

Keynote Speakers for the 9th International Conference on LSS, Newcastle, 13th and 14th November 2023

1. First Speaker: Professor Peter Hines, Enterprise Excellence Network, UK

Title: The Future Direction of Lean Six Sigma in the Digital Era: Technology and People

Synopsis



Over the last three decades we have seen the importance to industry of various OPEX approaches such as Lean, Six Sigma, Kaizen, LSS and Agile. Each of these has contributed greatly, although been criticised for a lack of explicit focus on people and hence sustainability. More recently has seen the emergence of Industry 4.0 (and Industry 5.0) which has added a raft on new digital technologies offering new improvement possibilities.

This presentation seeks to make sense of these developments and bring a new agenda for Lean Six Sigma based on research with the top 300 global scholars, a 1000+ global survey of the needs of industry, ten week-long focus groups with global OPEX and technology leaders and advanced Lean Industry 4.0 case studies.

The new approach is based on a triple helix of continuous improvement, technology, and people. It not only helps create a way forward but a framework for future research and sustainable implementation avoiding the mistakes we have all made over the last three decades of OPEX application.

Biography

Professor Peter Hines was the Co-Founder of the Lean Enterprise Research Centre (LERC) at Cardiff Business School. LERC grew to be the largest academic research centre in lean globally. He has undertaken extensive research into Lean and written or co-written twelve books including Shingo Prize winning books “Staying Lean”, “Creating a Lean & Green Business System” and “The Essence of Excellence”. His latest book “Why Bother” was published in 2022 and received Shingo Publication Award in May 2023.

Peter now runs the Enterprise Excellent Network providing European based forms with on-site benchmarking, learning and networking opportunities. He also continues his academic links with work in the Lean/Industry 4.0 and Lean/People spaces and is a Visiting Professor at South East Technological University an Faculty Fellow with The Shingo Institute at Utah State University.

2. Second Speaker: Professor Kevin Linderman, John J. Coyle Professor of Logistics and Supply Chain Management and Department Chair of the Supply Chain and Information Systems department at Penn State University, USA

Title: The Role of Lean Six Sigma in Operational Excellence across the Digital Supply Chain

Synopsis



Emerging technologies and data analytics hold the opportunity to transform business processes. Industry 4.0 Technologies create new opportunities for firms to connect their processes with their customers' and suppliers'. However, as firms race to implement new technologies and systems it is important that they don't simply automate their defects. Lean Six Sigma plays a pivotal role in ensuring that technology transformation translates into operational excellence. This talk explores how Lean Six Sigma can help firms in their technological transformation and what new skills and capabilities Lean Six Sigma professionals (e.g., black belts) need to support this transformation.

Biography

Kevin Linderman is John J. Coyle Professor of Logistics and Supply Chain Management and Department Chair of the Supply Chain and Information Systems department at Penn State University. Prior to joining the Smeal College of Business he was the Curtis L. Carlson Professor in Supply Chain and Operations at the University of Minnesota's Carlson School of Management and the Academic Co-Director of Joseph M. Juran Center for Research in Supply Chain, Operations, and Quality. Prof. Linderman has received a number of scholarly awards including being ranked in the 2020 Decision Science Journal as one of the top 10 most productive and influential scholars in the field, the 2018 Supply Chain & Operations Teaching Award (student nominated), 2016 Associate Editor Award Journal of Supply Chain Management, 2016 Operations Management Scholar Award (Career Award - Academy of Management), 2016 Associate Editor Award Decision Science Journal, 2015 Associate Editor Award Journal of Supply Chain Management, 2015 and 2011 Carlson School of Management Research Award, 2010 and 2006 Elwood S. Buffa Doctoral Dissertation Award (Co-advisor), 2004 Academy of Management Chan K. Hahn Distinguished Paper Award. Professor Linderman's research encompasses the areas of process improvement (e.g., six sigma and lean), environmental management, innovation, and supply chain risk.

3. Third Keynote Speaker: Professor Jaap van den Heuvel and Professor Ronald J.M.M. Does, Netherlands

Title of the Keynote: How to Create Performance Excellence in Hospitals with Lean and Lean Six Sigma?

