



leonardo group americas, llc

Your Partner in Lean Excellence



Leonardo Group Americas LLC
Catalog of Services

Seminars • Improvement Programs • Coaching • Tools



**Flow Manufacturing Seminars
Lean Material Management
Six Sigma Greenbelt and Blackbelt Training**



Welcome to Leonardo Group Americas LLC **From the desk of our Principal and President**

We are please to present in this catalog a complete listing of the training and implementation programs available from Leonardo Group Americas. LGA represents an international team of lean and flow manufacturing experts, with success in virtually every industry, on every continent (except Antarctica!) and with companies ranging in size from Fortune 500 multi-nationals to firms smaller than 100 employees.

In these troubled economic times, many companies are cutting costs and employees, and scaling back investment in training, improvement projects and lean efforts, with the expectation that these efforts will resume when business picks up. Let's look, however, at some of the reasons why this may not be a good idea:

1. The waste within your current operations will not disappear by itself, and seriously impacts growth and profitability every month, every day. Why not tap into the hidden opportunities that already exist within your current Value Streams?
2. When business is booming, we're too busy filling customer orders to take time out for process improvement. What's our excuse now?
3. It is important to keep your core team together as much as possible, and not lose company critical skills and experience. If we have additional people within this group, working on lean projects is the best use of their time.
4. Your competition is probably not standing still, and if they can leap ahead during this period, you may have difficulty playing catch-up once the recession is over.

A key point to keep in mind is that lean and six sigma initiatives are not expenses, they are investments with a very high Return On Investment. At Leonardo Group Americas we have developed a formal process and tool for assessing the potential benefits and payback of a lean project, and payback periods of less than one year are common. Improving internal processes is the best investment you can make, for now and for the future.

Take a look at the 3-day Lean Assessment program in this catalog. We recommend this activity as a starting point, with the deliverable being a detailed Implementation Plan that makes the best use of your existing people, and offers outside help where it makes sense.



Leonardo Group Americas LLC

Executive Summary

Leonardo Group Americas LLC helps its clients achieve unbeatable performance through the use of the lean and six sigma approach and methods.

History

- Company formed in 1998
- Offices in Denver, Zurich, Munich
- Published *Fundamentals of Flow* in 2003, and *Aerospace Flow* in 2004
- Team of 15 consultants in the US and 25 in Europe
- Formed *The Lean Factory Group* in 2005 to promote lean with partner suppliers like SAP and Toyota. Formed *The Lean Hospital Group* in 2008.

Experience

- Applied lean thinking to industry environments since 1994, with hundreds of improvement events and projects
- Applied lean thinking to virtually every industry, including electronics, home building, musical instruments, automotive, medical devices, railcars, aerospace, food industry
- Clients include General Electric, John Deere, Boeing and hundreds of other companies
- Developed the lean program for the Supplier Excellence Alliance (SEA) for the aerospace industry
- Trained over 5,000 manufacturing professionals in lean methods
- Lead 100's of Rapid Improvement Events (Kaizen)

Capabilities

- Over 15 years of full-time experience implementing lean
- Implementation team has extensive management and engineering experience
- Full suite of training workshops, covering all aspects of lean and six sigma
- Hands-on approach to implementation, through transformation programs, rapid improvement events and training workshops
- Support lean transformation with web-based project management tools.



Lean Implementation Roadmap

TRACK	OBJECTIVE	ACTIVITIES
LEADERSHIP	Ensure that the Lean initiative is lead from the top of the organization, including Mission, Vision, Master Plan and Performance Excellence measurement tools.	<ul style="list-style-type: none"> • Lean Leadership Workshop • Six Sigma Certification • Lean Dashboard • Kaizen Leader Certification • Baldrige Criteria Implementation
ENGAGEMENT	Involve the entire staff in becoming lean trainers, creating and enforcing standard work, leading process improvement activities, and achieving a high level of involvement in suggesting improvements.	<ul style="list-style-type: none"> • Team Member Engagement • Suggestion Database • Lean 101 Workshop • Standard Work • Train The Trainer Certification
ENTERPRISE EXCELLENCE	Create a Value Stream Map and Master Plan for every major value stream, and pursue both Value Stream Design projects and Kaizen Events to achieve world-class performance in all areas of the business.	<ul style="list-style-type: none"> • Lean Assessment • Value Stream Mapping • Quick Changeover • 7S and Visual Workplace • Lean Materiel Management • Value Stream Design • Kaizen Events

