



Lean Manufacturing

Webinar: The Value of Continuous Improvement and Lean Certification

Don Sears | Jan 29, 2019

Have you considered obtaining lean certification? A recent webinar about the lean certification alliance that includes the Shingo Institute and SME explores the benefits.

Everyone in today's manufacturing has surely heard of "lean manufacturing." It's been around for quite some time now. In a **recent webinar on Better MRO** sponsored by Tooling-U SME, however, the presenter made sure that the first thing to know about lean principles is that they are not industry dependent.

"Lean is not industry-specific because waste and inefficiencies can be present in any process," says Chad Vincent, director of lean manufacturing for American Railcar Industries. "Lean can be implemented at companies of any size for any service or product, in any industry including healthcare, biomedical, financial sectors, and of course manufacturing—which has been practicing it for a long time—and aerospace, oil and gas, and many more."

Vincent has over 20 years of lean manufacturing experience. Prior to his current position at American Railcar Industries, he worked as a lean specialist in the industrial packaging industry, as a quality engineer in the medical device manufacturing industry, as a project engineer in the construction industry and was in management in the logistics and transportation industry. He has certifications in lean methods and is a black belt in Six Sigma.

Near the beginning of his presentation, Vincent talked about the lean certification alliance between the Association for Manufacturing Excellence, the Shingo Institute and SME that "draws on their collective excellence and proven practices of thousands of individual members to provide continuous improvement practitioners in-depth access to the latest lean and continuous improvement thinking and best practices." This alliance created and keeps a lean certification program and offers training and education.

Business Competitiveness Is Fundamental to Lean Methods

Lean principles work best when an entire organization is on board with taking "the journey of

continuous improvement,” says Vincent. That journey includes “a relentless pursuit of eliminating waste, overburden and unevenness, or irregularities in the processes.” It works best, he says, when it is used as a business philosophy that’s understood and practiced by everyone, including leadership down to the shop floor.

Vincent then spends some time talking about the benefits to individuals and to organizations as a whole in becoming “lean” organizations. For individuals, lean thinking “helps one identify inefficiencies and waste, drive business improvements, and advance his or her career,” through applied learning, constant new discoveries and learning new ways to experiment to eliminate waste and add value to the organization, he says. Personal career growth and personal influence are the benefits of being a part of the lean movement, says Vincent.

“For me, the personal growth aspect within my own lean journey has been the most impactful,” says Vincent.

Want to learn how to get lean on the shop floor? Read “Principles of Lean Process Improvement: Minimize Movement.”

The Connections Between Principles, Systems and Tools in a Lean Environment

What most people don’t understand about lean is that its greatest value “is the integration and the understanding of how principles, systems and tools promote specific behaviors and create sustainable cultural change,” says Vincent.

Principles are guiding beliefs. Systems are the processes employed to maintain the principles. Tools are the devices that carry out a process.

Too often, businesses rely on tools without understanding the principles behind them. When tools are aligned with systems and principles, ideal behaviors follow, explains Vincent. Tools can be visual management (such as a Kanban system), and things such as takt time, which is the rate of customer demand.

“‘Standard work’ is a tool to standardize a process through documentation,” says Vincent. “A tool is nothing more than a point solution or a specific means to an end. Sometimes we tend to concentrate too much on the tool as the solution and the system.”

If the tool isn’t improving a process, find a different means to help improve toward that end.

Vincent then quotes **Dr. Shigeo Shingo**, the industrial engineer who is considered the world’s leading expert on lean manufacturing and creator of the Toyota Production System, saying that tools are really just techniques for problem solving. They are necessary but not sufficient.

“He taught that tools should be selected to enable a system to perform its intended purpose until a better solution comes along,” says Vincent.

The Shingo Model, which is used heavily in lean certification, uses 10 guiding principles. The building blocks or fundamentals include: Cultural enablers—such as leading with humility, continuous improvement, enterprise alignment and the attainment of results for customers.

In addition, Vincent spends some time talking about the crossover between Six Sigma practices, which aim to eliminate variation and the principles of lean methodology where variation is considered a form of waste.

“Variation will be identified when applying lean,” says Vincent. He then talks about areas where both Six Sigma tools and methods and lean tools and methods can be applied together.

"Top performers often hold lean and Six Sigma certifications, as this provides the most comprehensive skill set than either one alone," says Vincent.

Vincent says implementing lean and lean certification has the following benefits:

- Increases ROI
- Leads to overall improved performance
- Improves safety ratings
- Validates lean knowledge
- Reduces turnover
- Differentiates candidates beyond academic experience
- Validates knowledge against industry standard

There are three levels of lean certification: bronze (tools), silver (systems) and gold (principles).

Vincent then took questions, which focused on getting leadership and management to adopt lean across the organization.

"It can be tough," says Vincent. "It depends how much your management knows about lean. How do they define the future state of the organization? Because at the end of the day, if you want an organization to become lean it starts with the leaders."

Connect to an in-depth **white paper** on Lean that helps document how to approach manufacturing-specific training.

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