

CME LEAN TRANSFORMATION MODEL

A CME Lean and Technology Engagement Guide

PURPOSE: To provide members with a clear and agile roadmap for their Lean Journey. Offering an order of application that leverages CME Training, Facilitation, and Council Activity to advance on the Lean Journey as outlined by the CME Lean Assessment.

SCOPE:

A situational approach based on CME's Service Guide/CME Offerings demonstrated through a visual road map, key milestones, and defined resources. The contents will address the five dimensions proposed by John Shook's Lean Transformation Model for Enterprise Transformation:

<https://www.youtube.com/watch?v=oeRXOT8lv0g&t=3s>

1. Problem to be solved
Objectives, goals, value driven purpose
2. Work to be done
Process by which purpose is accomplished
3. Capabilities required
Capabilities required to get the work done
4. Management system that will support the work that needs to be done
Structure to manage accountability
5. Culture to engage
Mindset, underlying assumptions, behavior

FIVE DIMENSIONS:

1. Problem to be Solved

Improve Organizational Lean Culture by advancing through the CME Capability Maturity Levels documented in the CME Lean Assessment to drive business results.

The Value Driven Purpose of a Lean Journey (*problem to be solved*) is to achieve and sustain a culture of continuous improvement. The Capability Maturity Levels are used during the CME Lean Assessment to benchmark progress along the way.

CAPABILITY MATURITY LEVELS

Level 1	Some awareness of this practise; sporadic improvement activities may be underway in a few areas
Level 2	General awareness; informal approach deployed in a few areas with varying degrees of effectiveness and sustainment
Level 3	A systematic approach/methodology deployed in varying stages across most areas; facilitated with metrics and good sustainment
Level 4	On going refinement and continuous improvement across the enterprise; improvement gains sustained
Level 5	Exceptional, well definite, innovative approach is fully deployed across the extended enterprise (across internal and external value streams - recognized as "World Class Best Practise"

2. Work to be Done

To improve on the Lean journey *the work to be done* is described through the ten Lean Assessment Categories:

Lean Strategy

Lean principles incorporated in strategic and planning processes to the extent which they ensure they meet customer expectations.

It should be noted that for this purpose, the term 'customer' takes the accepted Lean definition that a customer is any process or body which receives output from a process under your operation.

- Organization has clear vision, mission and values understood by the extended supply chain
- Lean Strategy is part of the business plan that drives strategic planning
- Organization's structured approach to Lean deployment is fully integrated
- Organization has a process for determining customer value and it is linked to business plan

Business Systems

Key support processes (not in the direct work stream of delivery) support the adoption of Lean principles. The information that is transmitted throughout the organization supports the provision of service to the end customer.

- Organization's financial systems and measurements support and drive Lean activity.
- Organization's information systems are linked across the extended supply chain.
- Organization uses strategic sourcing and partnerships to integrate extended supply chain into business.

Lean Leadership

Leaders Encourage and champion a Lean Culture and are active in encouraging and mentoring Lean introduction.

- Leaders within the organization encourage Lean transformation by coaching and mentoring other leaders.

People Development

People are provided with the necessary Lean skills, support, and motivation to support the organization's strategic Lean goals.

- Organization has a structured program for developing and continuously improving Lean skills which supports the extended supply chain.
- Resources are available to employees to support Lean transformation, strategic initiatives, and supply chain transformation.

Lean Culture

Teamwork is maximized and employees are empowered in both Lean and Environmental Health and Safety initiatives.

- Organization's structure and employee expectations encourage Lean behavior because they are organized by value stream.
- Job roles are clearly defined with delegated authority and executed. Risk management and best practice are developed and disseminated.
- Tiered LMS linked to business is utilized for driving focused improvements linked to business needs.
- Organization has a formal Environmental Health and Safety (EHS) program.

Collaborative Working

Design of projects, creation of products and the provision of services takes account of customer requirements, encouraging flow, reducing waiting time, inventory or buffer and life cycle costs.

- All members of the organization and extended value chain are included in reducing cycle time and encouraging flow.

Delivery of Value

Key Processes consistently analyzed to identify waste to deliver end customer value.

- Value Stream Mapping (VSM) is used to drive step change improvement.

Standard Work

Processes, tools, and systems have been standardized across the organization in order to enable structured continuous improvement and promote a safe work environment.

- Processes, tools, and systems are standardized across all sites and departments.

Process Flow

Processes designed to encourage flow and balance resources. This will apply to all processes including design, purchasing etc...not just service or production.

Note that the term 'inventory or buffer' within this question may also be construed to refer to time, or any form of information which normally flows through the organization's processes.

- Information, material, and services flow at the rate of customer demand across the entire supply chain- Process flow is continuous throughout the extended supply chain.

Process Control

Processes are being controlled, analyzed, and designed to reduce variability and thus the number of defects, in turn reducing rework and inspection. Source of process variations could include materials, people, methods, machine/equipment, and environment.

Note: For the purposes of this question (and this tool) the definition of the word defect shall be the accepted Lean definition of any process output that does not meet customer value specifications, or that leads to the realization of one or more of the eight wastes.

- Process variation is continually reviewed and reduced in all processes throughout the organization.
- Root cause of defects is analyzed, and processes updated with lessons learned.
- Mistake Proofing (Poka-Yoke) is incorporated in processes and considered in initial design.
- A formal maintenance management system (e.g. Total Productive Maintenance) which incorporates risk management and contingency plans is in place.

3. Capabilities Required

CME helps manufactures grow by providing the members with the capabilities to achieve successful Lean Strategy, Business Systems, Lean Leadership, People Development, Lean Culture, Collaborative Work, Delivery of Value, Standard Work, Process Flows, and Process Controls. The following outlines the available CME Offerings and describes the reason, description/application, ownership, and frequency. The offerings are available through CME ala cart and are designed to be adapted to meet the needs and maturity of organizations.

