

Management Systems, Lean Six Sigma and Business Assurance

We live in a world with more challenge and greater uncertainty than ever before and in this environment, management systems can really thrive and help organisations the most. As the future of management systems is becoming clearer, reducing risk and improving performance are likely to become the main tenants of all management system standards. Management system standards already contain the common requirement for continual improvement as one pre-eminent expectation of a management system, all are likely to define more explicit requirements for risk management in the future.

In management system terms, continual improvement is defined as 'a recurring activity to increase the ability of an organisation to fulfil requirements'. This is continual improvement of both process and performance to provide stakeholders with confidence in the capability of the management system, to ensure appropriate performance that is robust, repeatable and sustainable.

Risk in management system terms is defined as 'the effect of uncertainty on objectives', ISO Guide 73 2009. Organisations using management systems are now going to need to think more about how they improve the capability of a process by reducing risk and uncertainty.

It goes without saying that an organisation needs to have a systematic way of delivering continual improvement, reducing uncertainty and improving reliability within their management systems, whether those systems are focussed on Quality, Environment, Health & Safety or Security.

Lean Six Sigma is a way that organisations can meet these requirements irrespective of the management system discipline; because it works at a process level and all management systems are about the design of processes to achieve desired outcomes.

It can therefore be applied to any discipline and any process whether you are looking to:

- Reduce the number of lost time accidents
- Reduce energy consumption
- Improve reliability of process performance
- Improve the capability of a process to deliver the required output, etc

The Lean Six Sigma approach works to both improve the performance level and capability of a process to deliver that performance reliably, repeatably and sustainably.

Process Improvement follows the five step **DMAIC** approach:

DEFINE	A problem is identified, resources are allocated and given the
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	responsibility to solve the problem.
MEASURE	Data that describes accurately how well the process is working currently is gathered together with a Process Map showing how the process is currently working in practice in order to produce a baseline and true understanding of the current state of the process and some preliminary ideas about what might be causing the problem
ANALYSE	Based upon these preliminary ideas, theories are generated as to what might be causing the problem and by testing these theories using data and process analysis root causes are identified
IMPROVE	Root causes are removed by means of designing and testing changes to the offending process
CONTROL	The improvements are put into practice and new controls are designed and implemented to prevent the original problem from returning and to hold the gains made by the improvement

Process or product/service design or re-design follows the five step **DMADV** approach:

DEFINE	Identify or confirm the scope and plan the project, taking into account the stakeholder requirements
MEASURE	Develop a set of performance requirements for the future product or service that match these goals based on research into customer needs and requirements
ANALYSE	Carry out an analysis of these performance requirements for the future process and based upon the outcomes, produce function specifications and an outline design
DESIGN	Work this outline design up into a detailed design for the future product or service and then test and evaluate the capability of the design by preparing a pilot.
VERIFY	Make sure the new process state performs as required by assessing the pilot and then bring all the facets of project, process and change management together for a full-scale implementation and deployment of the new product/service/process

As a recognised and widely used approach to managing improvement, Lean Six Sigma could help you whether you just improve your knowledge of improvement tools and techniques used within each step, or embed a full Lean Six Sigma approach throughout your organisation.

Lean Six Sigma is an approach that can help strengthen a management system and unlock its full potential; it is therefore complimentary to LRQA's Business Assurance approach to assessment.

LRQA's Business Assurance helps our clients manage their systems and risks to improve and protect the current and future performance of their organisation.

LRQA, through Business Assurance, aims to help clients use management systems to identify and manage risks, as well as to improve and protect the current and future performance of their organisation. Through our assessments, we review how an organisation monitors expectations and performance of the management system and how an organisation uses this information to identify where improvement is needed.