

# Friday, August 11<sup>th</sup> – Lean Systems Summit

The *Lean Systems Summit* highlights Keynote Speakers and 15 learning sessions across healthcare, services, manufacturing, government, and other sectors on how Lean leaders and practitioners are using Lean continuous improvement to change their culture, improve their way of doing business, and not only survive but thrive.

7:00AM-8:00AM	Registration, Networking, Continental Breakfast				
:00AM-8:15AM	Welcome: Patricia Wardwell, Director Continuous Improvement, Americas, Watts Water				
8:15AM-9:00AM	Opening Keynote: Alan G. Robinson, Lean Champion/Educator/Author ( <i>Ideas are Free &amp; The Idea-Driven Organization</i> )				
9:00AM-9:15AM	Transition to Learning Sessions				
Room	Cumberland	York	Kennebec-Lincoln	Oxford	Somerset
9:15AM-10:30AM	A1: That's Not Lean !	A2: Creating Systemic Change Through Continuous Process Improvement	A3: Lean Healthcare Design: Old Wine in New Casks. Avoiding Broken Systems in Shiny Spaces	A4: Leadersights: Leader Development for an Uncertain Future	A5: Are we there yet? History and Lessons Learned by the City of Fredericton on their Journey to Lean
10:30AM-10:45AM	Break - Change Learning Sessions				
10:45AM-Noon	B1: The Cost of Belonging—Ongoing improvement can happen only if one owns their process	B2: Why Hoshin Kanri (Policy Deployment) is Critical in Deploying a True Company-Wide Strategy of Excellence	B3: Barriers to Reducing Variance in Hospitals: Stories from the Frontlines of Healthcare	B4: How to Engage Front-Line Managers in Lean Daily Management System	B5: Getting Lean: From 0 to 80+ in 18 Months: Adoption of Lean at the Maine Public Employees Retirement System
Noon-1:00PM	Lunch (provided)				
1:00PM-1:45PM	Afternoon Keynote: Paul Manikas, Industry Solutions Executive, Microsoft				
1:45PM-2:00PM	Break - Transition to Learning Sessions				
2:00PM-3:15PM	C1: Big Data; Little Information	C2: Situational Leadership	C3: Improving Patient Experience	C4: The Integration of Lean and Safety - Is It Possible or Do They Conflict?	C5: How Ohio is Using Lean Six Sigma to Power Improvement
3:15PM-3:30PM	Break - Refreshments				
3:30PM-4:15PM	Closing Keynote: Cheryl Jekiel, CEO, Lean Leadership Resource Center ( <i>Lean HR</i> )				
4:15PM-4:30PM	Wrap-Up -- Next Steps				
See you again next year !					

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# Learning Session Descriptions

## 9:15 AM – 10:30 AM

### **A1: That's Not Lean!**

Jason Dix, Continuous Improvement Manager, Geiger Group

As Lean practitioners, we have all heard “That’s not Lean” more times than we can count. This simplistic, superficial exclamation has become a running joke amongst skeptics.

So, how do we turn a negative experience into a teachable moment? We will all look at immediate countermeasures to open the minds of your future Lean champions.

This learning session will look at common restraining factors to Lean implementation and countermeasures to dispel skepticism and unconstructive criticism. It will identify actions that can be taken to reduce friction with Lean implementation and how to create teachable moments.

You will learn basic disarming tools, common disarming phrases, and in-the-moment root cause analysis techniques, such as 5 Whys. You will also learn specific questions that can be used to enable the shift of thinking from traditional methods to customer focus and Lean methodology. It can be difficult to gain the buy-in of everyone. Attitude is contagious -- opening the minds of your key players will be critical to success.

We will also look at some of the common fears associated with standard work, idea generation, and A3 thinking (PDCA).

You will learn how to --

- Solidify customer focus concepts,
- Use in-the-moment root cause analysis tools, and
- Employ effective techniques to create teachable moments.

This session will provide tools for diffusing conflict. It will give you a better sense on how to push forward through Lean start-up.

### **Jason Dix**

Continuous Improvement Manager, Geiger Group

Jason Dix is the Continuous Improvement Manager for the Geiger Group. In this role Jason has continued the development of Geiger’s robust internal continuous improvement certification program.

He is responsible for Lean training and the continued education of Lean concepts for Geiger personnel. Jason serves as facilitator and project manager for Kaizen events and is the chief administrator of Geiger's Idea Generation program.

Jason has worked to build GeigerGroup's reputation within the community by serving as a guest lecturer at the University of Southern Maine's Lewiston-Auburn College campus. Jason holds his Lean Six Sigma Yellow belt and is currently working on his B.S. in Industrial Management.

## **A2: Creating Systemic Change Through Continuous Process Improvement**

LtCol. Ted Sturgeon, USMC (Ret.), Program Director, Institute for Defense and Business  
Deborah R. Manzo, Ph. D., CCLSSBB, NBCT, ISO Auditor, Continuous Improvement  
Program  
Director, North Carolina State University

The overall objective of this session is to help you effectively guide and support teams engaged in a process improvement project, intended to help your organization perform better, by using continuous process improvement methodologies and tools.

The session provides a retrospective, contemporary, and prospective examination of the organizational leaders creating systemic change by using continuous improvement approaches. It investigates both the management and leadership of successful continuous improvement projects. As such, this session, designed for leaders and others preparing for organizational change, innovation, and sustainability, requires critical thought and systematic reflection. You will be introduced to various concepts centered on planning change projects and ensuring continuation of effective change.

It will also discuss process improvement methods and tools, CPI deployment methodologies, and management practices from both public and private sector perspectives, as well as the role of senior leaders in leading and managing CPI deployment and implementation strategies. It will share best practices from organizations that have implemented process improvement strategies and discuss deployment and implementation strategies, lessons learned, and practices to facilitate sharing, partnering, and understanding.

After attending, you will have learned how to:

- Communicate using Lean and Six Sigma concepts.
- Relate Lean and Six Sigma concepts to the overall business objective.
- Think about your work as a process, with inputs that determine the output.
- Use the lean tools and the five-step DMAIC model to improve processes.

## **LtCol Arthur T. “Ted” Sturgeon Jr.**

USMC (Ret.)

Program Director, Institute for Defense and Business

Ted Sturgeon is a Program Director for the Institute for Defense and Business, a role he has filled since joining the Institute in August of 2007. Ted directs the Depot Arsenal Executive Leadership Program, LOGTECH Advanced, and the Log21 program. He has also completed extensive work on the Military Vehicle High Performance Capabilities Project, the development and management of the IDB website and the Lean and Six Sigma Champions Certification with North Carolina State University, as well as numerous other IDB activities and projects.

Ted has a Bachelor of Science in Mechanical Engineering Technology from Southern Polytechnic State University and a Master of Science in Management from Troy State University. Ted’s military schools include F/A-18 Weapons and Tactics Instructor School, Command and Staff College, and Amphibious Warfare School.

