Administrative Lean Moves Forward, Worldwide

Actuant Corporation standardizes the process of implementing a continuous improvement culture.

Lea A.P. Tonkin

Business process improvement in the office can net higher productivity, free cash flow, and contribute to the organization's competitive advantage — as much as, if not more than plant floor process improvements. For Actuant Corporation, a $1.67 billion company based in Butler, WI, the company's LEAD (Lean Enterprise Across Disciplines) principles and practice enable employees in all areas of the organization, in every location, to use continuous improvement (CI) in day-by-day administrative activities. For Actuant, office lean is much more than the means to streamline existing operations. They're growing by acquisition even as they strive to boost performance in existing facilities. As each acquisition comes aboard, the company allots a 100-day window to establish lean understanding and culture required to support overall business goals. A major part of the training and education rolled out at new and existing facilities focuses on improving office practices.

"Sixty percent of the cost of meeting customer needs is administrative," said Patsy Hardt, CI leader — business process support. Hardt and several other Actuant representatives shared suggestions for ramping up administrative performance results and for replicating the process of CI cultural change in multiple U.S. and overseas locations during a recent AME workshop in Glendale, WI. She noted that 50 percent of Actuant's sales are outside the United States, and that foreign manufacturing capacity is approaching 50 percent — adding to the need for a standardized, portable process for CI implementation.

Building a Culture of Daily Continuous Improvement

Creating the means to implement and sustain office lean in a wide range of businesses, from high-force hydraulic tools to motion control systems, had challenged the organization. Although they had adopted lean concepts in

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In Brief

Actuant Corporation's LEAD (Lean Enterprise Across Disciplines) training and implementation help the company roll out and replicate administrative line improvements in diverse operations around the world.

1997, leadership recognized that their lean implementation process did not support long-term, organization-wide progress. Several years ago, they began to develop a standardized process, blending core lean tools and concepts as a more effective means to roll out and sustain process improvement gains across the enterprise. Their knowledge and culture-sharing change implementation process is grounded in Actuant's guiding principles. (See Figure 1.)

Senior managers sought ways to progress from the "toolbox" improvement approach (5S, poka yoke, SMED [Single Minute Exchange of Die], TPM [Total Productive Maintenance] etc.) to a more structured process that would lead the organization toward a culture of daily improvements and strengthened leadership in all of its operations. They realized that a sustained CI process must contain three elements:

- Business organization and management (business and organizational systems, functional alignment)
- Leadership and culture (leadership, people, culture and policy, and change management)
- Improvement strategies (process speed, product quality, and process performance).

Two years ago, Actuant launched its corporate LEAD office to drive CI in all three arenas. It is powered by a team of corporate CI specialists and business unit-level CI partners. They work with both operations and administrative employees in diverse operations around the world as they teach employees to eliminate waste in their processes and strive to create a sustainable CI culture. The corporate LEAD steering committee includes select executive, business unit, and human resources leader-

Actuant Corporation's Guiding Principles

Create flow in all your business processes. Flow is at the heart of our continuous improvement process. Mobilize all resources within your span of control to make your processes flow. An important part of creating flow is leveling your workload. Remove obstacles and shorten leadtime by eliminating waste (non-value-added activities). This leads to the best quality, the best cost, and the best delivery time for the customer. Recognize that there is an up and downstream to your flow, which also includes your supply chain.

Listen to the customer. Internally or externally, everyone has a customer. Focus on the needs of your customer and communicate your needs as a customer.

Involve all employees. Let employees tell what they need from you to do a better job. Show respect by involving all employees in the continuous improvement process.

Go to the workplace and see for yourself. Be in touch with the core processes. Know what is going on. Go to the Gemba (actual workplace) frequently.

Standardize all processes and tasks. A standard is the documented way of doing the work. Without standards, every improvement is another variation, which can be used at will. Use visuals to control processes. Define a clear escalation process for when a standard fails or is not maintained.

Stop processes immediately if standards are not kept. Create an environment where problems surface. Stop the process and start the escalation process. Make issues visible. Give urgency to problems. Solve them by eliminating the root cause. Don't create workarounds. Get quality right the first time.

Make decisions after thorough investigation and consideration of all possible alternatives. Implement rapidly. Work on consensus and base the decision on facts. Challenge ideas and take time to decide together without sacrificing the sense of urgency needed to make timely improvements. Once decided, implement rapidly.

Mentor, challenge, and facilitate. Mentor your people by the guiding principles. Make sure they use them in all processes. Challenge their ideas and facilitate improvements. Do not dictate.

Create conditions in which employees can continuously come up with improvements. Become a "Learning Organization." Exhibit passion for LEAD. Create an open culture. Allow for time to review processes and to come up with improvements. Make generating ideas part of your processes. Organize immediate follow-up and recognition. Make improvements the new standard. The journey never ends.

Figure 1. Actuant's guiding principles set the pace for worldwide CI process improvement and cultural change.

