

Organisations gain a competitive advantage when Lean Six-Sigma is implemented correctly. Lean Six-Sigma has been designed to encourage and reward proactive problem prevention as opposed to reactive problem solving.

Six-Sigma is a business improvement and management methodology, originally developed by Motorola. The methodology was devised to reduce process variation in manufacturing systems, where defects were reduced to near zero. Since then, it has subsequently been extended, in conjunction with Lean, and can be adapted to all types of processes.

Program Candidates

Are you aiming to be an exceptional business improvement project leader? Are you aiming to be the best in your industry?

Lean Six-Sigma Black Belts have a global reputation of delivering unrivaled results. Lean Six-Sigma Green and Black Belts are well sought after by organisations. Research has shown that Black Belts typically save companies \$100,000 - \$250,000 per project, per annum.

Why Vative?

- ✓ 120+ years of combined, Six-Sigma Black Belt industry experience
- ✓ Vative has delivered Lean Six-Sigma workshops to 850+ employees from 120+ organisations
- ✓ Training and certification delivered to *Lean Six-Sigma Society of Professionals* (LSSSP) standard

Course Overview

The Black Belt Program is tailored for those that are seeking advanced problem-solving methodologies to execute business improvement projects and initiatives. The program is built on the knowledge and skills gained from the Green Belt program and enables Black Belts to acquire the skills needed to mentor Green Belts within their organisation.

Program Length

12 days (4 days per delivery week).
(Optional) +3 days with Inspire Leadership Program.

"I have no hesitation in recommending **Vative** as a provider of **Lean Six-Sigma training**. We would rank the capability of the material and delivery by the facilitator as the best externally sourced training we have run in RailCorp".

Phil McWhirter, General Manager Continuous Improvement, RailCorp

Black Belt Certification

To receive certification (optional), Black Belt candidates must complete the training, pass an exam, and demonstrate results on two improvement projects.

Inspire Leadership Program

Black Belt Participants have the option of undertaking Vative's Inspire Leadership program. The program will show you how to inspire and motivate your people to create a culture of success through change.

Black Belts learn:

- ✓ Advanced problem-solving methodologies for addressing business improvement projects and initiatives
- ✓ Statistical tools and techniques to make fact-based decisions
- ✓ Detailed understanding of Minitab software
- ✓ Change management skills
- ✓ Exceptional project leadership skills
- ✓ Create a culture where your people feel motivated and empowered to perform (with Inspire Leadership)

WEEK 1

Define Phase

- 1.0 Welcome to Define**
- 1.1 Understanding Six-Sigma
 - 1.2 Six-Sigma fundamentals
 - 1.3 Selecting projects
 - 1.4 Elements of waste
 - 1.5 Wrap up and action items
 - 1.6 Define Xpult simulation

Measure Phase

- 2.0 Welcome to Measure**
- 2.1 Process discovery
 - 2.2 FMEA
 - 2.3 Six-Sigma Statistics
 - 2.4 Introduction to graphing
 - 2.5 Measurement system analysis
 - 2.6 Process capability - normal data
 - 2.7 Process capability - non-normal data
 - 2.8 Wrap up and action items
 - 2.9 Measure Xpult simulation

WEEK 2

Analyse Phase

- 3.0 Welcome to Analyse**
- 3.1 X Sifting
 - 3.2 Inferential Statistics
 - 3.3 Confidence intervals
 - 3.4 Introduction to hypothesis testing
 - 3.5 Hypothesis testing - normal data P1
 - 3.6 Hypothesis testing - normal data P2
 - 3.7 Hypothesis testing - normal data ANOVA in Minitab
 - 3.8 Hypothesis testing - no normal data
 - 3.9 Hypothesis testing - NND - proportions
 - 3.10 Hypothesis testing - NND - contingency tables & chi-sq
 - 3.11 Wrap up and action items
 - 3.12 Analyse Xpult simulation

WEEK 3

Improve Phase

- 4.0 Welcome to Improve**
- 4.1 Intro to implementing change
 - 4.2 Correlation & regression
 - 4.3 Multiple regression
 - 4.4 Designing experiments
 - 4.5 Experimental methods
 - 4.6 Full factorial experiments
 - 4.7 Fractional factorial experiments
 - 4.8 Blocking and power & sample
 - 4.9 Wrap up and action items
 - 4.10 Improve Xpult simulation comp.

Control Phase

- 5.0 Welcome to Control**
- 5.1 Advanced experiments
 - 5.2 Advanced capability
 - 5.3 Lean controls
 - 5.4 Defect controls
 - 5.5 Statistical Process Control
 - 5.6 Six-Sigma control plans
 - 5.7 Wrap up and action items
 - 5.8 Control Xpult simulation discussion
 - 5.9 Further training/support and certification