Ted served 22 years as a Marine Aviator flying the F/A-18 and F-5 aircraft ultimately serving as the Commanding Officer of Marine Fighter Training Squadron 401, the Marine Corps only professional adversary squadron from 2002-2004. During his military flying career, he served four tours at Marine Corps Air Station Beaufort, South Carolina in Marine Fighter Attack Squadrons; 251, 312, 115, and 122 with three deployments to the Western Pacific, a Carrier deployment aboard the USS Theodore Roosevelt, and numerous deployments around the United States.

Ted’s non-flying military assignments included tours as a Forward Air Controller with 1st Battalion, 2nd Marine Regiment assigned to the 24th Marine Expeditionary Unit, aboard the USS Wasp, F/A-18 Class Desk Officer for Commander Naval Aircraft Atlantic Fleet, where he managed Phased Depot Maintenance and aircraft modifications of the Atlantic Fleet’s F/A-18 inventory.

His last active tour of duty was the Operations Officer for the Marine Air Ground Task Force Staff Training Program in Quantico, Virginia where he managed multiple academic programs for Marine Corps University and exercises for deploying forces to OIF and OEF.

Ted retired as a Lieutenant Colonel in October of 2007 and his operational experience includes: Operations; Restore Hope in Somalia, Deny Flight, Deliberate Force, Sharp guard in Bosnia – Herzegovina, and Southern Watch in the Arabian Gulf.

## **Deborah Rose Manzo, Ph.D.**

Continuous Improvement Program Director

North Carolina State University

Dr. Manzo, CLSSBB, NBCT, ISO Auditor, manages the IES e-learning program at North Carolina State University. She develops learning modules used by business and industry as well as professional development requirements for a variety of certifications. She also promotes performance excellence through her state and national work with the Baldrige Criteria for Performance Excellence.

She assists IES clients with custom designed learning activities delivered online for organizational leaders and employees and also provides direct consultation services and training in performance excellence in the areas of leadership, strategic planning, customer and market focus, workforce development, process and knowledge management, and analysis of results.

Deb serves on the Editorial Review Board for the ASQ Quality Management Journal and serves on various boards. She has been a National Baldrige Senior Examiner with the National Institute for Standards and Technology (NIST) since 2001.

She has 27 years of experience in developing adult learning modules focused on leadership and change management. Deb has extensive experience in K-12 educational administration and higher education. She has served as the Senior Director for Continuous Improvement and Professional Development for an organization with 14,000 employees. She also has experience in evaluation and research and has been a visiting professor with NCSU and UNC-Chapel Hill since 1999.

Deb is a master trainer in Baldrige Criteria for Performance Excellence, Quality Tools, Thinking Maps; Covey-7 Habits; Framework for Understanding Poverty; Professional Learning Communities; and Facilitative Leadership. She is a certified Six Sigma Black Belt. She received her doctorate from Columbia University in leadership and administration; her masters, B.S. and B.A. from Oklahoma State University; and a masters from NOVA Southeastern University.

### **A3: Lean Healthcare Design: Old Wine in New Casks. Avoiding Broken Systems in Shiny Spaces**

Isaac B. Mitchell, MBA, CPHQ, PMP, LSSBB, Director, Lean Continuous Improvement  
East Tennessee Children's Hospital

Featured in the book Lean Hospitals, East Tennessee Children's Hospital opened its' state-of-the-art patient- and family-centered care tower in November 2016. Join us to learn about how we integrated architectural and Lean process design over our journey over the past 5 years. Learn how we used our cross-functional team's clinical experience and critical thinking skills to design and deliver high value, effective, and efficient patient care.

Learn about --

1. Integrating Lean methodologies in designing healthcare facilities and processes, resulting in over \$1.3M in cost avoidance and savings.
2. Designing a patient and family-centered care tower that delivers high-value surgical care on one floor, provides private Neonatal Intensive Care Unit (NICU) rooms, and offers turnkey clinic space to serve the needs of pediatric patients across East Tennessee.
3. Improving processes to reduce patient wait time along with a reduce patient length-of-stay by 30%+, and
4. Improving OR on-time to starts 66%+ while improving patient throughput.

In 2012, East Tennessee Children's Hospital (ETCH) began to plan, design, and build a state-of-the-art patient and family centered care tower for clinics, surgery, and a Neonatal Intensive Care Unit

(NICU). In the past, the Surgery Department operated on multiple floors, had many constraints, excessive handoffs, duplicative information in multiple electronic medical records (EMR), and ineffective processes. This resulted in excessive wait times, long stays, unnecessary searching for needed information, and dissatisfied patients, families, staff, and providers. The previous NICU was an open bay design, where your child was seven feet away from the next child leading to very little privacy and a busy often times noisy environment. This opportunity was ripe for critical evaluation of the current operations to design improvement in the new space for our patients, families, and providers.

ETCH deployed cross-functional teams that included senior leaders, physicians, practices, employees, and family members working together utilizing the Lean 3P approach in the design, development, and implementation of effective, waste-free processes. Using layouts and models, teams determined space adjacencies requirements and tested/visualized/refined the design using full-size mockups in a warehouse. In addition, basic spreadsheet simulation modeling was also used to validate room capacity, predict staffing patterns and needs, along with patient flow throughout the day in the new space.

To help *sustain* performance gains, a management system focused on Lean continuous improvement was developed and implemented. Daily performance huddles were implemented to prepare for the day, review performance, hear front-line staff improvement ideas, and provide a forum to hear updates on staff lead projects. Key performance metrics were selected to track both process-based metrics and outcome-based metrics to better understand current performance, to understand our gap, to determine improvement focus areas and to implement the change and further evaluate continuous improvement initiatives to reach our future state goal of Ideal Patient Care for every patient every time they are in our care.

As a result of this work,

- ETCH exceeded many of its goals and created a culture to advance care through continuous improvement.
- The 3P design resulted in \$1.3M+ construction cost avoidance and validated space design that was functional and operational on day one.
- Process design work allowed staff to prepare a patient for surgery in only 41 minutes at 90%+ reliability, well under the 60-minute goal and down from our baseline at 1 hour and 34 minutes.
- By engaging our surgeons in a peer-driven approach, the team was able to smooth out the surgery schedule and patient arrival times to reduce the number of ORs required to meet patient demand from 9 to 6 which dramatically reduced both OR overhead at \$9/minute and labor cost.
- Additionally, this work has created a management system and dashboard focused on improving O.R. on-time starts from our baseline of 29%, to our current state of 58%, with our goal of 66%+.

Through comprehensive engagement of all parties in integrated architectural and process design, we have redesigned the care delivery model to take place on one floor, developed waste-free yet

customizable processes that are flexible to meet the unique needs of each patient and family, improved satisfaction, and reduced operating cost. Most importantly, East Tennessee Children's Hospital has developed an experience that will serve and exceed the needs of our community, our children, and our grandchildren.