About Actuant Corporation

Actuant, headquartered in Butler, WI is a diversified industrial company with operations in more than 30 countries. The Actuant businesses are market leaders in highly-engineered position and motion control systems, rope and cable solutions, and branded hydraulic and electrical tools and supplies. Since its creation in a spinoff in 2000, Actuant has grown its sales from $482 million to $1.66 billion in fiscal 2008. The company employs a workforce of approximately 6600 worldwide. Actuant trades on the NYSE under the symbol ATU. Information on Actuant and its business units is available at the company's website www.actuant.com.

ship along with Jeff Baldwin, LEAD director. The steering committee evaluates and promotes LEAD efforts, in line with corporate business goals. The CI specialists train and mentor the employees who will lead CI efforts throughout operations in the United States, Europe, China, Mexico, and other locations.

Taking LEAD "Local"

Actuant's LEAD initiatives reflect enterprise-wide objectives, yet CI project selection is "local." Rick Ruzga, Actuant's global LEAD support leader, explained that each business unit has a steering committee that evaluates and selects the business processes needing improvement. Anything from order fulfillment to plant openings/closings may be tagged for an improvement process. Each business unit has a LEAD coordinator supporting the directive of its steering committee. In turn, LEAD facilitators in human resources, finance, customer service, information technology (IT), and other functions support the facilitation of LEAD events for these administrative functions.

Among the many Actuant business units, there are 100-plus trained LEAD facilitators. Each one receives three weeks' training in LEAD foundations and event facilitation. Each facilitator is expected to lead four events a year. The business process champions focus on administrative process improvements. The business champion is a part-time role; these individuals assure the integration of business process improvements into the LEAD process, drive a LEAD culture in the office, own the prioritization and execution of the business process event plan, etc.

Start with the Basics

Moving on to the specifics of getting a "lean in the office" improvement project launched, Actuant's Dave Buck noted that waste reduction in the office can start with running effective and efficient meetings. "Why are we here and what are we supposed to achieve?" is a great leadoff question to start any meeting.

Buck, a CI leader, U.S. support, counseled that Actuant's SPACER tool is an effective way to get project meetings off to a good start. SPACER covers the basics: **S**afety and housekeeping (where are the exits, what are emergency procedures, etc.), **P**urpose (review/learn improvement tools, or establish a visual office process, etc.), **A**genda (for the meeting, with timing), **C**ode of conduct (be respectful of others, everyone participates, etc.), **E**xpectations (what the participants expect to get from the meeting; that is, what will make it valuable to them), and **R**oles and responsibilities (be on time, it's everyone's job to help the learning process).

Using Makigami Mapping

Many of Actuant's LEAD concepts and tools (visual office, 5S, standard work, eliminating waste, policy deployment, flow, etc.) are familiar to lean practitioners. One exception may be the Makigami (literally, "roll of paper" in Japanese) process mapping tool. It is a paper and pencil tool used to analyze, visualize, and communicate any business process. The Makigami map differs from a value stream mapping (VSM) map in that it places the processes into "swim lanes" by function along with related documents to make concurrent processes more visible. "It is specifically suited for office environments where products are not visible or tangible and where the flow of information involves wait time, handoffs, and transfers," Buck said. "It is designed to detect non-value-added (NVA) activities and to encourage creation of standard work for all processes."

Participants in Makigami mapping process improvement sessions (that typically last three days) learn to use metrics to see the waste: throughput time, transfers (such as handoffs), and output errors, as well as value-added (VA) time (in the customer's eyes). They map the process (order processing, for example) to see the movement of information, product, and people

between various process steps. They identify who is involved in these steps, what triggers downstream steps to work, whether there is standard work for each step, whether additional resources are needed if the scope of the work expands, and how waste will be attacked.

Preparation for a Makigami improvement event is the key to its success. Several weeks ahead of the event, participants identify:

- *The event objective:* improvement opportunities or improving standard work.
- *Project scope:* must be linked to business goals and be narrow enough so that event participants can impact performance.
- *Data collection:* templates are provided for participants to gather process data and create a bird's eye view (BEV). The BEV is a broad overview of the process that shows the output of every department involved in the process and is useful in determining project scope and data collection needs. Asking, "What will an improved process look like?" or, "How will a better process work?" are helpful inquiries.

Standard "getting started" steps are spelled out for project participants at three milestones: five weeks, three weeks, and one week ahead of each Makigami mapping event. (See Figure 2.) This rigorous event preparation process has been refined over time by the LEAD corporate team to give participants their best opportunity for achieving significant process improvements, said Buck. For example, event planners and participants develop an event scope, obtain authorization for the event, review data collected, determine what training is required, and define event boundaries. A critical step is holding a

final pre-event meeting with all team members the week before the event to confirm scope, data, roles, and responsibilities.

