

# THREE WAYS TO IMPROVE QUALITY WITH LEAN MANUFACTURING



I have been involved in at least two major projects in the past year that involved combining a Lean program with quality process improvements, which got me thinking about the combination of the two.

In one case, we're performing quality as an in-line process – instead of an external process performed in ERP, which held the master data for quality inspections. This process improvement has eliminated delays caused by constant exchanges between ERP and shop floor operations. Inspection results are obtained in real-time and thus immediately available for final usage decisions, reducing overall process lead time. Material throughput has accelerated along the production line for a faster, cleaner workflow.

There's a lot of talk and thinking about Lean squeezing out every last penny from the manufacturing floor – down to turning off lights or reducing an arm's movement by a single second – I approve of that message.

But in the meantime, being Lean with your quality process can sometimes seem like a forgotten dark corner. How many manufacturers are installing halogen bulbs and making sure unused lights are turned off, when their quality process is comparatively chaotic? Perhaps this oversight is happening because Lean initiatives in Quality are not entirely intuitive. Nobody realizes there is potential because they can't imagine it any other way.

So, I will try and do my part to help raise awareness of this opportunity for reducing waste (or “muda”) from your manufacturing operations. Here are three tips, based on what I am seeing some of Apriso's customers do in their efforts to apply Lean to quality:

1. Perform your quality inspections as close to the shop floor as possible. This means embedding your quality process within production, warehouse, receiving and other operations; this approach requires real-time visibility and control over your material flows and processes, and most likely, just-on-time deliveries to perform these processes efficiently.

2. Inspect early in the process. One of the highest costs of quality is a defective part or material that forces you to discard an entire batch; the farther along in the process, the more pain and cost involved. So, you need to inspect with intelligence, using flexible sampling rules and inspection plans that can be adjusted to the specifics of the product, production line, manufacturing process, etc.
3. Implement and enforce the use of best practices. What I mean here is to start thinking seriously about how you can replicate your quality processes across not only the production line at one plant, but across all facilities; as new best practices are identified and validated, get them in place everywhere. A Center of Excellence (or COE) is a great way to accomplish this task. Shared and enforced global inspection plans and processes are a great way to make the most efficient processes the standard for the company, thereby further amplifying the benefits of your Lean program.

Source: <http://www.aprison.com/blog/2011/03/three-ways-to-improve-quality-with-lean-manufacturing/>