## **Isaac B. Mitchell, MBA, CPHQ, PMP, LSSBB**

Director, Lean Continuous Improvement  
East Tennessee Children's Hospital

Isaac Mitchell has over fourteen years' experience driving change utilizing lean methodology in organizations ranging from automotive manufacturing, fiberglass boat production, machining job shops, and healthcare systems.

He is a full-time lean practitioner at East Tennessee Children's Hospital, a lecturer at the University of Tennessee's Department of Industrial and Systems Engineering, and an instructor for the Institute of Industrial and Systems Engineers.

He holds a Master of Business Administration from Xavier University and Bachelor of Science in Industrial Engineering from The University of Tennessee. Additionally, he holds a Lean Six Sigma Black Belt certification through the Institute of Industrial Engineers, a Project Management Professional (PMP)® certification through the Project Management Institute, is a Certified Professional in Healthcare Quality (CPHQ)® through the National Association for Healthcare Quality, and is a Diplomate (DSHS) in the Society for Health Systems.

He serves on the Board of Directors for the Institute of Industrial and System Engineer's Society for Health Systems, is the President-elect for the Tennessee Hospital Association's Society for Organizational Improvement, and sits on the Communications Committee for the American College of Healthcare Executives (ACHE) East Tennessee Health Executives Affiliation. His passion and focus is on training and implementing lean techniques that transform work cultures to improve healthcare processes and outcomes for patients and providers.

## **A4: Leadersights: Leader Development for an Uncertain Future**

David Veech, Senior Lecturer, Fisher College of Business, The Ohio State University  
CEO, D. Veech & Company, Inc.

Love, learn, let go. Three decisions. Three actions. Three habits. Together, these offer leaders insight (Leadersights) into the true nature of leadership and can create the type of workplace that can thrive in a demanding future.

If you are stuck in a culture of compliance where an increasingly frustrated workforce continues to rely too much on leaders to solve problems, this brief workshop may be just what you need to focus your leadership efforts. Learn how to create the structure necessary to engage leaders and people, driving new behavior and changing your culture. Learn how to build an effective leader

development system based on current research on change, leadership, group and team dynamics, job satisfaction, intrinsic motivation, psychological flow, and self-efficacy.

Create the kind of workplace where people love coming to work and where they become better thinkers, better leaders, and better teachers.

Regardless of the type of organization or the type of work, leaders have the responsibility of shaping the capability of the organization to handle the demands of the future. If we do a poor job of developing those leaders, it puts at risk the things we hold most important.

In this session we will discuss:

- Trends that are shaping the future.
- How we probably need to reshape our definition of lean to respond to the future.
- How thinking drives behavior and behavior drives culture.
- More about the Integral Leadership Model.
- The three macro leadership behaviors.
- The four focused coaching behaviors: Challenge, Support, Correct, and Encourage.
- Designing work for higher engagement and satisfaction.

The impact of this discussion of fundamental leader development skills is potentially enormous. You will leave with both concrete ideas to improve your existing programs, and ideas that should make you question everything about what you are doing now.

## David S. Veech

Senior Lecturer, Fisher College of Business, The Ohio State University  
CEO, D. Veech & Company, Inc.

David Veech works with people to make workplaces more fun, exciting, challenging, and interesting. Leaders can make or break this kind of workplace, so he spends a lot of time teaching people how to be more effective leaders.

He is the founder and CEO of D. Veech & Company, Inc. and Chief Learning Officer of Leadersights, non-profit organizations dedicated to creating learning organizations that improve the quality of life of people and communities, particularly through education and healthcare.

David is a Senior Lecturer in the Fisher College of Business at the Ohio State University (an internationally recognized leader in executive and lean management education), teaching as a core faculty member in the Master of Business Operational Excellence program. He is a senior consultant with Honsha and co-founder and strategic partner with the Institute for Lean Systems (ILS); both are international consulting firms.

He is the author of “Leadersights: Creating great leaders who create great workplaces (2017, CRC Press), “The C4 Process: Four Vital Steps to Better Work” (2011, Business Innovation Press, an imprint of Integrated Media Corp.) and “FirstLine: A team leader’s guide to lean thinking” (2005, PKI)



## **A5: Are we there yet? History and Lessons Learned by the City of Fredericton on their Journey to Lean**

Wade Kierstead, Manager, Innovation, Improvement, and Technology, City of Fredericton, New Brunswick, Canada

Nina McCarthy, Process Improvement Facilitator, Innovation, Improvement, and Technology Division, City of Fredericton, New Brunswick, Canada

Many organizations want to get into Continuous Improvement and Lean, and start out with great intentions. However, many hit the same hurdles – lack of engagement, miscommunication, and unclear goals. The City will provide its history and lessons learned in these areas.

The City of Fredericton is recognized as a leader in Continuous Improvement. You will hear an overview of the City's journey and, especially, what we would do differently starting over.

You will learn what has worked well and not well for the City, what we would do differently starting over, an overview of the various toolsets we use in our Continuous Improvement journey, and a general overview of our lessons learned. You will leave with points to ponder – and if starting out, evaluate your approach in different areas to avoid bumps along the way.

This session is for both people starting their lean journey or those who are not seeing the traction they would like to see. Applicable to all organizations, the session will help identify the issues we found and what we did to correct them.

### **Wade Kierstead**

Manager, Innovation, Improvement, and Technology,  
City of Fredericton, New Brunswick, Canada

Wade Kierstead is a Lean Six Sigma Black Belt and leads fifty-three belts on the City of Fredericton's journey of Continuous Improvement. With experience in Staffing to Demand, Daily Management, Lean Six Sigma, and other methods and tools, the Continuous Improvement team is redesigning how the City operates from the ground up.

With Fredericton as a moving force, the second *Canadian Public Sector Lean Summit* was held this past April in Fredericton and was quite a success with broad participation, including from the private sector.

Wade's journey with the City spans twenty-one years and includes being Supervisor of IT Infrastructure, Systems Architect for the City of Fredericton's fibre and wireless carrier e-Novations, a Lean coach and champion, and now Manager of Improvement and Innovation. Previously, Wade worked with Unisys in New Brunswick, and IBM Canada in Toronto, Ontario.

## Nina McCarthy

Process Improvement Facilitator, Innovation, Improvement, and Technology Division  
City of Fredericton, New Brunswick, Canada

Nina McCarthy is a Black Belt in Lean Six Sigma with the City of Fredericton, New Brunswick, Canada and is currently seconded to the Innovation, Improvement and Technology Division as a Process Improvement Facilitator.

Her primary work is with the Fredericton Fire Department where she is a Lieutenant with the Fire Prevention and Investigation Division. She has been with the City for eighteen years and prior to working as an investigator, spent six years as a firefighter in the Suppression Division.

Nina has a BA in Criminology and is currently working on her MPhil in Policy Studies.