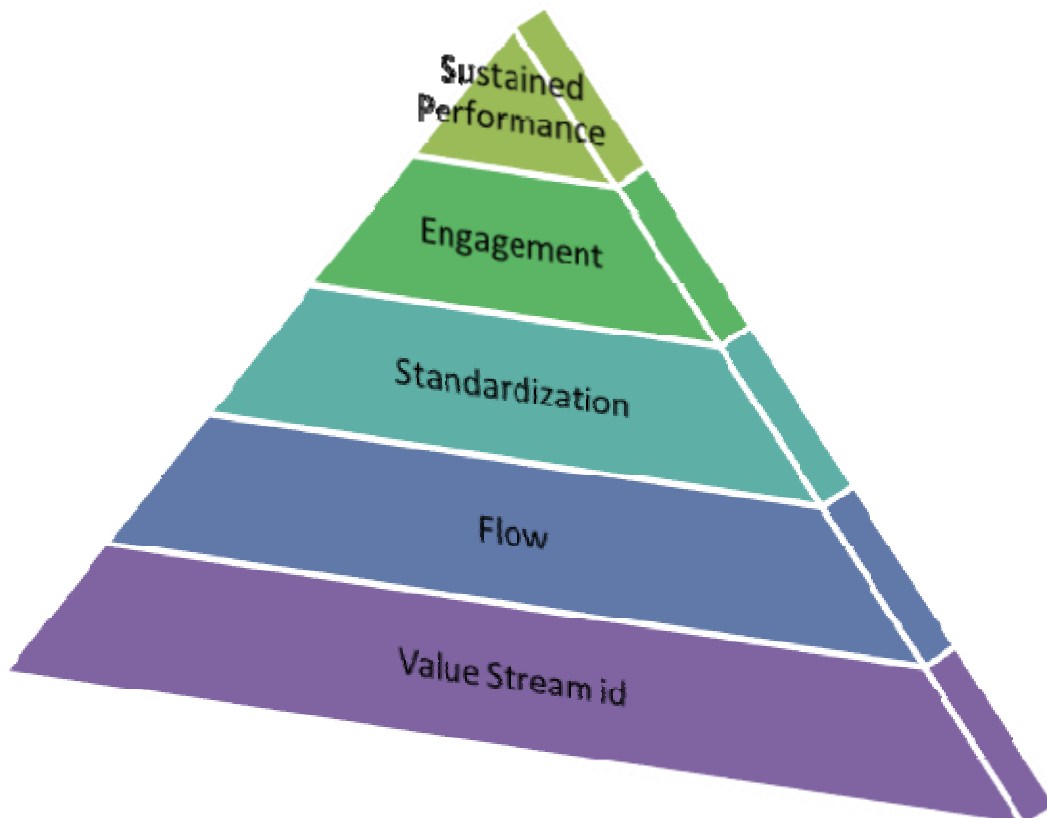


The Value Stream Maturity Model

The tools of Lean are not difficult to understand. The benefits of Lean are well known. Taking the right steps to get the most out of the tool-set is a key challenge. The Value Stream approach will enable your organization to become a Lean Enterprise.

Many Lean practitioners make the mistake of approaching Lean as a disjointed list of Continuous Improvement projects or Kaizens, and are sometimes disappointed when the benefits don't flow to the bottom line. The Value Stream approach is different. We propose to take an *entire* value stream view, rather than focusing on the individual processes, as a jumping-off point for our improvement efforts. This will ensure that all continuous improvement efforts are in alignment with the value definition. The maturity of a value stream can and should be measured.

- **Level 1:** The value stream is identified. Value Stream Owners and Champions are designated.
- **Level 2:** The key flow principles of linking and balance are put in place by conducting a thorough review and possible re-design of the whole value stream.
- **Level 3:** Processes in the optimized value stream are standardized using Standard Work tools.
- **Level 4:** The team members in the optimize value stream conduct continuous improvement activities to ensure the sustainability of the changes.
- **Level 5:** At least 12 to 18 months of sustained performance for the entire Value Stream.