Capabilities Required

The following CME offerings will be presented as:

Lean Assessment Category	Name of Offering	CME Delivery Platform
Why: Reason to engage with offering What: Course/Training description When: Frequency logistics of scheduling Who: Responsible/eligible		

Lean Strategy	Lean Assessment	Facilitator Day/Consulting
Why: Identify current best practice as well as opportunities for improvement to advance an organization's Lean Journey What: A bench marking tool consisting of plant tour, a series of cross functional interviews, a score card and report out conducted over two days. Host organization receives a Report Out outlining the highlights and opportunities of the current state (in relation to the criteria of the Lean Assessment), a Score Card determining the Lean Maturity Level, and the proposed next steps to advance on the journey. When: Regular intervals to benchmark Lean Journey-Annually to Semi annual (available upon request).		

Who: All consortium members and any company starting or engaged in Lean and Continuous Improvement efforts.

Lean Strategy	Lean Strategic Planning/Road Map	Facilitator Day/Consulting
<p>Why: Align Continuous Improvement Activities to the company's strategic plan</p> <p>What: A facilitated workshop that creates an annual Enterprise Transformation Roadmap. This is a lean methodology to create a roadmap for learning and implementing a process for sharing and deploying the direction, goals and approaches from top management to employees and for each unit of the organization to conduct work according to plan. The roadmap is a visual outline of Kaizen Activities considering the company's resources over the next twelve months</p> <p>When: Annually to biennial following a Lean Assessment (available upon request).</p> <p>Who: All consortium members and any company starting or engaged in Lean and Continuous Improvement efforts.</p>		

Lean Strategy	Hoshin Kanri Workshop	Training Services
<p>Why: Understand the concept and benefits of the tool Hoshin Kanri.</p> <p>What: Hoshin Kanri is a Japanese term for strategy deployment. It creates a process for sharing and deploying the direction, goals and approaches from top management to employees. Under a Hoshin Kanri approach, organizational plans are developed using both top-down and bottom-up perspective – and looks at both process and results. This learning session focuses on the Hoshin Kanri structure and impact of the X-Matrix, the Catch Ball Process, and Bowling Charts</p> <p>When: One Day Workshop (available upon request).</p> <p>Who: Company Executives looking for a more engaged and aligned tool for strategic planning.</p>		

Lean Strategy	Hoshin Kanri Planning Session	Training Services
<p>Why: Develop a 3-5 year Strategic Plan.</p> <p>What: Facilitated Strategic Planning session to engage and align team. Utilizing the Hoshin Kanri structure and impact of the X-Matrix, the Catch Ball Process, and Bowling Charts.</p> <p>When: One Day Workshop (available upon request).</p>		

Who: Executives involved in the Company's strategic planning.

Business Systems	Lean Office - 1 Day Workshop	Training Services
<p>Why: To gain understanding and visualize the benefits of the principles of Lean can to the office environment. Offering hands-on insights into how Lean can transform office processes, reduce waste, and boost productivity.</p> <p>What: A focused dive into applying Lean principles in an office setting, covering:</p> <ul style="list-style-type: none"> • A recap of Lean concepts with an emphasis on their relevance to office tasks and processes • Exploration of typical office "wastes" and inefficiencies • Hands-on exercises and simulations showcasing the transformation of office processes • Techniques like Value Stream Mapping tailored for the office environment • Case studies of successful Lean implementations in service and administrative sectors • Group discussions on challenges specific to the office and potential Lean solutions <p>When: One Day Workshop (available upon request).</p> <p>Who: Professionals from administrative, service, financial, HR, IT, and other non-manufacturing sectors. It's especially beneficial for those who have undergone the "Lean 101" workshop and are looking to further tailor Lean for their specific work environment.</p>		

Business Systems	Lean Supply Chain (Operations)	Training Services
<p>Why: Gain a comprehensive understanding of modern supply chain management through a balance of presentations, simulations, and real-world case studies. Participants can optimize their supply chain operations and create more streamlined processes for their organizations.</p> <p>What: A deep dive into the world of supply chain management, with highlights including:</p> <ul style="list-style-type: none"> ▪ Exploration of a 5 Phase approach to Supply Chain. ▪ Engaging in the Supply Chain Simulation Game to understand real-world dynamics. ▪ Applied learning through a relevant case study to bridge theoretical knowledge with practical insights. ▪ Expert guidance and knowledge-sharing by a seasoned Supply Chain facilitator with vast real-world experience. <p>When: A 2-day intensive workshop (available upon request).</p> <p>Who: Professionals in any supply chain-related role who will benefit from a deeper understanding of modern Supply Chain essentials.</p> <ul style="list-style-type: none"> • Entry-level Supply Chain practitioners seeking foundational knowledge • Mid- or management-level practitioners needing a refresher on core supply chain principles 		

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Business Systems	Technology/Industry 4.0 Workshop	Training Services/MAP
<p>Why: Bridge the foundational principles of Lean with the innovative capabilities of Industry 4.0. Enables manufacturers to tackle operational challenges in a digitally connected and globalized era. The workshop aims to showcase how Lean, combined with advanced digital manufacturing, can lead to unparalleled operational excellence.</p> <p>What: A comprehensive 1-day workshop that includes:</p> <ul style="list-style-type: none"> ▪ Introduction to Lean-Advanced Manufacturing (Lean-AM). ▪ Deep dive into the Nine Pillars of Industry 4.0. ▪ Interactive group activities. ▪ Overview and understanding of the Lean-Advanced Manufacturing Readiness Assessment Process, as well as the development of a Lean-AM Strategy and Roadmap. <p>When: 6 hour in-person and remote facilitated options available upon request or as posted on the CME Website.</p> <p>Who: Ideal for manufacturing business leaders and change agents who are keen on embracing digital manufacturing. It's tailored for those looking to discern the next evolutionary step in their Lean journey, by integrating digital solutions and advanced manufacturing principles for heightened efficiency and innovation.</p>		

Business Systems	Business Systems Redesign	Training Services
<p>Why: Gain support to “reset” due to efficiency and flow have barriers to productivity, growth, and profitability. An in-depth transformation focused on reducing lead time, reducing footprint, while increasing profitability and customer response time.</p> <p>What: A deep look into all business processes from intake of demand to customer receiving what they were promised. The program starts with executive visioning then training for a core group that will drive the analysis, reporting, project outcomes and results. Business Systems Redesigns (BSR) uses coaching and mentoring through a series of concepts and change principles by instruction, coaching and learn by doing to help guide an organization through a step change. Some of the training elements include Terms of Reference development, effective data collection, project management and control, formal executive reporting, change management, desk top simulations, force field analysis, standard work, visual workplace and many more concepts.</p> <p>When: 3–6-month program to get the plan in place. Implementation and transformation will vary based on organization size, targets, and score. Available upon request. Each program is customized to fit organization dynamics and goals.</p> <p>Program Example:</p> <ul style="list-style-type: none"> ▪ 1 day of executive training and visioning ▪ Project team selection ▪ 1 week of team training and creation of high-level deliverables including Terms of Reference and formal executive report-out 		

- Weekly coaching for 1 month during data collection, research, and project team development
- Plan approval and launch implementation
- Monthly coaching for 2-5 months
- Implementation launch

Who: Organizations that have reached a stage where their operational efficiency and workflow have started impeding progress.