## 10:45 AM – Noon

### **B1: The Cost of Belonging — Ongoing Improvement Can Happen Only If One Owns The Process**

Marcel Gagne, Business Ownership Conversion Specialist,  
Cooperative Development Institute

Any deeper dive towards understanding that with ‘ownership’ comes two very significant and different aspects of that ownership:

- rewards (which we all seek), and
- responsibility (which many are not prepared to embrace or understand).

In this creative economy, an appreciation for and the implementation (or ‘ownership’) of Continuous Improvement is crucial for sustainability and on-going success.

How is this accomplished?- By ownership! Ownership of issues that require constant improvement, being customer-centric and driven by the voice of the customer, elimination of waste (the benign thief that robs from all), and idea generation that must come from all and from within.

So, in this collaborative world of embracing LEAN, all must fully understand the paradigm of “this organization belongs to all of you; and you belong to it”! All this begins by owning your job.

This session will highlight the principles that support the empowering of the individual by teaching them skills and establishing a supportive environment of respect for people.

Lean fundamentally leads to owning one’s job.

Owners of organizations, perhaps arguably, have a high commitment to seeing their organizations survive in the short term and prosper in the long term. Many leaders have adopted Lean systems thinking because it has proven to be an effective business strategy to meet this goal.

Yet, what Lean leaders struggle with most often is sustaining a Lean initiative. To sustain this requires a long-term commitment to the values underlying the effort.

The values underlying Lean - trust, respect for people, long-term thinking, continuous improvement, valuing front-line staff as an asset to name a few – are all values that any owner can see as relevant to sustaining their business. Why? Because they give employees a “stake” in the current and future state of the company. The investment in employees represents ‘a cost of belonging’ to the owner/company but in the long-term creates for employees a sense of ‘ownership’ of their jobs and of the organization, which is a key strategy for sustaining Lean initiatives and meeting goals and achieving desired outcomes.

This is, for example, especially clear in Cooperatives, where an organization or business is owned and run by equal owners, in a democratic fashion, each with one and only one equal share and vote. The issue of governance mandated by a member-driven board, operations driven by member managers, and work culture driven by all members and other employees represents a classic platform for where the values of ownership and Lean explicitly come together. Ultimately employees taking ownership of their jobs is what sustains the organization. And, bosses/owners/managers, not just other staff, need to understand this dynamic as well:

You will –

- Learn and hopefully become engaged in the broad Human Resource aspect of complete ownership - from owning one’s job to a full share in the ownership of the business organization’s goals.
- Understand the issue of Lean systems thinking and the important role it plays in enabling employees to take ownership not only of their job but, as in cooperative, the organization as well.
- Understand and fully utilize continuous System and Process Improvement coupled with respect for people.

## Marcel Gagne

Business Ownership Conversion Specialist, Cooperative Development Institute

Marcel Gagne is a Business Ownership Conversion Specialist with the Cooperative Development Institute, a New England non-profit. CDI assists and supports a Cooperative Economy with locally grown food, affordable housing/ownership, and business ownership solutions to existing businesses into co-ops through employee and community buy-outs. Business Ownership Services can assist with succession planning strategies, and/or business expansion solutions. CDI can also help with financial, feasibility, market, and business planning.

Marcel has an extensive background in workforce development and has also worked in community & economic development for a decade with a nationally known organization, CEI, as well as with the State of Maine government.

He has a training background in customer service, interviewing skills, supervisory implementation & coaching, and is a qualified Myers-Briggs' Type Indicator facilitator. He also is certified as a Continuous Improvement Practitioner (CI-P) through Bend the Curve. He is heavily involved in the Institute for Continuous Improvement (ICI-LA) at the University of Southern Maine's Lewiston/Auburn College and is serving as a technical advisor in its undergraduate Certificate Program in LEAN & Process Improvement.

Marcel is a notably active and engaging member of his larger community, including –

- Current Chair of Community Advisory Board at Lewiston/Auburn College-Univ. of Southern Maine);
- Board of Directors, Treasurer @ Community Credit Union Lewiston/Auburn/Turner;
- Lewiston-Auburn LA Metro Chamber of Commerce: Board of Directors, Exec. Board, Ambassador, Business Advocacy Committee; and Chair-elect Workforce Dev. /Educ. Committee.
- Past Treasurer, Vice Chair, and Chair of Empower Lewiston.

## **B2: Why Hoshin Kanri (Policy Deployment) is Critical in Deploying a True Company-Wide Strategy of Excellence**

Catherine Converset, President, Productivity Innovation and  
Executive Partner, Productivity Inc.

Transforming an organization into one that is operationally excellent requires a long-term customer-focused, company-wide strategy. Management committees must define and continuously refine the strategic drivers of the organization and deploy them to ensure everyone is aligned and working toward the same goal. Doing so requires the establishment of a framework known as a Lean Management System.

Central to a Lean Management system is *Hoshin Kanri*. Hoshin Kanri (policy deployment) is a method for ensuring that an organization's strategic goals drive progress and action at every level of the organization. The fundamental purposes of Hoshin Kanri in a Lean enterprise is to focus a company's improvement efforts on a small number of very well-defined initiatives to align and mobilize SBU's, plants, departments, and all supporting personnel in the transformation process.

In this session, you will be introduced to the importance of Hoshin Kanri, the proven business renewal planning and deployment process, which allows you to incorporate your strategic priorities into daily work at every level in your organization. The need for enterprise-wide waste elimination will be detailed with a review and discussion of the key performance indicators, targets to improve, and countermeasures that will ensure you remain on course and that your improvement projects are meeting your strategic objectives.

You will learn to:

- Understand the cornerstones of a Lean Management System
- Learn a systematic approach to the implementation of Lean
- The key concepts and principles of Hoshin Kanri (policy deployment)
- The 5 steps of policy deployment and how to use the X-Matrix
- The 4-level performance review system ensuring success

## Catherine Converset

President, Productivity Innovation and Executive Partner, Productivity Inc.

Upon graduation from the Ecole Supérieure de Commerce de Paris (ECSP), Ms. Converset successfully held positions within the PECHINEY group in Italy and France, becoming worldwide export manager of aluminium products for Pechiney Rhenalu and then director of packaging development for the Pechiney Group. After ten years at Pechiney, she spent five years managing a plastic packaging activity in Italy.

Ms. Converset joined Productivity in 1994. Following Lean and Six Sigma training in the USA, she became partner of Productivity in France, then in Europe and the USA. She is now President of Productivity Innovation Europe and Executive Partner of Productivity Inc.

Her areas of expertise include:

- Lean training and support for Executive and Management teams, with vision, objective and roadmap definition.
- Policy Deployment (Hoshin Kanri).
- Lean management system implementation strategy.
- Management and leadership training.
- Lean in pharmaceutical environment (manufacturing, CMC&E) and R&D.

