TRAINING PROGRAM

Black Belt - Lean

v. 05/2025

Training Objectives

- ★ Define and deploy a Lean approach consistent with the company's strategy
- ★ Identify, frame and manage complex or multi-stakeholder projects
- ★ Use advanced Lean Six Sigma tools to address root causes and measure impacts
- ★ Manage and coach Green Belts, structure Lean roadmaps at site or department level

Teaching methods: 100% online training. One virtual classroom/week, virtual business simulation, mini-games, videos, quizzes and case studies

Prerequisites: 2 years of professional experience. Internet access and compatible browser (Chrome or Firefox)

Evaluation & success: Final online MCQ with CESI Certification, technical file, summary and additional interview (optional)
see page 6

Accessibility: the training is accessible to people with disabilities. Contact us so that we can adapt your training.

3 OFFERS

to match your level

Complete training

3,490€

VAT excl

Included :
Yellow Belt, Green Belt,
Black Belt 7-Shapes School

Training dates
on the next page

50 hours on **12 weeks**

For certified Yellow Belt

2,500€

VAT excl

Included :
Green Belt, Black Belt
7-Shapes School

Training dates
on the next page

36 hours *on* ***8 weeks***

For certified Green Belt

2,000€

VAT excl

Included :
Black Belt
7-Shapes School

Training dates
on the next page

19 hours *on* ***4 weeks***

TEST OUR DEMO

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TRAINING **CONTENT**

Complete training

Week 1, Week 2, Week 3, Week 4
Week 5, Week 6, Week 7, Week 8
Week 9, Week 10, Week 11, Week 12

For certified Yellow Belt

Week 5, Week 6, Week 7, Week 8
Week 9, Week 10, Week 11, Week 12

For certified Green Belt

Week 9, Week 10, Week 11, Week 12

Training **DATES**
- contact us -

In-company group
Minimum 8 people
Customized dates

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Week 1 : Define your Lean project **(~4 hours)**

- ★ **Welcome virtual class: introduction to Lean**
- ★ **Positioning Quiz**
- The philosophy of Lean Management
- Manage your Lean project with the DMAIC method
- Value Added Value and Non Value Added
- Simple diagnostic tools: The 7 wastes, the Gemba Walk, the indicators, the dashboard
- Implementing the 5S
- Project management: SMART goals, project scoping, building the right team, managing risks
- ★ **Quiz : The basics of Lean and the definition of a project**
- ★ **Virtual class: framing your project and diagnosis**

Week 2 : Measure and analyze the current performance **(~4 hours)**

- Make the right diagnosis
- Case study
- Advanced diagnostic tools: VSM, Spaghetti Flow, Relocation, Logistician assignment
- OEE & GEE
- Others diagnostic tools : 4W1H, Ishikawa & 5 WHYs
- Kanban
- Poka Yoke
- ★ **Quiz : Measure and analyze flow performance**
- ★ **Virtual class: OEE, quality tools, Kanban...**

Week 3 : innovating to achieve objectives **(~4 hours)**

- Little's Law and the Theory of Constraints
- Leading a Kaizen project and example
- Batch size and Work-In-Process (WIP)
- Application of all the notions from the beginning of the training
- Example of a performance project
- ★ **Quiz : Initiate improvements projects**
- ★ **Virtual class : examples of Kaizen projects**

Week 4 : Control that the performance is sustainable **(~4 hours)**

- Involve your staff
- Creativity and constraints
- Basics of visual management
- Difficult challenges
- ★ **Quiz : Controle and sustain performance**
- ★ **Yellow Belt preparation quiz**
- ★ **Virtual class: Short-Interval Management and Yellow Belt training assessment**

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Week 5 : Take into account the customer's request **(~3 hours)**

- Queueing Management Tool
- Customer order
- VSM information and calculations
- OEE, GEE and Takt Time calculations
- ★ **Quiz : Constraints related to customer orders**
- ★ **Quiz VSM**
- ★ **Virtual class: introduction to Green Belt, basics of VSM, Takt Time and ABC/FMR**