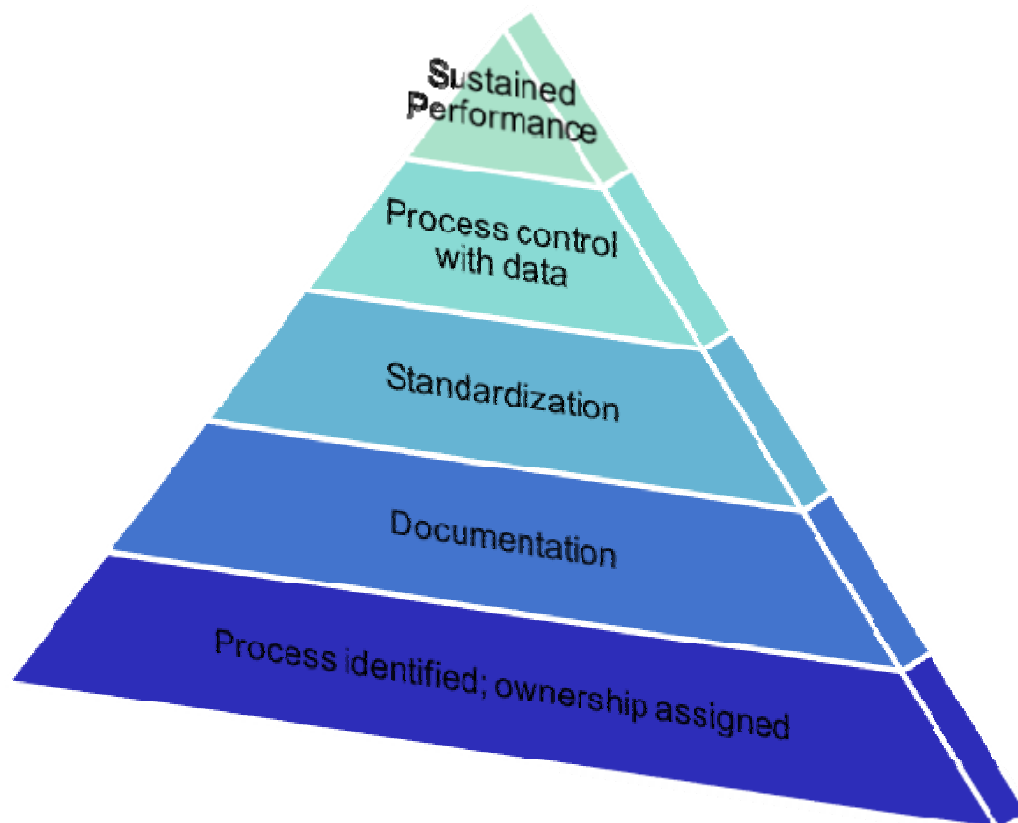


Process Excellence Rating System

Every Value Stream is made up of individual processes, and a Value Stream Map documents these processes and shows how they are connected. A high-performing Value Stream will be driven by the maturity of the required processes, which can be assessed and measured.

Once we have achieved an initial leap in performance by linking and balancing the Value Stream, we are not finished. In conjunction with our Value Stream approach, we will need to focus on achieving a high level of maturity in the individual processes on our Value Stream. Not only do we continue to eliminate waste, standardize the work, improve quality and cycle time, but we are creating a solid foundation for the application of on-going process refinement or *kaizen*. We measure the maturity of a process as follows:

- **Level 1:** The process is identified on a Value Stream Map. Process Owners and Champions are designated. Initial documentation exists.
- **Level 2:** The process is standardized through the creation of a Standard Work Definition, which identifies the agreed-upon best way to perform the process at the work instruction level.
- **Level 3:** The Standard Work Definition is deployed to the workforce through formal training, certification and enforcement of standard work.
- **Level 4:** The team members in conduct continuous improvement activities to ensure the improvement and sustainability of the process, using data.
- **Level 5:** At least 12 to 18 months of sustained performance for the process.



7S and Visual Workplace

The concept of elimination of waste by improving housekeeping via the 5S set of tools, has been applied successfully many times over. This workshop addresses the implementation of 5S plus two key elements in today's business environment, Safety and Security.

Workshop Description

This workshop starts with the basics of organization as it applies to factory settings and their specific requirements. This workshop uses the time-tested method of hands-on learning. The time is organized in short lecture segments followed by actual mini-kaizens carried out by the students. The instructor roams the teams as they complete their projects and prepare a succinct presentation to share the results of their work.

Agenda

- Introduction to Lean—What is Lean. How does it apply to your company
- Quick and Easy 5S—The garage story
- First S: *Sort* – Why Sort; Where to sort; 5 things to remove; red-tagging
- Second S: *Straighten* – Some simple rules; A place for everything; Visual Management
- Third S: *Shine* – Remember your mother; 5 simple steps; Cleaning means Inspection
- Fourth S: *Standardize* – What is it; What if we do not; How to do it; Prevention
- Fifth S: *Sustain* – How to sustain; Tools to sustain; What is we do not
- The Five Levels of Excellence
- Sixth S: *Safety* – Ergonomic considerations and rules; Infection control; Safety checklists
- Seventh S: *Security* – Impact of changes on plant security; Security checklist

Who Should Attend

Every member of the company should attend this workshop. The highest priority must be given to the members of the implementation teams. We recommend:

- Supervisors and Team Leads
- Planners and Production Control Personnel
- Material Handlers and Logistics
- Accounting and Office Personnel
- Senior and Junior Management
- All operators and direct employees
- Human Resources

Duration

3 days



Lean Factory 101

Although Lean is a top-down strategy, lead by senior leadership, it also requires the involvement and engagement of the entire workforce. A lean initiative cannot be called successful unless a high level of training and participation from the staff is achieved.