This program requires a dedicated team to analyze all business processes made up of executive team member(s) to start. Once vision and support are established, a team of 3-6 leaders and process owners can be assembled for the duration of the program. It's recommended that this team is led by a Lean Blackbelt or a seasoned change expert to ensure effective guidance and implementation.

Offered to private groups in-person (available upon request).

Lean Leadership	Lean for Leaders	Training Services
<p>Why: Understand what it means to be a Leader in a Lean organization; support and lead transformational change.</p> <p>What: Theory covering Lean philosophy and tools, a hands-on Kaizen to experience change, as well as a lean strategy development session. This 'learning-by-doing' style of program will provide the business leader with basic Lean knowledge, tools and strategy to lead the organization on a journey of continuous improvement.</p> <p>When: 5 days total; 1 day classroom intro, 3-day Kaizen, 1 day strategy session (available upon request).</p> <p>Who: Leaders who are assigned to transformation change.</p>		

Lean Leadership	Manufacturers Leadership Development 101- (MLD101)	Training Services
<p>Why: MLD101 is designed to help participants smoothly transition into leadership roles within the manufacturing industry.</p> <p>What: The program covers various aspects of leadership, including the dynamics of transitioning into leadership positions and exploring different leadership styles. Emphasizing the importance of a growth mindset, it aims to enhance critical thinking skills through engaging activities and reflective opportunities. Participants will gain valuable insights and strategies to support their leadership</p>		

journey. By the end of the program, they will be equipped with principles to help achieve team and organizational goals. Knowledge gains will be assessed through observational, oral, and written/self-assessments, complemented by simulation activities.

When: Offered as scheduled on the CME Website. The course generally takes places over 1 day.

Who: This course is designed for anyone who would like to improve their leadership skills as they journey through their manufacturing careers.

Lean Leadership	Manufacturers Leadership Development 1- Essentials (MLD1)	Training Services
<p>Why: Build stronger Front-line leaders in order to influence employee engagement in a way that impacts efficiency, productivity and strengthens the bottom-line.</p> <p>What: A 1 hour launch meeting, followed by 1 day of training for the mentors & Leaders, 5 days of training for the leaders, and a day of Mentor/Leader training. <i>*one week between each training day*</i> Combination of audience helps bridges the gap between two levels of leadership, supports relationship building and cultural alignment. It also helps with celebrating the achievement through a graduation and certificate presentation ceremony. There are 1-1 coaching calls weaved through the session to ensure maximum learning and mentorship by a seasoned CME Leader. Training includes Lean techniques, world class facilitation and lectures, simulations, role play, peer-to-peer sharing, coaching templates, homework assignments and more.</p> <ul style="list-style-type: none"> When: Offered as scheduled on the CME Website. The course generally takes places over the span of 8 weeks with one training day per week(8 weeks) during that time. Homework assignments between each training day force the “lean by doing” model and provide an opportunity for peer-peer and facilitator feedback. <p>Who: Designed for the development of Front-line leaders and management. MLD101 is a pre-requisite for MLD1 and this is a pre-requisite to Manufacturers Leadership 2-Fundamentals. Available online and in-person, private and public sessions.</p>		

Lean Leadership	Manufacturers Leadership Development 2- Fundamentals (MLD2)	Training Services
<p>Why: MLD 2 builds on the core concepts of MLD 1, expanding your ability to apply these principles to broader and more challenging contexts. Through a carefully structured program, leaders will delve into advanced stages of team development, emotional intelligence, change management, and strategic leadership, all within the unique ecosystem of manufacturing leadership.</p> <p>What: From Emotional Intelligence to Advanced Application, MLD2 expands its application into leadership roles, focusing on empathy and interpersonal relationships. MLD2 builds on the personal leadership insights gained in MLD1, encouraging deeper reflection on personal values and leadership purpose. While MLD1 introduces team development stages, MLD2 delves deeper into each stage (Forming, Storming, Norming, Performing) with a focus on leading through these phases effectively. Communication and coaching foundations are expanded in MLD2 through advanced coaching</p>		

techniques and the strategic use of storytelling. Strategic Leadership and Decision-Making is introduced in MLD2 which introduces strategic leadership competencies, including financial literacy and ESG principles, building on MLD1’s problem-solving and decision-making skills. Technology and Innovation: MLD2 incorporates digital AI technologies for leadership effectiveness, an area not covered in MLD

When: 5 days of training for the leaders, with interactive modules spread over five days, including lectures, discussions, and practical exercises, course takes place over 8-12 weeks including one on one telephone coaching with the facilitator between sessions, Laddering from MLD1 to MLD2

Who: This course is specially tailored for manufacturing leaders who have completed MLD 1 and are poised to take on greater leadership responsibilities. Whether you’re leading a small team or steering large-scale strategic initiatives, MLD 2 equips you with the nuanced skills required to lead with impact in the ever-evolving manufacturing sector.