Ms. Converset has developed a deep understanding and practical experience in the execution of Lean transformation in all business environments. She is experienced in guiding Executive Committees in defining operational and strategic objectives and building management and organizational systems. She has acquired extensive experience implementing Lean in pharmaceutical, process, and R&D environments. Fluent in French, English and Italian, she also teaches Lean Management in Service Industries at the Center for Operational Excellence at the Ohio State University.

### **B3: Barriers to Reducing Variance in Hospitals: Stories from the Frontlines of Healthcare**

Dr. Lawrence Crystal, Podiatrist/Consultant, The Aroostook Medical Center

Reducing variance has been shown to result in increased quality of goods and services across a wide range of business settings. The health care industry specifically hospitals continue to lag

behind their manufacturing and service industry counterparts in reducing variance leading to improvements in quality. In fact, medical errors are now identified as the third leading cause of death in the United States. This session, through a series of stories, will review barriers which exist in hospitals preventing them from achieving quality achieved in other business sectors. Its goal is to empower you all to be advocates for improved health care.

The essence of lean is that it fosters a culture which encourages all employees to continually look for improvement. Peter Drucker stated that “health care is the most difficult and chaotic industry to manage today.” Hospitals are hierarchical in nature with multiple silos of care. The greatest challenge for lean to be successful in hospitals is for leadership to adopt the culture of lean which encourages everyone involved in the patient’s care and to place the patient first.

The front lines of healthcare will reveal the challenges patients face when entering the health care system. While the manufacturing sector was making great strides integrating quality into products and services during the last half of the twentieth century, the healthcare sector continued on as if society was not changing. Dr. Ernest Codman, who was instrumental in the formation of the American College of Surgeons, was ostracized by the medical profession for his proposal to track surgical outcomes in an effort to improve care. He indicated in the early 1900’s that surgeons and hospital administrators acted like ostriches with their heads in the sand; they never studied end results, but were content as long as they produced the “golden eggs.”

Dr. Codman’s observation nearly a century ago that quality improvement would not occur without payment reform is now being realized as medicine is now transitioning from a fee for service model with little regard to the quality of outcomes to an evidence-based model tying outcomes to payment

While barriers exist to implementation of lean processes in hospitals, there have been examples of lean processes which improved patient outcomes and decreased costs. One example is the State of Michigan implementation in 2003 of John Hopkins five-step procedure for reducing central line infections from 3 per 1000 catheter hours to virtually none. It is estimated that this process if implemented nationwide could significantly reduce the estimated 80,000 catheter infections which cause up to 28,000 deaths and reduce the estimated \$2.3 billion in costs attributed to these infections annually. Cultural change was key to the success of this checklist which included empowering nurses to stop the procedure if the checklist was not followed.

## **Dr. Lawrence Crystal**

Podiatrist/Consultant, The Aroostook Medical Center

Dr. Lawrence Crystal has been practicing podiatric medicine in rural northern Maine since 1980. He has provided services to a diverse set of medical organizations including The Aroostook Medical Center (TAMC) where he is on the active medical staff, four Federally Qualified Rural Health Centers, and two Tribal Health Centers. He is Board certified in Podiatric Medicine by the American Board of Podiatric Medicine, Board Certified in Quality Assurance by the American Board of Quality Assurance and Utilization Review Physicians, and is an American Health Information Management certified physician coder.

He has served as Chair of the Maine Board of Podiatric Medical Licensure, Chief of the Medical Staff at TAMC, and Chair of TAMC's Performance Improvement Council where he was a leader in promoting patient safety. He is a content expert for the National Board of Podiatric Medical Examiners and has served on the American Board of Podiatric Medicine's board certification exam writing committee.

A graduate of the Maine-based Daniel Hanley Center for Health Leadership and a McAfee Fellow of the Center's Physician Executive Leadership Institute, he has lectured on quality of care and medical staff issues for the New Zealand Podiatry Association, the World Congress of Podiatrists, the Indian Health Service Nashville Office, and many of Maine's healthcare organizations.

## **B4: How to Engage Front-Line Managers in a Lean Daily Management System**

Jordan Peck, Senior Director, Center for Performance Improvement (CPI), MaineHealth  
Ghassan Saleh, Program Manager of Value Improvement, MaineHealth Center for Performance Improvement

The MaineHealth Lean Daily Management System is a system wide approach that focuses on its ability to push for Culture Shift in the way it manages day-to-day workflows in Healthcare. MaineHealth uses a very structured process in implementing Lean Daily Management which, effectively and efficiently, most importantly involves the vast majority of its employees. However; front line managers gave signals that a great structure to engage front line staff and senior managers was created but not necessarily the front line managers. The Center listened to the feedback and worked hard on creating a structure to also clarify and standardize the role of front-line managers.

Depending on the design of your Lean Daily Management (LDM) System, different people end up with different levels of engagement. Staff typically receive an official 3-day training and are empowered to choose their own process improvement goals, but are using standard documents to guide them through (the letter sheet, Run Chart, and Pareto Chart).

In our MaineHealth LDM, senior leaders take gemba walks daily in a standard and structured process. They walk in specific paths and stop in every unit on that path for about 3 minutes to hear front-line staff present their Gemba Boards (KPI boards). Front-line staff feel a great deal of ownership and authorship and are pleased to see their leaders every day.

While senior leaders feel very excited on those Gemba walks -- getting to know the context of the data and the root causes behind the misses and engaging front line people by asking them, "What can we do for you today?"

However front-line and middle managers often felt left out. Jordan Peck and Ghassan Saleh will discuss the recommendations of a task force that did a great deal of work to re-engage the managers in the process. Come to learn about our experience engaging managers in LDM.

You will learn about --

1. MaineHealth's OpEx model.
2. The core components of our lean daily management system.
3. The structured approach MaineHealth has adopted to engage front-line managers.

## Jordan Peck

Senior Director, Center for Performance Improvement (CPI), MaineHealth

Jordan Peck is the Senior Director of the Center for Performance Improvement (CPI) for MaineHealth. He manages a team of internal consultants, project managers, management engineers, quality and process improvement experts. CPI is also responsible for the roll out of MaineHealth "Operational Excellence," a culture of an improvement-based management system.

Jordan has a PhD in Engineering Systems from MIT with a focus in Healthcare Systems Engineering and Lean Enterprise Transformation. Previously, Jordan served as a Staff engineer with the Veterans Administration and as an Adjunct Clinical Professor of Healthcare Operations Management at the Boston University School of Public Health.

## Ghassan Saleh

Program Manager of Value Improvement  
Center for Performance Improvement (CPI), MaineHealth

Ghassan Saleh is the Program Manager of Value Improvement in the MaineHealth Center for Performance Improvement. He manages a team of Performance Improvement Specialists and is responsible for a program that is tasked with rolling out Operational Excellence to everyone in the extensive MaineHealth network.