Workshop Description

This 1-day workshop is an introduction to lean thinking for the entire company. Through a combination of classroom training and hands-on exercises, direct and indirect employees will acquire an initial exposure to the methods and tools that will be used in the on-going lean transformation. This workshop should be considered a core requirement, and a prerequisite for further workshops, kaizen events and lean activities.

Agenda

- What Is Lean, and how does it apply to our company?
- Identifying and Eliminating Waste
- What are flow and pull, and how do they apply?
- Standard Work in a lean environment
- Introduction to 7S
- Process Improvement, Engagement and Kaizen
- Next steps for involvement in the lean transformation

Who Should Attend

Every company employee should attend this workshop, if they are not already participating in the Lean Leadership Workshop. The highest priority must be given to the members of the implementation teams.

Duration

1 day



Lean Material Management

Companies often have millions of dollars of materials and supplies on hand. This material is not only a significant consumer of cash, but improper management causes delays in production, drives excess cost and can be a major contributor to muda or waste within our operations.

Workshop Description

The *Lean Material Management Workshop* trains participants in the application of world-class supply and material management methods to the lean environment. There are a variety of different material control methods, and students will understand the appropriate method to use for all common production materials.

Agenda

Participants in the Lean Material Management Workshop will be capable of performing the following tasks:

- Apply the proper lean material management method to production supplies and materials
- Understand how to calculate target material quantities, and manage high inventory turnover
- Implement a material pull system, including the setting up of a material supermarket
- Maintain a Kanban system and adjust sizing when required
- Maintain Inventory Record Accuracy in excess of 98%
- Improve and control inventory turnover

Who Should Attend

Participants should include representatives from the material organization, purchasing, Information Technology, production planning and management. We recommend:

- Purchasing
- Information Technology
- Production Planning
- Material Handlers
- Inventory Control and Warehouse Personnel
- Material Managers

Duration

2 days



Standard Work

It is a well known fact that one of the best ways to ensure quality outcomes is to standardize process steps. Some professions could not be carried out by humans without standard work documents. If you still have doubts, ask an airline pilot.

Workshop Description

Standard work is an idea that has its modern origins in the Scientific Management movement at the beginning of the 20th century, and it is still up-to-date and critically important. Standardization is a foundation lean requirement for high productivity, high quality, elimination of waste, training for new employees, production and resource planning, and continuous improvement.

Agenda

- Quick refresher on Lean
- What is a standard – Different types of standards and their application
- Standardization and Standard Work – Definitions and uses
- Documenting Standard Work – Tools
- Scouring the work steps – Value-adding work and non-value-adding work
- Graphic Work Instructions – Creation and maintenance
- Ties to FMEA
- Team Projects
- Team Report-out

Who Should Attend

Every member of the management, engineering and supervisory team should attend this workshop, along with key subject matter experts from the shop floor.

Duration

3 days



Value Stream Mapping

The flow-charting technique of Value Stream Mapping has become a widely-accepted and widely-used method for document a Current State process, indentifying waste and process improvement opportunities, and creating a vision of the future called the Future State Value Stream Map.

Workshop Description

This hands-on workshop has two main objectives: to train your team in the use of the Value Stream Mapping method, and to create Current and Future State Value Stream Maps for your key value streams. Through the process of developing the Future State, participants will also identify waste in the current value stream, and be guided through the lean methods to improve a process.

Agenda

- Training in the Value Stream Mapping method
- Exposure to Value Stream Mapping software
- Creation of the Current State Value Stream Map
- Identification of waste and brainstorming session to improve the value stream
- Creation of the Future State Value Stream Map
- Documentation and inventory of process improvement suggestions, to be incorporated into a Master Plan

Who Should Attend

This workshop should be attended by staff members who are able to contribute to a discussion about the Current and Future State Value Streams within the company. This will normally include managers, supervisors, engineering and production control. It is also advisable to have some participants from outside of the target area, to provide some outside input.

Duration

3 days



Quick Changeover Kaizen

From a Lean perspective, all changeover activity is *muda*, or waste. While it often cannot be eliminated completely, our goal should be to reduce changeover to a minimum, and various methods have been developed to achieve this. Quick Changeover in a lean environment would be applicable to machine intensive environments, as well as to assembly lines or office environments where some preparation for the next product or service is needed.

Workshop Description

One of the early challenges for lean practitioners was how to deal with long changeover times from one product (or service) to another. Out of this effort to improve came a set of techniques and methods that can be applied to any environment, to achieve radical reductions in changeover times. This Quick Changeover Kaizen combines training and a concrete improvement opportunity into a 4-day rapid improvement event. Participants will not only achieve real-time benefits, but also gain hands-on experience that can be applied to other areas of opportunity.

Agenda

Pre-Event: Assessment and creation of the activity Master Plan

Day 1: Formal changeover training and discussion. Introduction to the Quick Changeover method. Data collection and analysis. Complete process documentation.