Lean Leadership	A3 For Leaders	Training Services
<p>Why: Give leaders skills and confidence assign ownership of outcomes and coach problem solvers. Learn how to lead people through systematically problem solving for sustainable improvements and to gain traction toward cultural engagement. Participants will learn the importance of problem ownership through coaching and mentoring. This is as much about people engagement and culture shift as it is about systematically solving problems.</p> <p>What: Training on the CME 9 Step Method of A3 Problem Solving, with a focus on how to get results through people. A mix of theory and participation in real problem-solving. Learn how to coach and guide people through effective problem-solving by getting more people to take ownership and grow their problem-solving mindset.</p> <p>When: Two day interactive and hands-on workshop. Available in-person and remote facilitated publicly as offered on our website calendar or privately (available upon request).</p> <p>Who: Current workplace leaders and continuous improvement staff looking to get more engagement and ownership of problems. Lean Yellowbelt or equivalent experience is a prerequisite.</p>		

Lean Leadership	Lean Supply Chain Management (Executives)	Training Services
<p>Why: To grasp the essentials of Supply Chain Management.</p> <ul style="list-style-type: none"> • Understand the fundamental concepts behind supply chain management • Learn how supply chains work, and how to measure their performance • Explore the ways in which innovation is improving supply chains around the world • Examine the supply chain as a source of competitive advantage 		

What: Training utilizing a balance of formal presentations, a case study, group tasks and simulations that cover the essentials of Supply Chain Management.

- Integration. Seamless collaboration and communication between different supply chain stakeholders, like vendors, distributors, etc., and within the primary manufacturer's different functional wings and departments is crucial. ...
- Operations. ...
- Purchasing. ...
- Distribution. ...
- Innovation.

When: 2-day intensive workshop (available upon request).

Who: Supply chain practitioners or managers looking to broaden their understanding.

Lean Leadership	Facilitation Skills	Facilitator Day/Consulting
<p>Why: Gain facilitation skills paramount to the Lean journey. Facilitation is required to ensure effective improvement events that drive change.</p> <p>What: Training to define the skills set of a facilitator, reflect on any gaps you may have, learn how to execute a Kaizen Blitz, practice facilitating in a safe environment, get feedback from your peers</p> <p>When: 2 days; one day theory, self-reflection, one day facilitation practice and feedback (available upon request).</p> <p>Who: Change agents looking to gain facilitation skills.</p>		

Lean Leadership	Facilitation Skills Leading Kaizen	Facilitator Day/Consulting
<p>Why: Lean journeys need facilitated improvement events that drive change</p> <p>What: Mentor support and feedback through scoping and facilitating Kaizen.</p> <p>When: Available upon request.</p> <p>Who: Facilitator looking for mentorship.</p>		

People Development	Lean 101	Training Services
<p>Why: Learn about Lean, Continuous Improvement and Problem Solving. Gain an awareness of some of the fundamental lean tools and how they can transform any process and culture. Learn how to identify Value Added and Non-Value added activities and ways to reduce process waste.</p> <p>What: Lean awareness through theory, conversation, hands on exercises and a simulation that highlights the benefits of Lean through transformation.</p>		

When: One day interactive and hands-on workshop. Available in-person and remote facilitated publicly as offered on our website calendar or privately upon request.

Who: Anyone interested in learning about lean and how it can help.

People Development	Yellowbelt (LL1)	Training Services
<p>Why: Develop skills to own formal improvement initiatives in your own area. Learn how to actively contribute and support formal continuous improvement.</p> <p>What: Tool based, in-depth introduction to Lean with an emphasis on the five core Lean principles and waste reduction. Hands on experience applying the tools (5S, VSM,).</p> <p>When: Five-day with one module completed online at your own pace training can be taken in-person or remote facilitated public as offered on our website calendar and/or private upon request</p> <p>Who: Anyone currently engaged in Lean and Continuous Improvement efforts and any employee who will participate in these efforts going forward. Prior exposure to Lean is a benefit. CME's Lean 101 is a prerequisite.</p>		

People Development	A3 Problem Solving	Training Services
<p>Why: Learn how to systematically define a problem, reach root cause, develop solutions, and create a project plan with a team. Use a one-page report to work through the dynamics of a problem through to the implementation of a sustainable solution with an experienced facilitator. Peer-to-peer sharing supports learning and confidence.</p> <p>What: Training on CME's 9 Step Method to A3 Problem-Solving. Teaching participants how to walk through a problem without jumping to solutions, addressing the root cause not the symptoms. This workshop includes effective brainstorming techniques, proper root cause analysis and process discipline in a team environment. Utilizing real problems so participants learn how and when to apply A3 Problem-Solving and work through a real problem to validate the use of the tool.</p> <p>When: One day interactive and hands-on workshop. Available in-person and remote facilitated public as offered on our website calendar and/or private upon request.</p> <p>Who: Anyone currently engaged or interested in formal Problem Solving and any person who will participate in Problem Solving efforts going forward. Prior exposure to Lean is a benefit and Lean 101 is a benefit but not a prerequisite.</p>		

People Development	Greenbelt (LL2)	Training Services
<p>Why: Gain skills, and confidence to lead formal change and team-based problem solving. Become a leader in using team-based improvement techniques to deliver meaningful and sustainable results while building a culture of continuous improvement. This program will help improve employee engagement, morale, and problem-solving thinking.</p>		

What: Facilitated training on lean tools and culture change methodologies through a blend of online, classroom style and hands-on transformation of real business processes. This CME Certificate program offers the best in Learn-by-Doing techniques through rapid focused transformation called Kaizen Blitz. Participants are guided through 3 transformation projects (Kaizen Blitzes) each with a different focus; 5S (workplace organization and visual workplace), Cycle Time Reduction and Business Systems Improvement through Office Kaizen. These Kaizen events are complemented by world class facilitation focused on using lean tools, measurement, change management and presentation practice. Peer to peer learning and homework assignments drive confidence and results.

When: Three distinct weeklong modules spanning over 3 months for a total of 15 facilitated days. It's 1 week per month for 3 months. Homework assignments are completed between each module. Sessions offered publicly as posted on the CME Website Calendar.

Who: Current workplace leaders and continuous improvement staff looking to build skills and confidence to lead sustainable change and results. CME Lean Yellowbelt is a prerequisite.