Ghassan has a Master of Arts in Health Management, Planning and Policy, a post-graduate Diploma in Hospitals Administration, as well as Practice Dentistry as a general dental Practitioner for about 8 years. He has served as a Lean Specialist, Senior Advisor, trainer, and trainer manager. While with the State of Maine government, Ghassan completed training and continuing education as a Continuous Improvement Practitioner through the Bend the Curve program. Ghassan also teaches Lean Healthcare Supply Chain Management in Thomas College in Waterville as an Adjunct Instructor.

## **B5: Getting Lean - From 0 to 80+ in 18 Months: Adoption of Lean at the Maine Public Employees Retirement System**

Valerie E. Scott, Associate Deputy Director for Special Projects. Maine Public Employees Retirement System (MainePERS).

David Jones, Retirement Services Specialist, MainePERS

Stacey Beckim, Administrative Assistant, MainePERS

This session will share the MainePERS Lean adoption process, process improvement gains, and lessons learned along the way to sustainable system-wide Lean practice.

The Maine Public Employees Retirement System (MainePERS), a quasi-governmental agency, believed its business processes would benefit from a structured approach to business process re-engineering. After careful consideration, MainePERS selected the Lean approach. It then sought a partner to help the organization learn and implement the Lean for process re-engineering. In October 2015, MainePERS began the process of Lean adoption. Over the course of the next 18-months Staff was provided training, coaching, and the opportunity for hands-on Lean process improvement experiences. This was done in a manner supportive of MainePERS core customer service philosophy, aligned with both its guiding principles and mission. During this period, with partners from the Orion Development Group, and participation from all levels of the organization (>80%), MainePERS conducted Kaizen events, held introductory training for the organization as a whole, and hosted two rounds of green belt training. Working toward sustainable practice MainePERS has supported employees in the achievement of Lean Green Belt status, established a Lean Oversight Council, and is now independently conducting Lean process improvement efforts.

To date, more than 80 of MainePERS' 108 staff have participated directly in one or more process improvement events. Thirteen individuals completed Green Belt process improvement projects. Along the journey, the System held Kaizen events--all aligned with MainePERS strategic objectives and anchored by its Guiding Principles. A Lean Oversight Council was established for continued governance and operates to review & recommend Kaizen events and support training.

None of this would have been possible without the System's all-in commitment to the Lean philosophy and the commitment of the Senior Management Team who sponsored and participated directly in these events. Empowering front-line staff to identify and implement improvements is a powerful way to build organizational knowledge and reshape cultural norms - even in long established organizations.

### **Valerie E. Scott**

Associate Deputy Director for Special Projects  
Maine Public Employees Retirement System (MainePERS)

Since joining MainePERS in 2015, Ms. Scott has led the system's Lean adoption efforts and in doing so obtained her Lean Green Belt. She believes that process improvement and change management are keys to the healthy evolution of an organization. Enabling that growth and development in a public sector setting is her current focus.

She joined MainePERS after 30 years in basic research, research administration, and technical service operations. For the last 20 years she served as the Senior Director of Scientific Services at the Jackson Laboratory (Bar Harbor, ME and Farmington, CT). Scott has served on numerous national research related the boards including the Association of Independent Research Institutes (AIRI.org) and was an active member of the Association of Biomolecular Resource Facilities, Northeast Regional Life Science Core Directors Association and National Cancer Center Administrators Forum.

As a resident of Bar Harbor she gained public sector experience, serving three terms as an elected member of the town's Warrant Committee and two terms on the Bar Harbor Town Council (Chair 2- yrs). She also served on the Board of the Bar Harbor Chamber of Commerce. Ms. Scott holds a Bachelors of Science in Microbiology degree (University of Illinois, Urbana-Champaign, IL).

## David Jones

Retirement Services Specialist  
Maine Public Employees Retirement System (MainePERS)

David Jones is the Retirement Services Specialist for MainePERS Teacher retirement plan.

David, who holds a BA in Political Science with a minor in Financial Accounting from the University of Maine, joined MainePERS in 2013. He currently supervises staff who assist teacher retirees, employers, and members in planning for retirement.

Additionally, he serves teachers across the state by providing information about their MainePERS benefits, assisting them in planning for retirement, and by ensuring their benefits are calculated correctly.

David received his Green Belt in February of 2017 after completing a project focused on streamlining the process of determining member eligibility and documentation. He continues to apply his Lean learning as an active Kaizen co-facilitator.

## Stacey Beckim

Administrative Assistant  
Maine Public Employees Retirement System (MainePERS)

Stacey has been employed by the Maine Public Employees Retirement System for 13 years. She is currently working in the Executive Department as an Administrative Assistant of Special Projects.

Stacey was one of the first employees to earn her Green Belt at MainePERS. Her project focused on establishing data monitoring metrics for the collection of benefit overpayments.

She is an active Kaizen co-facilitator and serves on the agency's Lean Oversight Council and Fundraising Committees.

## 2:00 PM – 3:15 PM

### C1: Big Data; Little Information

Raymond G. Taylor, Manager, Polymetrics LLC

Rapid advances in computing technology and the development of inexpensive mass storage devices have encouraged the emergence of specialized databases for Big Data. Much is being made of the implied capacities of Spark, Hadoop, MapReduce, Hive cloud storage, and other newcomers to the world of massive data infrastructure. As megabytes once gave way to gigabytes, terabytes now give way to petabytes, with more and more data, faster and faster processing -- but what is happening on the information front?

Ask yourself--

1. Is the kind of data analytics needed by decision-makers keeping up with the rapid development of “big” data technology?
2. Do decision makers have enough information to ask the “right” questions?

➤ Remember: Data needs to inform questions before it yields answers. It is a discovery process.

As you may have already experienced, information discovery is key to truly effective Lean continuous improvement implementation and sustainment. In this learning session, you will learn an approach to information discovery that does not have as a prerequisite the formation of the “right question.”

The “simple” extraction of summaries from data is of little help and is burdened by their static nature. Infographics, such as Tableau, are a step in the right direction and they do help with the problem of comprehension, but they only speak to the questions that their designers had anticipated.

The session will demonstrate a machine learning approach to data mining with a remarkably flexible graphics overlay (Orange Data Mining developed by the Bioinformatics Laboratory of the Faculty of Computer and Information Science at University of Lubljana). Watching this work is entertaining and informative.

This analytic method can be applied to a wide range of Lean-approaches and topics. For example, given the complex trade-offs among quality, cost, and delivery, what is the ideal allocation of limited resources among these competing demand factors? There may be added cost to generating additional quality, but the non-linear relationship between these variables suggests that there is an optimal point where quality is going to be improved by only a very small amount by spending the next dollar. The same is true for the relationship between cost and delivery, and between quality and delivery.

The Orange methodology allows for any one of these variables to be moved on a “slider” while observing both the direction and the amount by which the others change. All of this dynamic

behaviour is extracted directly from the data and not from some prior calculus.

The example given above uses only three variables. However, there is no limit to the number of variables that can be explored simultaneously if enough reliable data is available to the system.