Day 2: Apply Quick Changeover techniques to data, and brainstorm process improvement suggestions. Create implementation plan.

Day 3: Implementation, operator training and "line live"

Day 4: Finish up, management presentation and team celebration

Who Should Attend

Participants in the Quick Changeover Kaizen should include members of the target area department that know the current process, a certified Kaizen leader and co-leader, and several team members from outside of the target area department.

Duration

4 days



Team Member Engagement Program

Success, it is said, requires both skill and leverage. The leverage that we achieve in our Lean initiative will come from the engagement of the entire staff, in the form of many small suggestions for improvement. This involvement won't happen by itself. It will require leadership.

Workshop Description

This workshop is the starting point for an on-going activity of soliciting, receiving, evaluating and implementing process improvement suggestions from all company employees. This activity is linked to several other programs in this catalog: the Train The Trainer Certification, and the Employee Suggestion Database.

Agenda

- Train in the Quick and Easy Kaizen method
- Train in the use of the Employee Suggestion Database system
- Finalize design of manual suggestion form
- Create suggestion tracking and KPI measurements
- Develop roll-out schedule for employee training
- Create announcement material for company newsletter and website
- Complete certification in the Train The Trainer module for all prospective trainers
- Set up visual status boards for each logical area or department

Who Should Attend

The primary participants in this workshop will be the leaders of the process improvement effort. This will include supervisors and team leads, performance excellence staff and members of the senior leadership team.

Duration

4 days



Company Lean Assessment

The first step in any journey is to acquire or create a map. This data gathering and mapping activity provides the basis for a plan to guide and track the progress of your Lean implementation.

Activity Description

This consulting activity has the objective of gathering the necessary information to develop a thorough plan for the adoption of Lean at the client site. Through a combination of training, interviews, and data gathering and processing, a team composed of 2 consultants and several members of the company will create a picture of the current state. After a brainstorming session a new Future State will emerge and its benefits accounted for.

Agenda

- Meeting with Executive Team
- Meeting with Lean Champion(s). Review and adjust submitted agenda
- Meet the activity participants. Conduct brief interviews.
- Brief introduction to Lean Thinking
- Brief training session on Value Stream Mapping
- Develop Current state
- Brainstorm opportunities for improvement; document and prioritize
- Develop Future State
- Estimate Financial benefits
- Estimate Qualitative benefits
- Identify All Value Streams, Processes, Champions, and Process Owners
- Identify implementation resources
- Estimate implementation timelines
- Report-out presentation

Deliverables

- Current and Future State Value Stream Maps
- Registry of Improvement Projects
- Time-phased implementation plan
- Estimated Financial Benefits
- Estimated Qualitative Benefits
- Setup of Lean Metrics Dashboard

Duration

5 days, 2 Consultants



Lean Leadership Workshop

The Lean approach to continuous improvement is a bottom-up approach that necessitates Top Management support. The world is littered with companies that implemented very good tools that failed because of lack of management commitment.

Workshop Description

The purpose of this week-long workshop is to train the leadership team on the concepts of Lean in a safe and hands-on environment. A group of 8-to-16 upper-level managers work together for a whole week in teams of 4 learning and implementing the basics concepts of Lean. By the end of the workshop, the leaders are able to understand and guide Kaizen events within their departments and across multi-disciplinary teams.

Syllabus

- Day 1—AM: **Training session.** Lean 101 and Kaizen Leader Training. Form teams; identify initial opportunities for improvement; develop PM plans
- Day 1—PM: **Kaizen session.** Teams of 4 conduct initial projects following the Kaizen model. Teams prepare presentation for next AM
- Day 2—AM: Teams report prior day's progress. **Training session.** 7S and visual management; teams remain; identify 7S opportunities for improvement; develop PM plans
- Day 2—PM: **Kaizen session.** Teams conduct 7S projects following the Kaizen model. Teams prepare presentation for next AM
- Day 3—AM: Teams report prior day's progress. **Training session.** Standard Work and Q&E Kaizen; teams remain; identify Standardization opportunities for improvement; develop PM plans
- Day 3—PM: **Kaizen session.** Teams conduct Standardization projects following the Kaizen model. Teams prepare presentation for next AM
- Day 4—AM: Teams report prior day's progress. **Training session.** Value Stream Mapping (VSM)
- Day 4—PM: **Kaizen session.** Whole class develops a Current State VSM. Brainstorming session
- Day 5—AM: **Kaizen session.** Conclude brainstorming session. Develop Future State VSM. Document opportunities for improvement
- Day 5—PM: Develop and deliver report-out presentation

Who Should Attend

Every member of the company leadership team, including senior managers and directors, managers, supervisors and leads.

Duration

5 days



Value Stream Design

Following the Value Stream approach, we must first design the value stream and supply it with the necessary resources, policies, procedures, structures, and values. After a linked and balanced Value Stream is in place, we focus on the individual processes.