Synopsis:

Quality improvement and cost containment in healthcare are two critical issues to manage. Finding ways to improve quality and simultaneously reduce cost is one of the most promising management strategies that may benefit the medical profession as well as the public in general. This lecture is based on a retrospective analysis of quality improvement initiatives using either Lean or



Six Sigma or the combination of Lean and Six Sigma in hospitals, facilitating a case-based reasoning approach combined with practical experiences. Concepts and ideas of quality management are presented that with modifications and adjustments can help healthcare professionals achieving performance excellence in hospitals. Considering hospitals being complex adaptive systems, a hierarchical approach will not lead to the desired results. We will show that the best strategy for a hospital to obtain performance excellence is the Lean Management approach in combination with running projects based on the DMAIC methodology.

Biography of the Speakers:

Jaap van den Heuvel is professor emeritus Healthcare Management and former Program director of the Amsterdam Business School on the University of Amsterdam in The Netherlands. He received an MBA and a doctorate from the university of Rotterdam on the application of Six Sigma and ISO 9000 in healthcare. Started as a physician, he worked most of his career as CEO in several Dutch hospitals.

Ronald J.M.M. Does is professor emeritus of industrial statistics and former executive director of the Institute for Business and Industrial Statistics, Amsterdam Business School, University of Amsterdam, Netherlands. He received a doctorate in mathematics from the University of Leiden. He is a fellow of ASQ and ASA, academician emeritus of the International Academy for Quality, recipient of the Hunter Award, and Shewhart, Box and Lancaster Medals.

4. Fourth Keynote Speaker: Professor Roger Hoerl, Brate-Peschel Professor of Statistics at Union College in New York, USA

Title: Lean Six Sigma in the era of Digitization: Where are we today and where are we going?

Synopsis:



The digital revolution was still in its early stages when Lean Six Sigma (LSS) was developed in the 20th century. While LSS continues to be researched and applied with success, it is clear that all application areas, from industry to health care to education have now changed quite since then. The development of Industry 4.0, and the anticipated Industry 5.0, are key factors involved. Is LSS compatible with Industry 4.0 and 5.0? How might it need to evolve to continue to be effective? In this session we will evaluate where things are today with LSS, discuss how we got here, and look ahead to the future of LSS in Industry 5.0.

Biography: Roger W. Hoerl is the Brate-Peschel Professor of Statistics at Union College in New York. Previously, he led the Applied Statistics Lab at GE Global Research, and was an MBB and also Quality Leader with GE. While at GE, Dr. Hoerl led or oversaw hundreds of Lean Six Sigma projects, including one for then-CEO Jack Welch. Dr. Hoerl has been named a Fellow of the American Statistical Association and the American Society for Quality and has been elected to the International Statistical Institute and the International Academy for Quality. He has received the Brumbaugh and Hunter Awards, as well as the Shewhart Medal, from the American Society for Quality, and the Founders Award and Deming Lectureship Award from the American Statistical Association. While at GE, he received the Coolidge Fellowship from GE Global Research, honouring one scientist a year from among the four global GE Research and Development sites for lifetime technical achievement. He has authored eight books on continuous improvement and statistics.

5. Fifth Keynote Speaker: Jd Marhevko, VP of Quality for ZF Group's Electronics & ADAS Division, USA

Title of the Keynote: Using Strategic Planning To Leverage Digitization To Grow Your Operational Excellence Culture

Synopsis:



Organizations today must engage on some level of digitization to be effective and competitive. When done well, digitization can strengthen an operational excellence culture and business results. How is digitization to be leveraged during the design and development of an organization's strategic planning process while enabling operational excellence? The answer is - with intention. Learn how digitization can be systematically incorporated into the strategic planning and deployment of an organization. Hoshin Kanri is an operational excellence vehicle in which digitization planning and deployment can be developed to enable operational excellence. Organizations with the strongest operational excellence cultures often use Hoshin Kanri. These businesses generally outperform their peers. We will review the basic stages of strategic planning and how to use Hoshin Kanri to incorporate digitization into an organization. Walk away with ideas on what you can personally do to help make a difference.

