

LEAN SIX SIGMA: Do You Really Know These Methodologies?

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How well do you know Lean?

The concept is nothing new. Pioneered back in the day by Toyota ... or by Henry Ford even earlier, depending on who you ask, Lean manufacturing is the art of maximizing customer value while minimizing waste. Industry Week magazine sums up Lean this way: “Lean strives to change the focus of management from optimizing separate technologies, assets and vertical departments to optimizing the flow of products and services through entire value streams.” It’s about cutting costs, eliminating waste in both processes and products, and generally becoming as “lean and mean” as possible to reach optimal efficiency. Who doesn’t want that, right? Especially now.

Another, newer term is often bandied about when talking about Lean: Six Sigma, a methodology designed to tackle defects in manufacturing and product/service development. Two sides of the same coin, Lean looks at making processes more efficient and reducing process lead times, while Six Sigma focuses on cutting down on defects. In fact, they’ve joined to become one methodology in some circles: Lean Six Sigma, or LSS, which aims to cut defects and shorten lead times. What is it? Are they stronger together? Could they clash? Who should use it? And who shouldn’t?

In this eBook, we’ll look deeper into Lean Six Sigma through the lens of Dr. Frank Esposito, USCCG’s Lean Six Sigma Master Black Belt and Senior Director of Quality, and a certified LSS instructor. You think you know Lean Six Sigma? Read on.

Lean and Six Sigma, defined

The whole concept of Lean started with identifying and eliminating waste in manufacturing operations. Toyota called them the “seven deadly wastes” and that term stuck. The goal is to create greater efficiency on the line.

Six Sigma is a set of techniques aimed at reducing (in a perfect world, eliminating) the probability that an error or defect will occur in the process.

Together, as Lean Six Sigma, the two methodologies pack a punch of efficiency and perfection. LSS enables companies to produce better product faster, increasing throughput.

It all started with those seven deadly wastes, pioneered by Toyota.



Seven deadly wastes (or is it 8?)

Let's look at the classic “seven wastes” identified by Toyota's Lean manufacturing model, and think about adding one more.

- **Overproduction.** It leaves you with unused product.
- **Waiting.** Waiting on the shop floor between steps on the line, or waiting on supply or even equipment.
- **Transporting.** Excessive movement of inventory, causing the possibility of damage, or even excessive movement within the manufacturing process itself.
- **Processing.** Do you have extra, unnecessary steps in the manufacturing process?
- **Inventory.** Too much stock on hand.
- **Excess motion.** Extra walking, lifting, reaching.
- **Defects.** Defects in product happen to the best of us.
- **People.** This is the eighth waste. It is about taking a close look at the untapped potential of your people.

Examining all of these areas of “wastes” in your operation will help you become more efficient and ultimately more profitable.



Lean Six Sigma training

Lean is very effective in making processes more streamlined and faster. Six Sigma is very effective in reducing defects. Ironically, Lean and Six Sigma can clash if not deployed correctly. For example, defects can be reduced by slowing processes down — reducing speed. On the other hand, you can increase the defect rate by speeding up processes.

Getting it right, striking that perfect balance is imperative. That's why it requires training and certification in the techniques. At USCCG, Dr. Frank Esposto is a Lean Six Sigma Master Black Belt and Senior Director of Quality. He is also a certified LSS instructor. When we employ the Lean Six Sigma methodology to help our clients' operations, we don't simply come in and do it for them. It's the old "give a man a fish vs. teaching him how to fish" philosophy. We train clients in these techniques so they can employ them long after we leave.

The training course Frank teaches is rigorous and hands-on. When participants complete the course, they are certified. Being certified in Lean Six Sigma is a highly sought-after skill.

Key challenges and success factors

The Lean Six Sigma process works, period. But, we've found some key challenges that can impede the process, and success factors that can help overcome those challenges and ensure the process works.

SUPPORT FROM THE TOP

It is absolutely critical to get buy-in from the top brass. It's a huge challenge if senior management doesn't understand Lean Six Sigma and doesn't support process improvements.

TRAINING THE RIGHT CANDIDATES

Obviously you can't train your entire staff. Who are the best people to choose? Frank explains that it's important to pick someone who wants to learn new tools, techniques and methods, has a passion for problem solving, and — something you might not initially think about — is a good public speaker who can be an advocate. They should have basic math

skills but Frank explains he doesn't need statisticians. Other key factors:

- Select someone in the department you want to grow within your organization.
- Someone with a fairly good understanding of the processes they are trying to improve.
- Respected by peers and upper management in order to lead after USCCG's role is over.