Activity Description

This project will be divided into three main phases, data gathering, flow process design, and flow processes live. During these phases, the implementation team will delve deep into the details of the operation of the selected value streams to identify processes and individual elements of work as well as to develop policies and procedure to ensure the sustainability of the implemented changes.

Agenda

Phase 1: Data Gathering

- Value Stream Mapping. Current and Future state
- Processes, Products/transactions, Process Flow Diagrams, Process Maps
- Standard Work definitions. Resource definitions

Phase 2: Flow Process Design

- Resource calculations. People, Machines, Balancing
- Layouts: Conceptual layout; Final Layout
- Deployment plan. Review feasibility with Facilities, Leadership, Environmental Services
- Regulatory review
- Training plan

Phase 3: Flow Process Live

- Train team members
- Exercise new value stream design. Stress tests
- Sustainability plan. Calculation of realized benefits
- Final Report-out to Leadership team

Deliverables

- Current and Future State Value Stream Maps. Registry of Improvement Projects
- Detailed design of selected value stream
- Training for all employees in value stream and support functions
- Policies and procedures to sustain changes
- Kickoff of Continuous Improvement Meetings
- 7S and Standard work in at least 3 processes in the value stream

Duration

15 days, 1 Consultant



Process Improvement (Kaizen)

Most processes have a substantial amount of non-value added steps of work that are waste. This waste has a negative internal financial impact for the company as well as potentially impacting the opportunity to build new customers and sales.

Activity Description

A continuous process improvement event must be carefully planned and its objectives clearly communicated to all involved. During a kaizen, a team of dedicated employees and outside consultants devote a block of time to improving a process. Solutions are identified, team members are trained, and the ideas are implemented by the end of the project.

Agenda – Typical 5-Day Kaizen

Day 1: The Current State

- Training on the Kaizen subject
- Definition of current state—Possible use of Value Stream Mapping, Flowcharting, etc
- Brainstorm opportunities for improvement

Day 2: The Future State

- Identify ideas to implement within the Kaizen event
- Develop the future state, Calculate benefits, Develop deployment plan, Initiate deployment

Day 3: Implementation day

- Physical changes, Train team members in target area
- Start new process

Day 4: Exercise new process

- Observe new process
- Note opportunities for improvement

Day 5: Tweak and Report Progress

- Fine tune new process, Document opportunities and benefits
- Prepare and deliver report-out presentation

Deliverables

- Current and Future State Value Stream Maps. Registry of Improvement Projects
- Fully implemented target area
- All team members in target area trained
- New opportunities for improvement documented
- 7S assessment

Duration

5 days, 1 Consultant



Train The Trainer Certification

An essential element of a Lean Enterprise is a high level of *engagement* of the entire workforce. It follows that every employee needs to be trained in the basics of Lean, and given the tools they need to fulfill this role. This basic training is best done by internal company resources.

Workshop Description

The *Train The Trainer* program will train a core group of internal instructors to present four core lean subjects. In order to earn a certificate, the instructor candidate will need to demonstrate an understanding of the subject matter, pass a knowledge check quiz, and be able to present the training material professionally. A workbook is provided with instructor notes. Some supplemental study may also be required. It is assumed that the prospective trainers already have a basic knowledge of Lean.

Agenda

The four disciplines that will be covered in this 3-day certification program are:

1. Introduction to Lean
2. Organization and Housekeeping (7S)
3. Team Member Engagement
4. Value Stream Mapping

An advanced certification program includes the following topics:

1. Problem Solving (Simple Six Sigma)
2. Error Proofing (Poka Yoke)
3. Finding and Eliminating Waste
4. Standard Work Definition

Who Should Participate

The Train The Trainer Certification Program is open to any employee who has the desire and ability to become an internal trainer. The candidate should be a graduate of the Lean Leader training workshop, and have participated in at least three Kaizen workshops.

Duration

3 days



Baldrige Criteria Implementation

The best reason for using the Baldrige Criteria is to support your lean and six sigma efforts towards continuous improvement, to strive for ever-higher levels of excellence in the organization.

Program Description

Baldrige Award recipients outperform their peer companies in results. How do they do it? They adopted and followed the Baldrige Criteria for Performance Excellence. They persistently worked on continuous improvement and alignment with the Criteria as a way to manage the organization. The program is initially targeted to top leaders in the organization and to selected managers and employees that will serve as Baldrige category leaders.

