

# Six Sigma for Manufacturing Industries

## Overview

Six Sigma was originally developed to reduce defects in manufacturing. Today, it is used as a formal quality improvement strategy to improve the quality of products in order to better please customers and improve bottom-line performance.

## Why use Six Sigma?

Six Sigma encompasses a structured problem solving methodology that utilizes scientific tools, data-driven decision making, and formal deployment strategies to guide quality improvement efforts towards perfection. Through this structured methodology, you can improve the quality of your products and processes in order to better please your customers and improve bottom-line performance.

## Objectives

Six Sigma attacks variation in two specific ways:

- Reduction of the variation around the process average
- Shifts the process average to the desired target value

This approach results in quality improvement and virtually defect-free performance.

## Results

The goal of the Six Sigma process is to reduce variation such that performance up to 6 standard deviations from the mean will fall into the customer's desired specification limits (i.e. tightly controlled process variation).

Typical project savings range from \$50,000 to \$250,000.