IDENTIFYING THE RIGHT PROJECTS

Lean Six Sigma will work for any problem, but it might be overkill for some depending on the complexity.

SET GOALS AND A TIMELINE

Sometimes it is difficult to know when the project is "done." Setting concrete goals and giving the project a timeline will give you a framework to measure success.

START WITH THE FUNDAMENTALS

Your first task is to look at the basics. Where are the losses, and where are the defects?

CREATE A CAREER PATH FOR YOUR NEWLY CERTIFIED EMPLOYEES

Being certified in Lean Six Sigma is a highly marketable skill that looks great on a resume. You need to be prepared for the possibility that, if you don't recognize and reward that achievement, your certified people might take their skills elsewhere. We advise companies to think about a career path forward for newly skilled employees, so they can see opportunity ahead to use those skills.



Benefits of LSS

All of this sounds like a big undertaking. We get that. But the benefits your company will realize from this process, tangible and intangible, will far outweigh the effort to get there. Here are just a few.

TANGIBLE BENEFITS

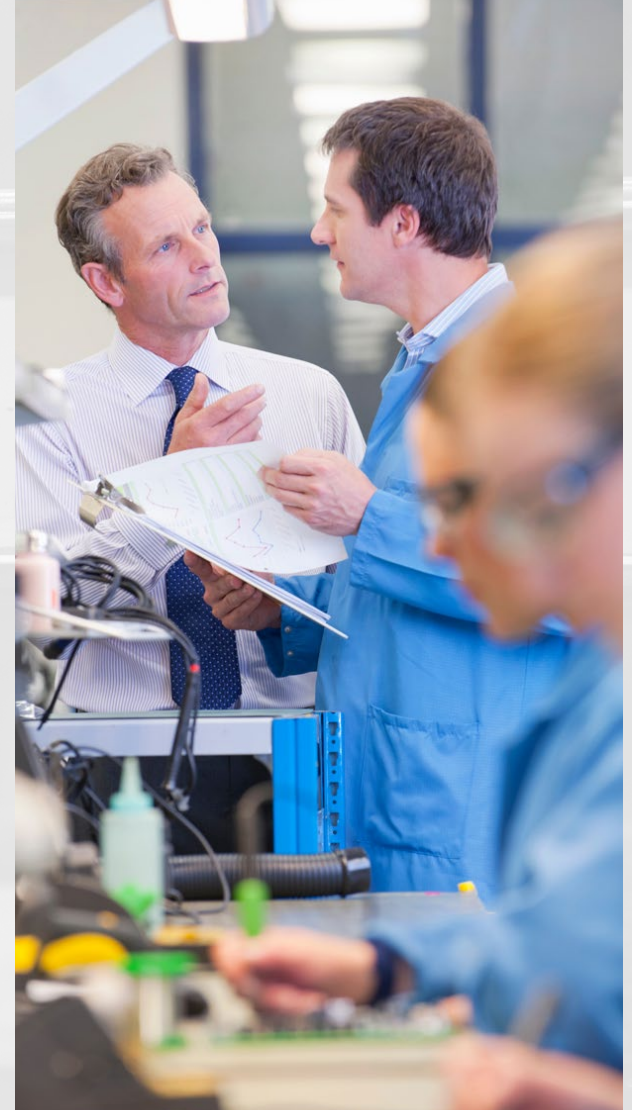
These are the immediate results you can see after the process takes hold. They're your powerful ROIs.

- Greater efficiency.
- Less waste.
- Enhanced profits and revenue.
- Fewer defects.

INTANGIBLE BENEFITS

These aren't so easily defined. They're not going to show up in your bottom line right away. But they are powerful improvements to your company.

- Employees are learning and growing within your organization.
- Employees feel good about their work day rather than feeling frustrated with snafus on the shop floor.
- Reduced turnover rates.
- Improved company reputation for excellence, which helps retain current customers and acquire new ones.
- Customer satisfaction



The LSS methodology is ideal for chronic issues that require an advanced set of tools, techniques and methods to generate effective solutions. But it doesn't mean it's a one-size-fits-all solution. At USCCG, we customize your problem solving methodology to existing challenges. If you'd like to hear more about it, [contact us](#) today.

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