

## CQI Quality World Article

**The problem:** “I know our business needs to adopt some kind of Continuous Improvement System but I am not sure whether this should be a Six Sigma or a lean programme as I have heard both can provide significant benefits in business improvement”

### **Over to the Expert:**

This is a question I am often asked both by our clients and by individuals exploring business Improvement. It is also confused with terms appearing now like “Lean Sigma” or “Green Belt Lean” which seem to indiscriminately combine words from both Lean Improvement activities and Six Sigma.

The honest answer is that both can bring significant business improvements and that they can *both* work within the same organisation, they are not mutually exclusive.

Six sigma as a philosophy is a structured approach to business improvement. It ties together a number of powerful statistical Tools into a project based structure. The goal of six sigma is to drive improvement projects to achieve performance measures in units of Defects per million rather than Percentage yield and therefore gains are measured in orders of magnitude rather than percentage increments. In fact Motorola, who are intimately linked to the development of six sigma, used it to drive goals of tenfold improvement within two years.

Whilst seen by many as being based on Statistical tools Six sigma is deeper than that and involves thinking about activities as processes, using the Plan-DO-Study-Act cycle to increase knowledge and continually improve and the engagement and involvement of the people involved in the change.

Lean based improvement has its roots in the ideas developed primarily by Toyota. It ties together a number of Lean Tools into a system for business improvement. These include Standardisation, 5S, Removal of 8 Wastes, Value stream Mapping, Just-in-time delivery (the right product at the right time in the right quantity) and Jidoka (the ability to detect abnormalities and stop before defects occur). Again it based on process thinking, the Plan-Do-Study-Act Cycle and most importantly developing flexible motivated Team members.

*Should I Choose Six Sigma or Lean?*



Six sigma is most closely associated with reducing the variability of a process (the time taken to respond to an enquiry or the dimensions of a product for example) whilst Lean is most closely associated with the removal of waste in a process (reducing lead time and inventories and increasing throughput of work for example). So it could be said that which improvement system you choose depend on which of the above is most important to your business, removing waste or reducing variability. However, in my opinion this would be a simplification of the decision because both types of improvement are based on the same principles of Process Thinking, standardisation and the Plan-Do-Study-Act cycle of learning. Both are based around a project structure which delivers improvement as a system rather than a series of activities.

The ideal solution would be to invest in both types of improvement activity but with the same training provider so that the economies of scale associated with using a similar project structure and the same underlying principles can be realised. This will enable you to drive all business improvements in a standardised and consistent way and apply the appropriate tools in the most effective situation.

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