Course Offerings:

By the end of this course, the participants will have able to:

- Integrate Lean and Six Sigma principles into the standard project management lifecycle.
- Effectively lead process improvement projects using the DMAIC methodology.
- Develop a comprehensive project charter and define clear project scope and goals.
- Utilize value stream mapping to identify and eliminate non-value-added activities.
- Apply statistical tools to measure process performance and capability.
- Conduct in-depth root cause analysis to identify the source of problems.
- Generate, evaluate, and implement effective improvement solutions.
- Create robust control plans to sustain project gains and prevent regression.
- Manage stakeholders and communicate project progress effectively.
- Foster a culture of data-driven decision-making and continuous improvement.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be highly interactive, engaging, and focused on practical application. We believe that adult learning is most effective when participants are actively involved in the process. This course moves beyond theoretical lectures to immerse attendees in a dynamic learning environment. A significant portion of the training is dedicated to hands-on exercises, real-world case studies, and group-based problem-solving activities. Participants will work in teams to apply the DMAIC framework to simulated business challenges, allowing them to practice using tools like fishbone diagrams, process maps, and control charts in a supportive setting. Our expert instructors facilitate discussions, provide personalized feedback, and guide participants in connecting the concepts to their own professional contexts. The methodology emphasizes a cycle of learning, application, and reflection, ensuring that attendees not only understand the principles of Lean Six Sigma project management but also leave with the confidence and skills to implement them immediately in their workplace, driving tangible improvements and measurable results.

Course Agenda (Course Units):

Unit One: Foundations of Integrated Process Improvement

- Introduction to Lean, Six Sigma, and Project Management.
- The history and evolution of continuous improvement methodologies.
- Understanding the synergy between Lean speed and Six Sigma quality.
- The 8 Wastes of Lean and the concept of variation.
- Roles and responsibilities within a Lean Six Sigma project team.
- The DMAIC and DMADV methodologies explained.
- Selecting and prioritizing high-impact improvement projects.

Unit Two: The Define and Measure Phases

- Developing a robust Project Charter.
- Defining the problem statement, goals, and project scope.
- Identifying and analyzing project stakeholders.
- Understanding the Voice of the Customer (VOC) and Critical to Quality (CTQ) requirements.
- Introduction to Value Stream Mapping (VSM).
- Developing a data collection plan.
- Basics of statistical sampling and measurement systems analysis (MSA).

Unit Three: The Analyze Phase

- Detailed process mapping and analysis techniques.
- Identifying potential root causes using brainstorming and affinity diagrams.
- Conducting root cause analysis with Fishbone Diagrams and the 5 Whys.
- Introduction to basic statistical analysis for problem-solving.
- Graphical analysis tools such as histograms, Pareto charts, and scatter plots.
- Understanding process capability (Cp, Cpk).
- Formulating and testing hypotheses to validate root causes.

Unit Four: The Improve and Control Phases

- Generating creative solutions for identified root causes.
- Techniques for prioritizing and selecting the best solutions.
- Introduction to Failure Modes and Effects Analysis (FMEA) for risk mitigation.
- Planning and executing pilot tests for proposed solutions.
- Developing a comprehensive implementation plan.
- Introduction to Statistical Process Control (SPC) and control charts.
- Creating effective control plans to sustain the gains.

Unit Five: Sustaining Excellence and Project Closure

- The principles of change management for successful implementation.
- Communicating project results to stakeholders and leadership.
- Standardizing new processes and procedures.
- Documenting lessons learned for future projects.
- Formal project closure and handover processes.
- Linking Lean Six Sigma projects to organizational strategy.
- Final course review and individual action planning.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

How might the principles of Lean Six Sigma be adapted to manage projects in highly creative or unpredictable environments, such as R&D or digital innovation, where processes are not always standardized?

What unique qualities does this course offer compared to other courses?

This course distinguishes itself by offering a truly integrated perspective, weaving together the distinct disciplines of Lean, Six Sigma, and project management into a single, cohesive strategy. Unlike programs that teach these subjects in isolation, our curriculum focuses on the powerful synergy created when they are combined. Participants learn not just what the tools are, but how to strategically deploy them within a structured project management framework to solve complex business problems. The emphasis is less on rote memorization of statistical formulas and more on developing critical thinking and data-driven leadership skills. We prioritize practical application through realistic case studies and hands-on simulations that mirror the challenges professionals face in their roles. The course is designed to cultivate a holistic understanding of operational excellence, empowering participants to see the bigger picture, manage change effectively, and lead initiatives that deliver sustainable, long-term value. The goal is to transform attendees from project executors into strategic agents of improvement who can drive meaningful change across their organizations.