

## Six Sigma Overview

### What is Six Sigma?

Six Sigma is a Problem Solving and Process Improvement methodology which aims to drill down to the Root Causes of business issues through data-driven decision making and robust analysis. The basic route is known as DMAIC:

**Define**...the problem, Voice of the Customer, and goals of the project

**Measure**...key points in the process to collect relevant data and understand the issue

**Analyse**...data gathered to prove or disprove that the correct Root Cause(s) have been identified using statistical tools and techniques

**Improve**...the process based upon sound data analysis to create a robust future state

**Control**...the future state to ensure that it is impossible for the problem to return, and any deviations from target performance are captured and rectified immediately

### What does Six Sigma do for us?

Six Sigma projects focus on closing gaps in Cost, Quality and Delivery performance. Anything that can be described as a process with Inputs and Outputs, has the potential to be improved. Some of the projects we have worked on include:

PRIMARY BENEFIT	SERVICE EXAMPLES	MANUFACTURING & BULK PROCESSING EXAMPLES	PUBLIC SECTOR EXAMPLES
COST	Remove Non-Value-Adding activities, thereby increasing efficiency	Reduce value of stock, freeing up working capital and space	Reduce energy consumption, thereby reducing wastes and costs and improving carbon footprint
QUALITY	Reduce time taken to resolve complaints, thereby increasing satisfaction and reducing risk	Increase right first time on any process to increase satisfaction and efficiency	Remove duplication in any process to reduce errors and increase throughput
DELIVERY	Reduce time taken to gain product approvals so as to cut time to market	Reduce cycle time, change over time and lead time to improve delivery performance and reduce freight costs	Reduce hand-over time to increase capacity and reduce costs
PEOPLE	Reduce time taken to secure permanent and contract staff thereby increasing delivery/availability performance	Reduce time taken to resolve queries thereby eliminating frustrations and increasing capacity	Reduce time taken to train new staff thereby increasing performance and satisfaction

### Normal project outcomes for businesses include:

- Improved customer satisfaction
- Annual direct savings
- 50-70% reduction in waste
- 30-50% improvement in productivity
- Developing quality products and services
- Reduced time to market
- Increased process reliability
- Improved communication and team-working

### ...and for the individual:

- Increased knowledge and skills
- Ability to use a wide range of tools and techniques
- Improved satisfaction
- Certification recognised world-wide

## Leadership and Personal Development, Strategic Management, Lean Six Sigma & Quality Tools

## Can Six Sigma help improve our Carbon foot print?

All process improvements yield reductions in Carbon Emissions. Our Environmental Scientist can calculate the CO2 impact of any process improvement.

## What are Green Belts and Black Belts?

**Green Belts:** The normal entry point for an individual beginning their Continuous Improvement journey within a company. Green Belts undergo 6-8 days of training and take on improvement projects alongside their normal job duties, operating under the guidance of an allocated Black Belt.

**Black Belts:** People with high levels of knowledge and experience in Problem Solving and Process Improvement who receive 10-12 days of training. They lead improvement projects that focus on complex processes, support and guide Green Belts and provide expertise to the rest of the business.

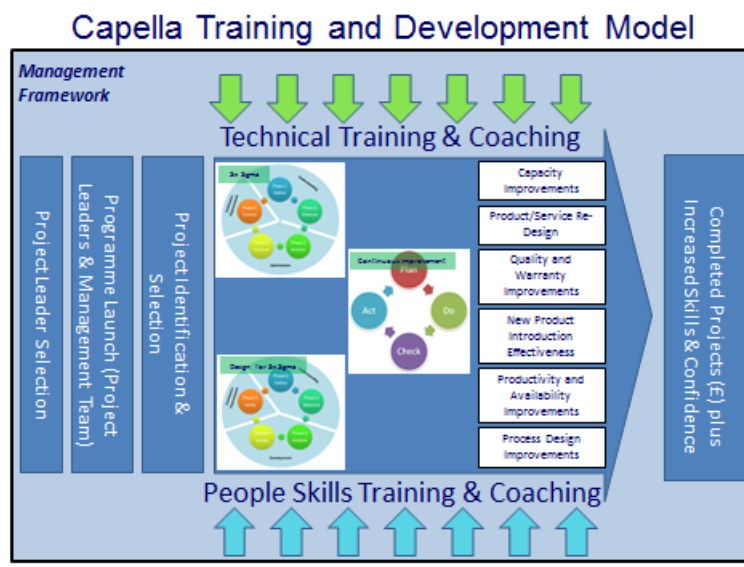
## How long does it take to complete a project?

Typical Green Belt improvement projects take 4-6 months. Black Belt level projects take 6-8 months.

## How does Six Sigma fit with Lean and other tools for process improvement?

Six Sigma provides us with a simple, scalable method for solving problems and improving processes. DMAIC helps decide what we should do next and enables us to use any tools that are appropriate with confidence. For example, we can use Value Stream Mapping from Lean to help identify key areas for improvement.

Capella's model for training and support encourages people and organisations to make Six Sigma work in their environment:



## What should we do next?

Contact us for more information and to arrange a meeting: [info@capellaassociates.com](mailto:info@capellaassociates.com) or Kate Smith on 01386 793981

Leadership and Personal Development, Strategic Management, Lean Six Sigma & Quality Tools