



CONTINUOUS IMPROVEMENT WITH TONY NEWSLETTER, VOLUME 5, APRIL 16, 2024

HOW TO CONVERT YOUR PROCESS IMPROVEMENT PROJECTS INTO A CONTINUOUS IMPROVEMENT VIRTUOUS CYCLE

Lean is a philosophy advocating for continuous improvement and the elimination of waste of all kinds. **Six Sigma** is a data-driven framework for solving complex problems where the customer is known, and the solution is unknown. While they have been used separately with success for decades, combining them makes sense, because this overcomes weaknesses in both approaches. Lean lacks Six Sigma's proven framework to run continuous improvement projects and initiatives. Six Sigma suffers from its end-of-project approach that hopes improvements will sustain themselves after the project is completed. By combining both, Six Sigma's process improvements and error reductions can be imbedded into Lean's continuous improvement philosophy.

A simple way to combine the two approaches is by using value stream maps. While process maps show who does what and when in a process, value stream maps add the work effort required for each step. **The bottleneck in the process is the process with the most waste, e.g., the process with the largest difference between the cycle time and work time.** Value stream maps are a terrific way to highlight the largest bottleneck or constraint in a process. Once the bottleneck is identified, Six Sigma's DMAIC framework (Define-Measure-Analyze-Improve-Control) can be applied to improve an existing process. For a new process or a process so broken that it needs to be replaced, Six Sigma's DMADV (Define-Measure-Analyze-Design-Verify), can be applied. DMADV is also known as Design for Six Sigma.

The next step is critical to convert a Six Sigma project into Lean's continuous improvement virtuous cycle in which the journey never ends: **once the existing bottleneck is eliminated or substantially reduced, rerun the value stream map.** The

bottleneck will always move and sometimes move to unexpected areas of the process. The cycle continues attacking the new biggest bottleneck.

This is the most fundamental philosophy of Lean as envisioned by Taiichi Ohno, the creator of the Toyota Production System; there is always a better way to do things. Even after Toyota created the most efficient production lines in the world, they used Kaizen and other techniques to continue the never-ending continuous improvement journey.

PREDICTION: Generative AI will not greatly improve Lean, Six Sigma, and Continuous Improvement initiatives until practitioners, educators, and data scientists work together to replace qualitative and subjective inputs from subject matter experts (SMEs) with quantifiable data from all applicable Smart Technologies.

SUBSCRIBE AND CONNECT

If you find this newsletter insightful, please subscribe, and share it with colleagues who might benefit. I'm also curious about the topics or educational programs you'd like to explore. Let's continue improving together!

Subscribe on LinkedIn <https://www.linkedin.com/build-relation/newsletter-follow?entityUrn=7171935887566598144>

Visit my website for earlier newsletters and links to over 20 popular continuous improvement and Lean Six Sigma tools; <https://anthonygtarantino.com/>

SERVICES OFFERED

If your organization is open to process improvement and Lean initiatives, I am ready to provide practical and cost-effective high ROI solutions. Please contact me at tony@anthonygtarantino.com for a no obligation conversation.

Cheers, Tony



Anthony Tarantino, PhD

Six Sigma Master Black Belt, CPM (ISM), CPIM (APICS)

Adjunct Professor, Santa Clara University – Smart Mfg. & Industry 4.0

Author of Wiley's *Smart Manufacturing, the Lean Six Sigma Way* [Amazon Links](#)

📞 (562) 818-3275 ✉️ tony@anthonygtarantino.com [LinkedIn](#) [Anthony Tarantino](#)

#smartfactory #smartmanufacturing #industry40 #leanmanufacturing #leansixsigma #continuousimprovement #ai #artificialintelligence #supplychaininnovation #supplychainmanagement #blackwell @Nvidia