Program Outline

1. *Education and Values Alignment with Senior Leadership*
 - a. Core values and principles
 - b. Assessment of organization's alignment with Baldrige values
 - c. Meaning of the seven criteria
 - d. Best practices examples from award recipients
 - e. How to assess your organization
 - f. How to evaluate results
 - g. Develop an assessment and implementation plan
2. *Performance Assessment.* Complete assessment by our consultants teaming up with your internal examiners to identify your strengths and opportunities for improvement in:
 - a. Leadership
 - b. Strategy Planning and Deployment
 - c. Customer Focus
 - d. Measurement, Analysis, and Knowledge Management
 - e. Human Resource Focus
 - f. Process Management
 - g. Results
3. *Award Application Writing.* Regardless of your interest in an award, apply confidentially to the state award for feedback from a team of trained examiners, highlighting strengths and opportunities to improve.
4. *Gap Closure and Systems Alignment*
 - a. Prioritize performance gaps
 - b. Design interventions for breakthroughs in critical performance areas
5. *Evaluation and Renewal*
 - a. Re-Assessment after improvement interventions
 - b. Systems to sustain improvements
 - c. Recognition
 - d. Planning for next cycle



Kaizen Leader Certification

A Rapid Improvement or Kaizen event is a significant investment of time and effort, and it is important that the leaders of these events be well-trained in how to prepare for, run, report on and follow-up on improvement activities. This certification is a requirement for Kaizen Team Leaders and Co-Leaders, and is also strongly recommended for Kaizen Event participants.

Workshop Description

This two-day certification workshop is organized around one or more (depending on the number of participants) mini-Kaizen events, areas of improvement that are small enough to be completed with the two-day period. Participants will have the opportunity to go through all of the elements of a Kaizen event, including preparation checklists, assigning roles and responsibilities, running the event, creating a formal presentation, and following up on any remaining action items. Activities include a formal report-out on Day 2 from each team. Participants will need to pass a final exam in order to achieve certification status.

Agenda

- Module I: Roles and Responsibilities
- Workshop I: Selecting Team Leaders and Team Members
- Module II: Preparing for a Kaizen Event
- Workshop II: Selecting the Kaizen Area and Data Collection, Value Stream Mapping, Process Data
- Module III: Running a Kaizen Event
- Workshop III: Brainstorming Improvements and Implementation Plan
- Module IV: The Kaizen Report-Out
- Workshop IV: Implementation
- Module V: Kaizen Event Follow-Up
- Workshop V: Formal Report-Out and Team Celebration

Who Should Attend

Pre-requisite: Participants should be willing and able to lead Kaizen events. They need to have attended either the 5-day Lean Leader Workshop or the 1-day Introduction to Lean workshop so they understand the concepts of lean/flow.

Duration

2 days



Six Sigma Green Belt Certification

Lean and Lean Six Sigma applications require an understanding of how the tools and methodologies translate to the internal processes of production and office processes. Once applied, the possibilities are endless.

Description

Lean Six Sigma uses Define-Measure-Analyze-Improve-Control (DMAIC), a five-step approach to process improvement. Green Belt training will enable students to learn the DMAIC tools that will enable them to focus on improving the patient experience by making sure your processes consistently deliver the desired results.

The greenbelt certification requires eight days of experiential, case and classroom training focused on the unique attributes of the company environment. A project mentored by a Leonardo Group Black Belt will also be required to earn a certification.

Syllabus

Introduction to Six Sigma
The DMAIC improvement strategy

Define

Project selection, scope and charter
Kano
Process mapping, SIPOC
FMEA
Define gate criteria (closing the define phase)

Measure

CTQ, CTC, CTS
Data collection, scales, distributions, yields
Measurement systems
SPC- the concept of statistical control (process stability)
The implications of instability on capability
Measure gate criteria

Analyze

Scatter plots
7M tools
Run Charts
Distributions
Box plots
Confidence Intervals
Design of Experiments (DOE)- an introduction
Analyze gate criteria

Improve

Benchmarking
SPC- Process behavior charts
Change tools
Project planning and management (improvement planning)
Improve gate criteria

Control

Process control planning matrix
Process FMEA
Process control plan
Control gate analysis

Duration

8 days plus complete a project



Six Sigma Black Belt Certification

Six Sigma is about getting results. Organizations participating in the application of six sigma methods enjoy higher incomes through increased revenues and the lowering of operating costs.

Description

Each time a process does not deliver what the customers expect or require, this is considered a defect. For any company involved in the six sigma methodology, the ultimate objective is to deliver to customers what is critical to them each and every time. The goal is to produce "virtual perfection" from both the patient's and physician's perspective.

Six Sigma is a data-driven approach that uncovers the root causes of defects in processes and leads to their elimination. When these process anomalies are eliminated, costs decline and customer satisfaction improves. And, because Six Sigma is focused on continuous improvement, it becomes a way of doing business rather than just a quick fix to a problem.