People Development	Lean Greenbelt -Advance	Training Services
<p>Why: Help rekindle the energy, drive, and motivation of past Greenbelts.</p> <p>What: Training through expert facilitation, this program includes coaching on how to effectively leverage previous training and how to be an effective coach and facilitator. Participants will get a new confidence for leading change and running kaizen events with a fresh focus on 5S, Cycle Time Reduction and Business Systems/Office Kaizen. They will also learn the latest techniques in: Change management, Leadership, Technology. Learning and experimentation with 3D printing and robotics. This helps the participants to learn what's possible and how to evolve problem solving with the use of technology.</p> <p>When: 5 day course spread over 6-8 weeks. The first day is online, allowing students to get reacquainted and reenergized with Lean Facilitation at their own pace. Followed by 3 in-person days at host companies that not only get back to the basics but allow for mentoring and peer-peer learning around success and challenges in facilitations. Day 5 is held Red River Polytechnique where students get first hand learning by Red River instructors. Homework requirement between each module. Sessions offered publicly as posted on the CME Website Calendar.</p> <p>Who: Management and Change Leaders holding a Greenbelt or Blackbelt certificate who have been out of practice for a variety of reasons ranging from, change in role to lack of time and "too much time has passed" since the last facilitated formal improvement events</p>		

People Development	Kata Dojo	Training Services
<p>Why: Develop Kata Coaches responsible for coaching others effectively. Provides role-playing exercises focused on learning through feedback. Creates an opportunity to hone skills through repeating coaching situations at a much higher frequency than would occur at the gemba.</p>		

What: Learn by Doing training on set up and simulations. The emphasis on a sports-like approach ensures coaches can repeatedly practice a series of specially designed training exercises and role play in a safe offline environment.

When: One-day Workshop (available upon request).

Who: Designated change agents within an organization and anyone responsible for people/processes (including first and second-level leaders). Kata in the Classroom is a prerequisite.

People Development	Blackbelt (LL3)	Training Services
<p>Why: Grow change agents that will enhance Organizations to the next level of Lean transformation. Focused on using lean, technology and change management methods to improve organizations through the entire supply chain. Blackbelt graduates will have the confidence to build operational Lean Strategies, coach and mentor people in Lean tools and facilitation to eliminate waste and improve performance in all areas of the organization and supply chain.</p> <p>What: Focused on strategic, organization wide transformation, this certificate course builds off the Lean facilitation skills attained in Greenbelt and layers on improved data collection, supply chain assessment, change management, and technology to move the performance needle. 4 Modules to learn how to build Lean Strategy and roadmap, how to assess culture and gain momentum. Each module will enable the participant to lead Lean and Technology and Innovation by leveraging the power of people and effectively communicating with executive and senior leaders. Formal take-aways from the tour and capstone projects proving sustainable results are required to graduate.</p> <p>When: 4 modules are delivered over 6 months including a best practice tour. Sessions offered publicly as posted on the CME Website Calendar.</p> <p>Who: Change management champion. Lean Greenbelt is a prerequisite, Lean Greenbelt-Advanced is an asset.</p>		

Lean Culture	Lean and Safety	Training Services
<p>Why: Proactively protect your people while making process improvements and gaining productivity. Apply Lean tools to identifying and solving Safety Opportunities.</p> <p>What: Learn how to couple simple lean tools and techniques with fundamental safety practices to improve safety and continuous improvement culture.</p> <ul style="list-style-type: none"> ■ <i>Combine Safety Inspections and 5S Audits</i> ■ <i>Understand how to use a VSM to identify and control hazard as well as waste</i> ■ <i>Understand how to use video for analyzation and teaching purpose</i> ■ <i>Learn what TIMWOODS / REVAMP</i> ■ <i>Learn some methods to identify problems</i> ■ <i>Learn how to apply tools to fix problems</i> <p>When: One day workshop in person, available upon request privately or publicly as posted on the CME Website Calendar.</p>		

Who: Anyone and Everyone.

Lean Culture	Lean and Green 101	Training Services
<p>Why: Improve your process and reduce your environmental impact by applying Lean Principles.</p> <p>What: 1 day workshop with interactive assignments and Learn-by-doing techniques. Training and application focusing on the 7 forms of environmental waste in your organization.</p> <p>When: 1 day workshop in person, private or public.</p> <p>Who: Anyone interested in environmental and productivity improvements.</p>		

Lean Culture	Change Management ADKAR	Training Services
<p>Why: Learn how to improve cultural engagement to drive the best results and sustain them.</p> <p>What: Improvements succeed and fail on the back of culture. Learn about the fundamentals of change management through techniques that build awareness, Desire, Knowledge, Ability and Reinforcement.</p> <p>When: 2 day interactive workshop (available upon request).</p> <p>Who: All people leaders and influencers.</p>		

Lean Culture	Kata in the Classroom	Training Services
<p>Why: Understand the concept and benefits of applying the Scientific Method to problem solving.</p> <p>What: Training on the fundamentals of the tool, practice applying it to <i>katatogrow.com's</i> puzzle simulation, as well as experience setting up a Kata Board reflecting a real goal.</p> <p>When: One-day Workshop (available upon request).</p> <p>Who: Teams looking for an engaging effective way to problem solve. This is a prerequisite to Kata Dojo.</p>		

Collaborative Work	DiSC Assessment	Training Services
<p>Why: Help identify workstyle preferences, determine how someone would interact with others, and provides insight on work habits.</p> <p>What: An assessment followed by reflection around the 1928-published DISC emotional and behavioral theory of psychologist William Moulton Marston. The DiSC Assessment is a behavioral self-assessment whose results are designed to predict job performance by categorizing individuals into four personality traits: dominance, inducement, submission, and compliance. This offering utilizes the results from the assessment and peer discussion to grow effective communication and collaboration skills.</p> <p>When: Online asynchronous assessment followed by 1 day workshop reviewing results</p> <p>Who: Teams or individuals.</p>		

Collaborative Work	Shared Kaizen	Facilitator Day/Consulting
<p>Why: Gain Kaizen experience and best practice exposure by participating in 3 facilitated Kaizens for 1.5 Facilitator Days.</p> <p>What: A 3 Module (10 Day) <i>Learn by Doing</i> Cross Consortium Activity. Module 1 5S Kaizen, Module 2 Cycle Time Reduction Kaizen, Module 3 Office Kaizen all hosted at the gemba by Consortium Member Host.</p> <p>When: 3 Module, 10 Days offered in the Spring and Fall each year as advertised at through the Manitoba Lean Consortiums.</p> <p>Who: 10-15 members from Consortiums looking to utilize Facilitator Days and get people engaged in Kaizen.</p>		