So ask: Are the kinds of data analytics needed by decision makers keeping up with the rapid deployment of “big data” technology?

*Some would say “yes” and would point to the new tools for the extraction of answers to complex questions, all of which happens at scale and in near time. But what if the decision makers do not have enough information to ask the right questions? After all, data needs to inform questions before it can yield answers.*

From this session, you will gain insight into the ways information can be extracted from data without the need to first formulate all the right questions. Likewise, you will have a better understanding of how questions can be informed by dynamic real-time machine learning (e.g., neural networks, Bayesian analysis, k-Nearest Neighbour, Interactive Trees, etc.).

A link to the free, open source software demonstrated will be provided for those who wish to explore this further (Orange Data Mining, Version 3.3, 2016).

## Raymond G. Taylor

Manager, Polymetrics LLC

Dr. Raymond G. Taylor has had a long career as a teacher and pastor. His acquisition of formal learning has spanned six decades and has led to seven university degrees and numerous honors. He has served as a full professor for 25 years in a major American university. For nine years he was a Superintendent of Schools in Maine.

Raymond’s academic focus is on operations research in the public sector. He has authored books and many scientific articles. In 1989 he founded OR/Ed Laboratories which grew rapidly both in its outreach and influence. In 1998-99 Raymond was honored by the International Forum for Operations Research and Management Science by the granting of its Edelman Award and in 2007 by the Edelman Laureate. In 2011 he received the Intellectual Benefits to Society Award from Mensa.

In 2001 he enjoyed a few months of retirement but soon went back to NCSU to teach doctoral level courses in statistics and research. During the ten years that followed he was, for three years, also the Rector of St. George’s Anglican Church, Malaga, Spain. 2011 marked his firm commitment to retire (again).

However, later in 2011 he became the Director of Data Analytics, State of Maine, Department of Labor and later for the Department of Health and Human Services. He continued that relationship as a State employee and as a contractor through February of 2017.

## C2: Situational Leadership

Robert Burke, COO & Executive Director, Value Innovation Partners &  
President, AME-Northeast Region

All of us, of course, in different ways and different times, are leaders.

Do you think Leadership requires --

Different strokes for different folks?

Different strokes for the same folks?

Situational Leadership, developed by Hersey and Blanchard based on University of Michigan and Ohio State studies during and after WWII, asserts that leader behavior has to be adjusted to match specific situations. It identifies four different situations and the appropriate leader behaviors for each and is supported by extensive research.

In this session, you will learn about –

- The four Leadership behavior styles.
- The Situational Leadership Matrix.
- How to determine the style of leadership to use for a specific person(s) in a specific task (how to do the diagnosis.) What questions to ask.
- The components of Readiness and relationship to leadership.
- The 20 Keys Lean Leadership.

You will also learn about how to create a culture of empowerment and accountability and Lean:

- Understand what is and isn't empowerment and accountability and their roles.
- How to create a culture of empowerment, its elements, and what is needed for it to work.
- What an empowering organization is.
- The Freedom Scale and how it relates to situational leadership.
- The relationship of Empowerment and Accountability.

## Robert Burke

COO & Executive Director, Value Innovation Partners &  
President, AME-Northeast Region

Robert Burke is a Partner and Executive Director of Value Innovation Partners, Ltd. He is a certified Six Sigma Black Belt, Lean Sensei, CPIM from the Association of Operations Excellence (APICS), and holds an ISO 9000 Assessor certificate. He is the President of the Association for Manufacturing Excellence-Northeast Region. He has a B.S. in Business Administration.

Bob has held positions ranging from Materials Director, Production and Inventory Control Manager, Master Planner and Machinist. He has a broad back-ground and experience in many different industries such as: Pharmaceutical, Medical Device, Packaging, Heavy Equipment, Aerospace and Defense, Chemical, Printing, Service, Stamping, and Specialty/ Engineered-To-Order Manufacturing.

Bob provides training and implementation methods in areas of Lean Sigma Manufacturing, Pharmacovigilance, Supply Chain Management, Kaizen, Vendor Man-aged Inventory, Logistics Planning, and Supplier Certification.

He has co-authored dozens of articles published in PharmaChem Magazine (an international Pharma Journal) on the subject of Lean operations and an article published in the AME's Target. He has presented Lean Sigma work-shops and sessions at both national and international conferences: AME, IIE Lean, ASQ Lean Sigma, SHS, NAM, Kavaq, MESW, Quality Expo. He is a member of AME, IIE, ASQ and APICS.

### **C3: Improving Patient Experience through the Hard Work of Incremental Workflow Transformation**

Catherine Palleschi, Director Cardiology Services, Maine Medical Center  
Suneela Nayak, Director Operational Excellence, Maine Medical Center

Healthcare reimbursement, public reporting of performance, and growing pressure from payers and consumers of healthcare are placing unprecedented demands for measurable improvement in patient care metrics. While much is known about best practices, little evidence exists about methods to secure workflow transformation resulting in the successful adoption of best practice. This session will share the lessons learned, as well as the strategies for successful frontline team engagement and deployment resulting in incremental, sustainable improvement.

You will learn about the process undertaken to sustainably improve workflow resulting in dramatically improved patient experience scores in a critical care environment in a tertiary care teaching hospital. Key elements for sustainable team-based workflow improvement will be described.

Employing Lean tools and techniques, we improved our HCAHPS responsiveness to care scores from 52% to 73% in 2 quarters. This remarkable improvement was realized by using DMAIC and carefully progressing along a data-driven path. Beyond the clear improvement in the patient's experience of care, our team has realized many unexpected positive results: Joy in work, improved teamwork, empowerment, and engagement to tackle the next big challenge.

This work resulted in dramatic improvement of our Patient Experience Scores. Along the way, many lessons were learned about workflow transformation, care team engagement, leadership engagement, and strategic communication. While local sustainability seems "hardwired", we are currently conducting PDSA cycles to test for successful transferability of key elements of this initiative. Results for these should be forthcoming within the next 3-6 months.

## Catherine Palleschi

Director Cardiology Services, Maine Medical Center

Cathy Palleschi brings twenty-five years as a nursing leader with a passion for providing the highest quality care. This passion leads her to explore Lean applications to healthcare.

As a strong patient advocate, Cathy has promoted lean thinking and applications to Maine Medical Center (MMC) senior executives after visiting Pen Bay, a Maine Health member hospital. Two years after its introduction at MMC, she continues to share her excitement and passion with others as a lean coach and leadership mentor.

Cathy is the nurse director for Maine Medical Center's Coronary Intensive Care Unit and a twenty-four bed Interventional Unit. Cathy holds an MBA from Saint Joseph's College and a Bachelor's degree in nursing from University of Southern Maine.

## Suneela Nayak, MS RN, Lean Six Sigma Black Belt

Director, Operational Excellence, Maine Medical Center

Suneela serves as the Director of Operational Excellence at Maine Medical Center. As an experienced clinician and educator, Suneela has served as the Clinical Quality Specialist, consulting with learning collaboratives throughout the MaineHealth system.