Biography: Jd is a VP of Quality for ZF Group's Electronics & ADAS Division. She has served in several executive lean, quality and operations roles. While in these roles, Jd has helped multiple site teams to evolve from bankruptcy to Best In Class via recognition awarded by the Association of Manufacturing Excellence and/or Industry Week (USA). In 2020, Jd was inducted into the inaugural USA's Women In Manufacturing (WiM) Hall of Fame. Jd is an ASQ Fellow, Shainin Medalist, CMQ/OE, CQE, CSSBB and MBB. In 2018, she was recognized by Crain's as a notable Woman in Manufacturing. She holds a BSE and MSA. Jd is a Past-Chair of the ASQ QMD. She currently supports the ASQ QMD in a variety of capacities. Jd has co-authored several books and articles on Lean and Quality Systems: most notably, Accuride Corporation's Lean Management 50-50-20 and a small vignette depicting their family's journey with autism, A Sample Size of One.

6. Sixth Speaker: Mr Robert G. Launsby, Founder of Launsby Consulting, USA

Title: Enhancing the effectiveness of Design of Experiments with ML algorithms

Synopsis:



Experimental design is an amazing tool that benefited scientists and engineers for over 100 years. A designed experiment is a systematic approach where people manipulate variables in a controlled setting to determine their effects on an outcome of interest. It involves carefully planning and controlling the conditions of the experiment to ensure reliable and valid results. Analysis of the resultant data has traditionally been done with graphical analysis and Multiple Linear Regression.

Machine learning is a field of artificial intelligence that involves developing algorithms and models to enable computers to learn and make predictions or decisions without explicit programming instructions. Typically, we work with data that has not necessarily been collected systematically. Recent studies indicate we can now blend the power of systematic data collection of design of experiments with machine learning algorithms so as to create a powerful hybrid approach to prediction and optimization.

Brief Biography: Bob has trained thousands of students in Design of Experiments, Design for Six Sigma, Lean Six Sigma, Machine Learning, and Process Validation. I have consulted with numerous companies in the areas of Reliability, Machine Learning, Data Mining, Rule-based logic, Design control, and Process Validation. Have worked with executive teams supporting corporate level improvement deployments with several organizations. He has published several books including: *Understanding Industrial Designed Experiments*, *Design for Six Sigma*, *Straight Talk on Designing Experiments*, *Experimental Design for Injection Molding and so on*. He is an Adjunct Professor at Drexel University, University of Washington, University of Colorado, and University of Phoenix.

7. Seventh Keynote Speaker: Mr James Dwan, CEO of Catalyst Consulting, UK

Title: Unleashing the Digital Avengers: Assembling Tribes to Revolutionise Operational Excellence and Value Stream Delivery

Synopsis:



In 'Unleashing the Digital Avengers,' the keynote explores how methodologies like Agile, Lean, and Lean Six Sigma often operate in isolation, akin to superheroes confined to their own comic books. This siloed approach leads to inefficiencies in digital and operational expenditure. The speech will draw parallels with the Avengers, urging companies to assemble their own superhero team by integrating these 'tribes.' By focusing on customer needs and fostering collaboration, organisations can break down barriers, revolutionize value stream delivery, and maximize operational efficiency. The talk will combine real-world insights with the engaging metaphor to inspire attendees to transform their approach to digital innovation and

operational expenditure.

Biography: James is CEO of Catalyst and a Business Agility, Strategy Development, and Lean Six Sigma specialist with over 20 years of experience. As an Agilist in the early noughties, James began exploring Lean alongside his day job as a Software Developer across multiple business settings including Manufacturing, Sales, Technical Service, and Finance culminating in him heading up Strategy Deployment for a global business. Today he works as a valued consultant and mentor for several high-profile organisations across multiple sectors including financial services, central government, medical supplies, retail, and local government. His innovative work using Agile techniques to accelerate process improvement initiatives is receiving rave reviews.