Delivering Value	Value Stream Mapping	Training Services
<p>Why: Identify and eliminate process wastes utilizing the Value Stream Mapping methodology. Through hands-on learning and observation of a real-life process, Value Stream Mapping provides a structure that guides groups to meaningful solutions.</p> <p>What: Training on CME’s Ten-Step Method of identifying and eliminating waste (SIPOC) through direct observation of the process, mapping the detailed activities and cycle times, and document solutions to resolve root causes.</p> <p>When: One-day, onsite training (available upon request).</p> <p>Who: Any employee with previous Lean training who participates in Lean and Continuous Improvement efforts. Lean 101 is recommended.</p>		

Delivering Value	Cycle Time Reduction Kaizen	Facilitator Day/Consulting
<p>Why: Reduce the cycle time of a process to meet your target, strengthen problem solving skills, and promote teamwork.</p> <p>What: Real-life problem-solving Kaizen Blitz utilizing CME’s 5-Step Problem Solving Method, or Value Stream Mapping methodology. Solutions will be identified and implemented to drive significant results in reducing the process cycle time.</p> <p>When: Project scope, followed by a 2–3-day Kaizen blitz at the host company (available upon request).</p> <p>Who: Cross functional team with stake in a process, consisting of 4-6 core members with resources available, as needed.</p>		

Delivering Value	SMED Kaizen	Facilitator Day/Consulting
<p>Why: Reduce the cycle time of a change over in order to meet the target of single minute “exchange of dies”, strengthen problem solving skills, and promote teamwork.</p>		

What: Changeover time reduction through separation of tasks into external (run in parallel to the current process) and internal (run after process is complete) activities, conversion of internal tasks to external, and streamline the process through Value Stream Mapping.

When: Project scope, followed by a 2–3-day Kaizen blitz at the host company (available upon request).

Who: Cross functional team with stake in a process, consisting of 4-6 core members with resources available, as needed.

Delivering Value	SMED Kaizen	Training Services
<p>Why: Learn the tool(s) that reduce the cycle time of a change over in order to meet the target of single minute “exchange of dies”, strengthen problem solving skills, and promote teamwork.</p> <p>What: Training on changeover time reduction through separation of tasks into external (run in parallel to the current process) and internal (run after process is complete) activities, conversion of internal tasks to external, and streamline the process through Value Stream Mapping.</p> <p>When: One-day, onsite training (available upon request).</p> <p>Who: Any employee with previous Lean training who participates in Lean and Continuous Improvement efforts. Lean 101 is recommended.</p>		
Standard Work	Shared Lean Management System	Facilitator Day/Consulting
<p>Why: Gain Lean Management System Theory and best practice exposure (from other Consortium Members). Stop firefighting and start leading meaningful change utilizing the Lean Management System: Visual Controls, Standard Accountability, and Leaders of Standard Work.</p> <p>What: A 4 module course covering Standard Work, Visual Controls, Standard Accountability, Leaders of Standard Work, and Soft Skills for Leaders. Each week participants will learn a tool/principle through theory and group discussion. Additional assigned homework will solidify the learning and offer coaching opportunities among peers.</p> <p>When: 4x4 hour virtual sessions weekly offered by demand as advertised at through the Manitoba Lean Consortiums.</p> <p>Who: Consortium Members looking to utilize Facilitator Days and get people engaged in the Lean Management System.</p>		

Standard Work	KPI Development & LMS	Training Services
<p>Why: Gain Lean Management System Theory and KPI Coaching</p> <p>Learn and adopt best practices related to Key Success Factor’s (KSF’s) and Key Performance Indicators (KPIs). Agree on the levels or Tiers of KPI reporting. (Corporate requirements, vs. Plant, vs. Department vs. Cell). Establish KPIs for each level.</p> <p>What: Training to develop Key Performance Indicators that drive change supported by the Lean Management System.</p> <ul style="list-style-type: none"> •Learn about best practices with respect to Key Success Factors and Key Performance Indicators 		



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- Review Current state. What is going well, what’s not going well, what to change. Go to the gemba
- Establish an ideal future state, incorporating best practices
- Identify Gap
- Improvement
- Check that the objectives and outcomes have been met before concluding the event

When: Available upon request.

Who: Companies looking to drive meaningful change using numbers to rally their teams.

Standard Work	Gap Analysis Kaizen	Facilitator Day/Consulting
<p>Why: To close the gap between where you are and where you want to be.</p> <p>What: Real-life problem-solving kaizen blitz that identifies opportunities between where you are and where you want to be and works to eliminate the root causes. Review the definition of lean, understand the 8 forms of waste, learn how the LMS provides the foundation for CI (and create the resources to execute it). Have an understanding of what happens to stop fire fighting/doing the work of the team and start leading (also defining what that leader looks like)</p> <p>When: Project scope, followed by a 2-3 day Kaizen blitz at the host company, upon request.</p> <p>Who: Cross functional team with stake in a process, consisting of 4-6 core members with resources available, as needed.</p>		

Process Flow	5S Kaizen	Facilitator Day/Consulting
<p>Why: Change an area to promote flow, standard work, and eliminate wastes. Engage employees in Continuous Improvement efforts by participating in Kaizen that has visible, tangible results that directly impact safety and morale, and quality of product or service.</p> <p>What: Facilitated Kaizen using real-life application of 5S methodology to organize a workstation to facilitate flow of work (ie. Minimize or eliminate wastes within the workstation). Following 5S Standards (Sort, Set, Shine, Standardize, and Sustain) employees will go through the workstation to remove the unnecessary items, identify home locations for necessary items based on use, clean and inspect, and create standards or rules to sustain their improvements.</p> <p>When: Project scope, followed by a 2-3-day, on site Kaizen event (available on request).</p> <p>Who: Cross functional team with stake in a workstation, consisting of 4-6 core members with resources available, as needed. No Lean experience necessary.</p>		

Process Flow	5S	Training Services
<p>Why: Close the gap in employee knowledge on process flow within the workstation and require further coaching on identification and elimination of wastes.</p>		

What: Training using hands-on learning in a simulated environment on the 5S methodology to identify and eliminate wastes within the workplace to facilitate the flow of work performed at the workstation.

When: One day training, either on site or at the CME office, available upon request.

Who: Employees with the desire and motivation to learn a fundamental Lean concept, who can engage others and participate in meaningful improvements.

