

# Starting a continuous improvement program

BY HARRY ONSMAN\*

WHEN it comes to continuous improvement in manufacturing, there really are only two shows in town: Six Sigma and Lean Manufacturing.

There are some clear differences between the two approaches to taking costs out of the business. Six Sigma focuses more on eliminating variances from a process whereas Lean Manufacturing aims to remove waste from the “value stream”.

Of course, these two approaches do overlap at various points and these days it's not uncommon to see combined approaches, sometimes under the heading of “Lean Sigma”. What comprise this hybrid approach depends very much on who designs the approach. For example, many companies like the Sigma “green belt” idea (employees trained over 3-5 days to support continuous improvement projects) and bolt this on to their Lean strategy. Few can afford the “black belt” idea (employees trained over many months to work full-time on continuous improvement projects) so they drop this from their Sigma program.

The Lean approach is a bit like a jigsaw puzzle. It's made up of lots of different elements and part of the fun is putting the whole picture together in a way that makes sense to the organisation. This allows an organisation to put a toe in the water with small initiatives, and then build on that with progressively more sophisticated elements.

This differences between Sigma and Lean can be traced back to the respec-



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tive origins of the two programs. Six Sigma comes from high-tech and complex manufacturing environments such as the semi-conductor industry (Motorola and Allied Signal) which demands big-hit gains from their improvement projects. Lean comes from the automotive industry (Toyota) and focused on small but continuous incremental improvements.

Of course, ultimately both can be traced back to the early days of the post-WWII quality movement, especially as developed by the Japanese. But nevertheless, the modern interpretations have taken different journeys to get to where they are today.

Depending on the implementation strategy, Lean can involve quite a modest commitment, one that can be managed without much training, and capable of being run by managers in addition to their normal duties (although some might argue that improving the business is possibly more important than “normal duties”!).

Simple and straight-forward Lean elements such as “Five S” and “Visual Management” require only a bit of research and training before they can be launched into the workplace. More specialist elements such as Pull Systems and Production Levelling can then build on and extend the earlier efforts.

Many small and medium sized manufacturers are attracted to Lean because of its “building-block” approach. This becomes important if the organisation wants to take a “Do-It-Yourself” approach to continuous improvement. If the most important selection criteria is about what the organisation can manage to do by itself, without resorting to external resources such as trainers and consultants, Lean is good choice.

However, even relatively simple Lean initiatives can easily run into barriers that can seem insurmountable. Many managers can recall bitter experiences in setting up problem-solving teams (“quality circles”) that lead to only minor or even zero improvement. This must be especially galling when they can see other organisations gaining significant benefits from such improvement techniques.

Some of these barriers can be overcome with a little knowledge about how to implement the various elements of Lean. To this end, I want to review and discuss those improvement techniques that can be readily adapted to a Do-It-Yourself approach. Of course, all tools and techniques do require some effort to generate pay-offs, but some techniques are clearly more suited to the “instant DIY” approach than others. In future columns, I will be offering some advice on where and how to start your DIY continuous improvement program.

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