"We get together so that everyone is on the same page as far as how the Makigami tool works and what are the tasks and timing that need to be accomplished," said

Buck. He referred to SMART goals (see Figure 3) as participants' best assurance that they will achieve dramatic throughput time reductions, fewer transfers, reduced errors, better cycle times for new product development, or other goals set for the event.

During the event, participants

Getting Started: 5-3-1 Process

All LEAD Makigami Events require the completion of the 5-3-1 prep work to assure the success of the event based on fact based data

Some of the critical pieces of the 5-3-1 process:
1. Define Event Objective
   1. Identifying Improvement Opportunities [or]
   2. Improving current standard work
      1. Creating
      2. Reducing processing time
      3. Adding Value

2. Defining Scope
   1. Must be linked to business goals
   2. If objective is to improve standard work – Scope must be narrow enough so that impact can be achieved during event.

3. Data Collection

Figure 2. Extensive preparation sets the stage for successful process improvement during Makigami mapping events. In addition to the steps shown above, event participants conduct a lengthy series of reviews, planning, training, etc. during the fifth, third, and first weeks before the event.

SMART Goals

S	**Specific**	– The dates set for the improvement event.
M	**Measureable**	– How much? How many? When finished?
A	**Attainable**	– Attitudes, abilities, skills, and capacity.
R	**Realistic**	– Stretch, substantial, done before.
T	**Timely**	– Tangible, resourced to compete.

Figure 3. Improvement project team members use the SMART steps to clarify their goals, needed resources, and other issues.

Figure 4. Workshop participants practiced process mapping, using a diner's restaurant experience as an example.

map their current state of process steps typically followed. (Workshop participants mapped a sample process, using a customer's experience at a restaurant as an example, shown in Figure 4.) They brainstorm possible improvements — for example, developing standard work for an order process. They also create a future-state map that identifies priority projects (must do), high potential projects (high impact but difficult to implement), quick hits (low impact, easy to implement), and long-term projects (low impact and difficult to implement).

Next, the project team gains approval from standard work decision makers (in the event or on call) and creates a standard work document specifying desired process steps. They update forms and documents as needed, communicate the new process to the business, and provide any team member training needed for implementation. After a final report-out to business leaders, the project team completes an event packet (results, process audit, and follow-up items). They submit their complete event results to a LEAD coordinator and business unit leadership team to schedule needed measures/audits. Follow-up audits are critical to sustained process improvements.

Delivering What the Customer Wants

Communication display boards in work areas make LEAD improvement activities readily visible for administrative and operations personnel, said Alan Vaillancourt, CI leader, U.S. support. These boards display business metrics, upcoming LEAD events, safety, guiding principles, and other information. Results from LEAD projects are shared via an intranet website, enabling employees to learn from others' achievements.

Vaillancourt emphasized that LEAD's challenge is to reflect the voice of the customer (VOC): Determine what the customer wants and will pay for, and find the best way to deliver it. Aiming to do just that, LEAD training provided in Actuant's widespread operations includes the basics of continuous flow, TPM, kaizen events, demand pull, value stream mapping and Makigami mapping, etc. In turn, employees learn how to eliminate waste (defects, over-production, inventory, extra processing, etc.) in their day-to-day work. "Learn by doing" — team exercises focusing on the group's existing processes — as well as "management by fact" (get the data) encourage improvements that will "stick."

The LEAD team's Gijs Zomer, a CI specialist, selects monthly "best in class" projects and encourages celebration of achievements. "Our best ideas come from employees," said Ruzga. "Their enthusiasm and participation get 'pull' working in process improvements."

Improving Performance in All Areas

Among current administrative process improvement initiatives: improving the company's new product development process. Zoe Peterson, a Gardner Bender packaging engineer at Actuant's Glendale campus, shared process improvement learnings with workshop participants. Easily-posted/tracked updates on bulletin boards help engineers and others follow development of specific products and related issues such as quality, tech service, etc., she said. If there are problems

with a project (such as missing a deadline), it receives additional attention. Also posted are LEAD projects, information about alignment with Actuant's one-year and three-year goals, and related tasks and measurements.

Productivity, returns, fill rates, order entry errors, and other measurements are closely tracked at the Del City fulfillment center, also at Glendale. Employees here mail catalogs for Actuant's electrical products, but the center is largely web-based, explained Michael McCarthy, Del City customer service leader. He noted that Del City associates track their performance against corporate and work center goals, using LEAD training to handle problems as they occur. Celebrations are important, too, he said; lunches for all employees or a half-day off that mark high-performance are welcomed.

More than 90 percent of Actuant's corporate staff, including finance, has been trained in LEAD concepts. Ruzga noted that finance staff learned how to streamline the monthly closing process as a result of this training. Another example: New product development cycle times decreased, thanks to the use of standardized documents and processes. Eliminating waste from all areas in Actuant will continue, with administrative lean a key to competitive advantage.

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Lea A.P. Tonkin, Woodstock, IL is the executive editor of Target.