Process Flow	Cellular Layout	Training Services
<p>Why: Improve the flow of product through the value stream, decrease the footprint required, or design a layout to move into a new space.</p> <p>What: Training using real-life application. An observation of the product or service flow through the entire value stream, identification of major transportation and motion wastes, and design of a new layout to eliminate or minimize the waste.</p> <p>When: Project scope, followed by a 2-3 day Kaizen blitz at the host company (available upon request).</p> <p>Who: Cross functional team with stake in the value stream, consisting of 4-6 core members with resources available, as needed.</p>		

Process Controls	Six Sigma	Training Services
<p>Why: Empower participants with the ability to leverage data-driven insights for systematic problem-solving and continuous improvement using the renowned Six Sigma methodology.</p> <p>What: A comprehensive beginners 2-day workshop encompassing the Six Sigma tools, training, and methodology. Focusing particularly on data analysis and problem-solving techniques.</p> <p>When: Available upon request privately or public as posted on the CME Website Calendar.</p> <p>Who: Professionals, teams, or organizations keen on harnessing the power of data for rigorous analysis and improved decision-making. Previous exposure to quality management or continuous improvement methodologies may be beneficial but is not mandatory.</p>		

Process Controls	Kaizen Poke Yoke	Facilitator Day/Consulting
<p>Why: Set employees up for success by building quality into the process.</p> <p>What: A facilitated Kaizen with the goal of Poke Yoke, or error proofing. Focuses on removing variation within a process that poses a risk of defects considering Human Factors. Training on theory and best practice of the tool followed by root cause analysis and counter measures guided by peers and facilitator.</p> <p>When: Project scope, followed by a 2-3 day Kaizen blitz at the host company (available upon request).</p>		

Who: Cross functional team with stake in a process, consisting of 4-6 core members with resources available, as needed. Involves Process Owners, Quality, and Manufacturing Engineering. Tool design and Maintenance are resources are required.

Process Controls	Kaizen Total Productive Maintenance	Facilitator Day/Consulting
<p>Why: Reduce frequent unplanned downtime due to insufficient maintenance. Utilizing Operator engagement and ownership, required to maintain the health and performance of the equipment.</p> <p>What: A facilitated Kaizen with the goal of creating a holistic Maintenance System that engages several areas within the organization to maximize efficiency and productivity of the equipment. Total Productive Maintenance is designed to minimize or eliminate risk of equipment breakdown, defects to the product, and safety incidents by providing ownership to the equipment operators, closing the gap between them and their equipment's performance.</p> <p>When: Project scope, followed by a 2-3 day Kaizen blitz at the host company, upon request.</p> <p>Who: Cross functional team with stake in equipment performance, consisting of 4-6 core members with resources available, as needed. Equipment operators, Quality, and Maintenance are directly involved in this Kaizen.</p>		

4. Management System

To manage a Lean Journey the CME Lean Assessment is suggested annually.

A CME Facilitator conducts a series of Gemba Walks and Interviews to assess the Lean Culture of and organization and propose next steps. The two-day session provides a completed score card and offers 3+ Highlights and 3+ Opportunities in each of the ten Lean Assessment Categories. This assessment serves as a conversation starter encouragement on the journey and an outside perspective as well as benchmarking tool.

Lean Assessment Scorecard

Question	Your Score	Departmental Level				Enterprise Level	
		Some Awareness	General Awareness	Systemic Approach Deployed	On-Going Refinement	Exceptional, World-class	
Lean Strategy (L10)							
1.1 Does your organization have clear vision, mission and values?	1	Doesn't exist	Documented	Disseminated	Understood by all	Clearly understood by the extended marketplace	
1.2 Is your organization's Lean strategy part of the business plan?	1	Informal	Exists with measures	Linked to business strategy	Incorporated in strategic planning	Driven strategic planning	
1.3 Does your organization have a structured approach to Lean deployment?	1	Informal	Exists but fragmented	Exists but separate	Partially integrated	Fully integrated	
1.4 Does your organization have a process for determining customer value?	1	Informal	Recognized but inconsistent	Structure in place	Supported by measures	Linked to business plan	
People & Systems (L20)							
2.1 Does your organization's financial systems and measurements support Lean Activity?	1	Doesn't support	Recognized but still not supporting	Provides data	Support Lean activity	Supports and drives Lean activity	
2.2 Are your organization's information systems linked across the extended supply chain?	1	Stand alone	Plans to link	Linked within value streams	Linked across enterprise	Linked along extended supply chain	
2.3 Does your organization use strategies seeking to integrate your extended supply chain into your business?	1	Doesn't exist	Supplier base ration stated	Key suppliers aligned	Strategic outsourcing	Partners integral in supply chain	
Lean Leadership (L30)							
3.1 Do all leaders within the organization encourage Lean transformation?	1	Partial support	Committed and trained	Championing Lean transformation	Leading Lean transformations	Co-Prime and mentoring other plants	
People Development (L40)							
4.1 Does your organization have a structured program for developing and continuously improving Lean skills?	1	Informal	Lean training available	Lean training program deployed	Linked to business plan	Supports extended supply chain	
4.2 Are resources made available to employees to support Lean in practice?	1	Limited resources	Lean resources available	Aligned with Lean transformation plan	Available to support supply chain	Support strategic initiatives and supply chain transformation	
Lean Culture (L50)							
5.1 Does the organization's structure and employee expectations encourage Lean behavior?	1	Site organization	Functional barriers recognized	Some cross functional teams	Functional departments as knowledge centers	Value stream organization structure	
5.2 Are job roles clearly defined with adequate authority and resources?	1	Doesn't exist	Job descriptions exist and vague	Trained to position	Performing to position	Managing risk, developing and streamlining best practice	
5.3 Is there a system for sharing focused improvements for business results?	1	Adequate improvement	Visual controls on critical process	Daily huddle to review abnormalities	Management review and resolution	Trained LMS linked to business need	
Continuous Workflow (L60)							
6.1 Does your organization have a formal inventory check and lot of (L60) program?	1	Informal	Documented health and safety	Following the health and safety program	Environmental practices now controlled	Key suppliers have ESE program	
6.2 Are all members of the organization and extended value chain involved in reducing cycle time and processing time?	1	Some involvement	Customer and supplier inputs considered	Customer represented on project teams	Customers and key suppliers actively involved in project teams	Benefits shared across extended supply chain	
Delivery of Value (L70)							
7.1 Are you using Value Stream Mapping (VSM) to drive step change improvement?	1	Some understanding of need	Some value stream analysis	Value stream mapped and opportunities identified	VSM used tactically to address specific process issues	VSM used to deliver step change improvement	
Standard Work (L80)							
8.1 Have processes, tools and resources been standardized across all sites and departments?	1	Some standardization	Initial deployment of standardization on key processes	Process aimed at streamlining complex plans for tools and systems	Process, tools and system standardization complete with defined process sheets	Supply chain step-flow processes standardized	
Process Flow (L90)							
9.1 Does information, material and work flow at the rate of customer demand across the entire supply chain?	1	Flow is disrupted, rush scheduling	Key key processes aligned for flow	Process within the value stream aligned for flow, pull introduced and consistent	Processes stable throughout supply chain. Pull scheduling utilized	Process flow is continuous throughout the extended supply chain	
Process Control (L95)							
9.2 Is process variation continually reduced and reduced in all processes throughout the organization?	1	Some understanding	Initial efforts underway	Formal approach defined and implemented	Benefits realized at critical processes	Benefits being realized throughout extended supply chain	
9.3 Are root causes of defects analyzed and are processes validated with 5-sigma business?	1	Issues not connected to root causes	Methods by visual quality control	Common control sources	Key value stream issues root caused with cross functional teams	Value stream issues root caused with cross functional teams	
9.4 Is there a formal maintenance management system and condition critical design?	1	Issues resolved on ad-hoc basis	Evidence of basic mistake proofing	Key processes have mistake proofing applied	Mistake proofing used routinely	Condition of mistake proofing with critical suppliers	
9.5 Do you have a formal maintenance management system that includes Total Productive Maintenance which accepts work management and contingency plans?	1	Reactive or break down maintenance	Planned maintenance is applied	Data used to plan maintenance, operators involved	Interim plan with Total Productive Maintenance	Critical suppliers have Total Productive Maintenance program	