Week 6 : Controlling the product mix **(~4 hours)**

- Kanban : How it works
- Case study
- SMED, TPM and EPEI
- Product mix and changeover planning
- Difficult challenges
- ★ **Quiz : Tools and methods linked to product mix**
- ★ **Virtual class : the 7+1 questions of the VSM, Autonomous Production Unit**

Week 7 : Set up a Lean management and logistic rounds **(~4 hours)**

- Lean and logistics control tools
- Kaizen meetings
- Provision of components and quality control tools
- Challenges: find solutions to different problems in a factory
- ★ **Quiz : Green Belt certification preparation**
- ★ **Virtual class : Heijunka box, milkman system and kitting**

Week 8 : Preparation week - Green Belt certification **(~5 hours)**

- Challenges: find solutions to different problems in a factory
- Revision tools: virtual classes slides, cheat sheets
- ★ **Green Belt preparation quiz**
- ★ **Virtual class: change management and Green Belt training assessment**

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Week 9 : Applications of the main quality tools & line balancing **(~4 hours)**

- Muda, Muri and Mura
- Application of the main quality tools (Andon, Jidoka & Pokayoke)
- The Yamazumi or "balancing diagram"
- Reduce quality problems and line balancing at Takt Time
- ★ **Quiz : quality and Yamazumi**
- ★ **Virtual class : Line balancing rules + examples**

Week 10 : Advanced OEE & GEE and failure management **(~4 hours)**

- Advanced OEE & GEE
- Study case
- Application of the different types of maintenance & balancing of lines
- Production standards
- FMECA
- ★ **Quiz : OEE and GEE calculations and maintenance types**
- ★ **Virtual class : Failure management and maintenance efficiency**

Week 11 : Apply the principles of just-in-time **(~4 hours)**

- Internal logistics: advanced operations (MADC)
- Kanban calculations and applications and EPEI method (batch size calculation)
- Future VSM (FVSM) examples and calculations
- Application: Kanban loop calculations and just-in-time implementation
- ★ **Quiz : Just-in-time principle and Kanban loop calculation (production and logistics)**
- ★ **Virtual class : Pull flow applications**

Week 12 : Line design and architecture - The continuous flow **(~5 hours)**

- Principles and examples of line architecture
- Production management methods (MTO, MTS, CTO,...)
- Organizational rules and production standards
- Opening on Supply chain and Lean Office / Services techniques - Agile
- ★ **Black Belt preparation quiz**
- ★ **Virtual class: Lean strategy, supply chain basics and Black Belt training assessment**
- ★ **Virtual class: preparation for the exam case study**

EXAM PROCESS

E1: Written test

Modality: on digital platform

Content: the candidate must answer 2 questionnaires "General" and "Lean - Black Belt".

Duration: 50 minutes

E2: Technical file

Modality: on digital platform

Content: on the basis of case studies, the candidate must provide a written dossier including :

- Process mapping: scope of the problem, value flow, malfunctions and waste
- Root causes of the problem: prioritization of potential causes, identification of main causes and sustainable improvements
- Implementation: choice of solution and implementation action plan with associated resources
- Effectiveness measurement: performance indicators and communication tools

Duration: 2 hours

E3 : Summary note

Modality: on digital platform

Content: on the basis of all the case studies dealt with in E2, the candidate must provide a summary sheet including the solutions for appropriation and adhesion of the workshop players, in particular:

- Potential risks on the human factor
- Good practices to be implemented to manage these risks

Duration: 20 minutes

E4: Complementary interview *(optional test at the jury's request)*

Modality: face-to-face or videoconference

Content: If the jury is unable to reach a decision on certain E2 test criteria due to a lack of information, it may request an additional interview with the candidate. This additional interview is designed to clarify the candidate's mastery of skills, so that the certification decision can be made.

Duration: 20 minutes

*Click **here** to read the 7-Shapes rules!*

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