Syllabus

Distributions and Data Analysis

- Chi Square
- Hypothesis Testing
- F Distribution
- Hypergeometric
- Bivariate
- Exponential
- Lognormal
- Analysis of Variance (ANOVA)

Tools to Control Variation

- Control chart concepts
- XmR Charts
- Attribute Charts
- Pre-Control

Design of Experiments

- Intro to DOE
- Full Factorial Designs
- Fractional Factorials
- Analyzing Fractional Factorials
- Taguchi Design

Project Management

- Project Plan and Charter
- Team Sociology-team stages
- Team Dynamics- team facilitation
- Matrix diagrams
- Activity network Diagrams
- Process Decision Program Charts

Duration

10 days of experiential, case and classroom training focused on the unique attributes of the company environment. A project mentored by a LGA Black Belt will also be required to earn a certification.

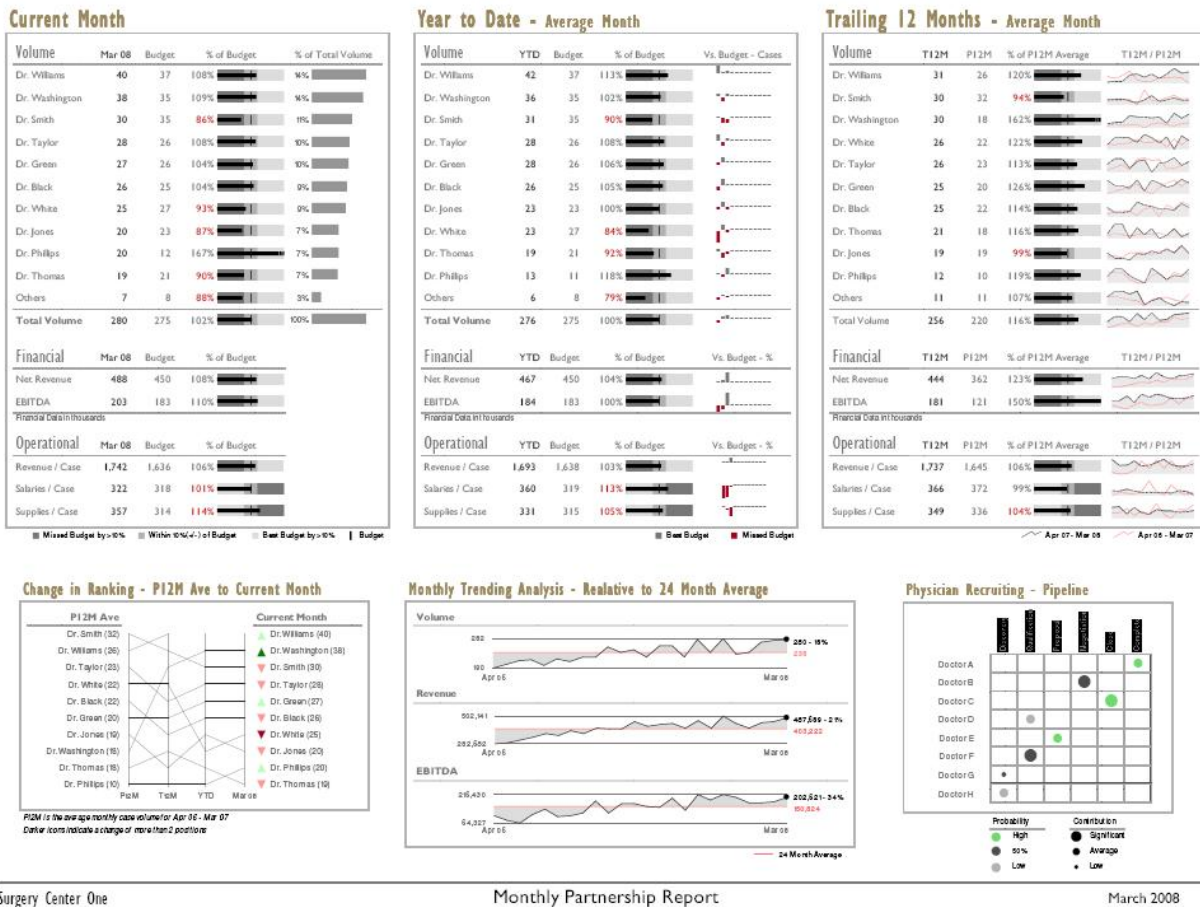


Lean Management Dashboard

“What Gets Measured, Gets Done”. This slogan applies to our company lean initiative as well as to our day-to-day operations management. Fortunately a visual display of Key Performance Metrics, along with trend analysis capability, does not need to be expensive or complex.

Tool Description

The Lean Management Dashboard is an Excel-based front-end tool combined with a secure server-based repository of performance data. An example of this type of dashboard is shown below, created for a surgery center. The Excel spreadsheet is enabled to pull information from the server environment, and display it in a user-friendly manner. From this, specific actions can be taken to correct negative trends and maintain continuous improvement.



Surgery Center One

Monthly Partnership Report

March 2008