5. Mindset and Culture

To support the enterprise transformation CME Offers Consortiums. Groups of diverse companies who meet regularly to share best practice, hold each other accountable on the lean journey, and serve as outside eyes. The following are the active consortiums in Manitoba:

Lean Consortiums

Continuous Improvement Consortium of Southern Manitoba (CICSM)

VISION | A community of World Class Companies committed to creating a culture of continuous improvement

MISSION | Promote Continuous Improvement through collaboration and sharing in everything we do

Manitoba Council for Sustainable Improvement (MCSI)

VISION | To inspire and support organizations in their pursuit of excellence

MISSION | Sharing diverse experiences to continuously improve our organizations

Manitoba Council for Operational Excellence (MCOE)

VISION | Diverse Organizations committed to working together to win against the world's best

MISSION | Driving a Continuous Improvement Culture to maximize member's results through networking and sharing of resources and expertise

Manitoba Council for Manufacturing Excellence (MCME)

VISION | World's Best Consortium of committed organizations maximizing each other's success

MISSION | To grow a continuous improvement culture through sharing and learning while demonstrating leadership in all that we do

Executive Councils

Manufactures' Executive Council (MEC)

MEC

MOC

PCLC

ROADMAP:

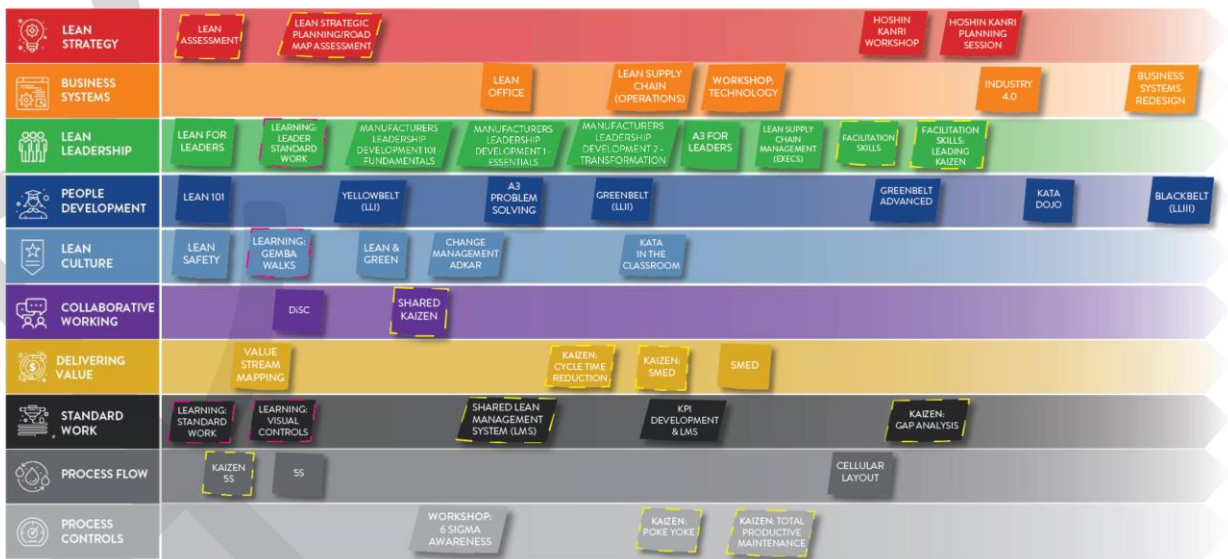
A visual summary of the described five dimensions the following roadmap displays the work that needs to be done on the y axis, the maturation on the x axis, and populates the capability building training and services available through CME.

Legend:

- TRAINING SERVICES – Courses and Workshops offered publicly and privately
- FACILITATION/CONSULTING– Facilitated Kaizen Improvement Events with an emphasis on Learning by doing in order to develop internal skill sets and reduce waste in processes
- DRIP LEARNING – Asynchronous content available to learners at their own pace

NO OUTLINE CME COURSE OFFERINGS
 YELLOW OUTLINE CONSULTING/FACILITATOR DAYS
 PINK OUTLINE DRIP LEARNING

LEAN JOURNEY MATURATION



NO OUTLINE – CME course offerings

YELLOW OUTLINE Optional consulting and/or facilitator days

PINK OUTLINE Available as video learning