

Lean Green Sustainability: A Framework for Efficiency, Waste Reduction, and Environmental Impact



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Organizations aspire to enhance their environmental impact, yet face a challenge in integrating sustainability seamlessly into continuous improvement initiatives. Lean principles offer a systematic approach to continuous improvement, eradicating waste across the organization from production to the supply chain. This not only enhances quality, reduces costs, but also adds value for customers. Emphasizing optimized resource usage and increased process efficiency, Lean aligns with Sustainable Green strategies that target environmental waste in water, energy, air, and solid/hazardous waste. Both Lean and Green share common ground in waste reduction, continuous improvement, and cleaner production. This presentation unveils an integrated Lean Green Sustainability Framework, merging principles, tools, and methodologies. Grounded in the Plan-Do-Check-Act phases and circular economy's 5 Rs (refuse, reflect, reduce, reuse, recycle), this framework provides a straightforward yet potent path for navigating Lean improvements that bolster sustainability.

Biography:

Dr. Elizabeth Cudney is President of Cudney Consulting Group, LLC. She is also a Professor of Data Analytics in the John E. Simon School of Business at Maryville University. She received her B.S. in Industrial Engineering from North Carolina State University, Master of Engineering in Mechanical Engineering and MBA from the University of Hartford, and doctorate in Engineering Management from the University of Missouri – Rolla. She is a recipient of the ASQ Crosby Medal, IAQ Masing Book Prize, IAQ Yoshio Kondo Academic Research Prize, and ASQ A.V. Feigenbaum Medal. She is an ASQ Fellow, IISE Fellow, ASEM Fellow, and Academician in the International Academy for Quality.