Prior to joining MaineHealth, Suneela was with the Center for Clinical and Professional Development at Maine Medical Center in Portland. She has been a Clinical Services Director for Oncology and a Family Nurse Practitioner at McGill University Teaching Hospitals in Montreal, Canada.

Suneela holds a Black Belt in Lean/Six Sigma, a Bachelor of Science and Advanced Nursing Practice Certificate from McGill University, and a Master's degree in Education and Administration from the University of Southern Maine.

### **C4: The Integration of Lean and Safety - Is It Possible or Do They Conflict?**

John Perrotti III, CMRP, Vice President, Fuss & O'Neill Manufacturing Solutions, LLC

Our lean journey takes us down many roads to remove waste and make our processes work more efficiently. There are times that this process uncovers new hazards or hidden risks that are not always obviously apparent. During this session you will hear of examples of lean approaches that unknowingly created greater safety risks, or hidden risks that were not initially identified. The session will also show solutions to the examples where a lean approach was still maintained.

This session will show and emphasize the necessity for a strong cross functional team when implementing your lean strategies.

Often, when companies integrate lean methodologies, they look to remove waste. Sometimes during this process it produces new hazards and risks. The concept of removing waste during a process; or looking for ideas to reduce set-up times often inadvertently exposes hazards and dangerous conditions.

You will learn how you can employ lean tools and use them to become more efficient while increasing safety. The following will be discussed in the context of how lean and safety can be integrated:

- Risk assessments
- Ergonomics
- Maintenance

The presentation will utilize examples where while employing lean, new hazards were exposed and examples of alternate methods that could have increased safety and reduced waste.

You will come away understanding that, while employing lean, new hazards can be exposed. You will receive examples of alternate methods that could increase safety and reduce waste, as well as some tools and techniques that will help you to perform improved and more consistent continuous improvement activities while maintaining compliance.

When properly integrating lean and safety, organization will be able to reduce waste, while improving overall safety.

## **John Perrotti**

Vice President, Fuss & O'Neill Manufacturing Solutions, LLC

John is a Fuss & O'Neill Vice President based in the Manchester office and leads various disciplinary efforts for our Manufacturing Solutions group. He is an expert in reliability and has developed methods and approaches to evaluate systems for achieving maximum performance. He is an expert in electrical safety -NFPA 70E compliance, and Lock Out/Tag Out Procedures.

John has led many Total Productive Maintenance sessions. He has also performed training and support in Maintenance Manager 101, Troubleshooting Techniques, Set Up Reduction and Utilizing a Lean Approach to Safety. He is an expert in Overall Equipment Effectiveness and how to leverage it to prioritize the improvement effort process. He teaches for many MEP's throughout the Northeast as part of their Lean Certification programs. John has extensive knowledge within the metalworking industry, providing support solutions for regulatory compliance and methods for increasing production. John is also a trainer for increasing production on clients' factory floors.

John manages and oversees the onsite safety compliance services for various clients. John has a unique skill of creating a teamwork atmosphere with project progression with safety always a focus. He leads many of the high hazard services. His unique approach at identifying the hazards and providing comprehensive solutions with minimal impact to production has allowed manufacturing

facilities to maintain safety while production remains high. John was a standards development subcommittee member for ANSI B11.19 (2003) – The Performance Criteria for Safeguarding.

He has consulted for many Fortune 100 companies and personally managed the process from initial Risk Assessment, Design and Engineering of Solutions, to Implementation of the Machine Guarding and Risk Reduction solutions. His clients continuously reach out for his expertise to train and provide guidance, suggestions, interpretations and development of their own internal standards.

John believes in “hands – on” involvement and innovative team approaches to improve equipment effectiveness. He has led clients to improve the productivity and reliability of their manufacturing equipment. John has unique problem solving abilities and troubleshooting techniques. He has led the process of performing a Failure Mode and Effects Analysis (FMEA) as a tool to formulate a complete maintenance approach.

## **C5: How Ohio is Using Lean Six Sigma to Power Improvement**

Cindy Money, Lean Coordinator and Training Manager, Ohio Environmental Protection Agency

In this session you will have the opportunity to see how Lean, Kaizen and Six Sigma principles, tools, and strategies are being deployed in the state of Ohio government agencies.

It will focus on how Ohio is using Lean and Six Sigma to make government services in Ohio simpler, faster, better, and less costly through teaching, coaching, and spreading the concepts of process improvement throughout state government. This improvement method is helping Ohio’s state agencies cut red tape, remove inefficiencies, improve customer service, and achieve measurable results.

Specific examples will be provided from numerous Lean projects that have been completed. These results range from major week-long Kaizen events to daily improvements and everything in-between. All of the examples will relate to four key areas used to measure a successful project: simpler, faster, better, and less costly.

## **Cindy Money**

Lean Coordinator and Training Manager, Ohio Environmental Protection Agency

Cindy Money is currently working in the Director’s Office of the Ohio Environmental Protection Agency and serves as the Lean Coordinator and Training Manager for the agency.

Cindy has been working for the State of Ohio for nine years. She started her career in state government at the Department of Taxation (ODT) in 2007, spending four years in the Organizational Development Division as a Training Officer. While at ODT Cindy began studying Lean Six Sigma concepts and earned her Greenbelt status in 2012. In 2013, Cindy became a Training Supervisor for the Public Utilities Commission of Ohio (PUCO).

During the two years she was employed with the PUCO Cindy continued to pursue her interests in the concepts of Lean Six Sigma and earned her Black Belt status in 2015 from LeanOhio, an office within the Ohio Department of Administrative Services.

Cindy received a Bachelor of Arts degree in English from the State University of New York at Albany. She is also a member of the Ohio Quality Network, the State of Ohio Training Association and the SOTA Partners group. Cindy is very passionate about using the concepts and tools of Lean Six Sigma in order to improve the processes of state government making them simpler, better, more efficient and less costly.

- *The LeanOhio Office works to streamline work processes and deliver quality services in a cost-effective way in Ohio state government by utilizing the tools of Lean, Kaizen and Six Sigma.*

*The mission of LeanOhio is to make government services in Ohio simpler, faster, better, and less costly. Using the improvement methods of Lean and Six Sigma, Ohio's state agencies are cutting red tape, removing inefficiencies, improving customer service, and achieving measurable results.*

*The LeanOhio Network includes hundreds of state employees who have been involved in Kaizen events and other improvement projects. Many have earned Green Belt or Black Belt certification. The Network includes state employee unions and members who promote Lean, improve processes, and partner with the state to teach Lean tools and strategies.*

*Each state agency has a Lean Liaison. This ensures communication and coordination throughout state government. Liaisons identify improvement opportunities, engage agency staff in improvement efforts, and ensure that changes are implemented and sustained.*