Chair’s Message

Happy New Year!

The Lean Enterprise Division (LED) is a global network of professionals helping individuals and organizations apply proven and leading-edge lean principles and practices to achieve dramatic results for personal and organizational success.

As the chair of the LED, I’m happy to say I’ve seen many positive changes occur that speak to this mission. On the leadership team, we have formed value streams to help better serve our membership by focusing on publications, communications, networking, and professional development. This organizational change is already improving efficiency!

We have plans to increase our networking by adding a kaizen event staffed by LED volunteers. We are in a major effort to revamp many of our communication collaterals to focus on members. Our team is stronger than ever and always here to assist our members.

I always want to hear our members’ concerns and what they need from us. As the chair of a membership organization, I know ultimately I am here to serve our members. Given that, the office of the chair—composed of me, along with the immediate past chair Frank Murdock and chair-elect Chris Hayes—has restructured many of our committees to better focus on our member’s needs and remain open to any innovations you might suggest.

Going forward, we hope to continue our efforts to work with local universities to attract more students and offer internships as well as mentoring opportunities for our senior members.

I am proud to support an organization whose vision is to create a world where everyone, everywhere works together to apply lean principles and methods to achieve their personal and organizational goals.

We hope that you support our vision and mission, and continue to enjoy the many benefits of membership with the Lean Enterprise Division.

Terra Vanzant Stern, Ph.D.
2015–2016 Lean Enterprise Division Chair

About Lean Enterprise Division Chair

Terra Vanzant Stern, Ph.D., PMP, Six Sigma Master Black Belt, is the chair of the Lean Enterprise Division and is a principal of SSD Global Solutions, Inc., a company devoted to increasing critical thinking skills by applying lean and Six Sigma concepts. She is the author of Lean Six Sigma International Standards and Global Guideline, now in its second edition, as well as other books and articles on Lean Six Sigma, leadership development, and critical thinking.
Letter From the Editor

Hello Everyone!

I am the new editor of Lean Enterprise Division (LED) News—a true déjà vu for me. A long time ago, I served as editor of my engineering university’s magazine, which turned out to be a very enjoyable experience indeed. Being a traditional educational institution from colonial times, King’s English was the demanded standard of prose writing. In those days, “sitting in a chair vs. sitting on a chair” or “having tea vs. drinking tea” defined the bleak line between success and failure, where great ideas were often sacrificed on the altar of grammatical correctness—perhaps with the exception of anything quoted from Sir Winston Churchill or George Bernard Shaw’s writings.

Working with the LED leadership, I am revisiting priorities for enhancing the popular appeal of the newsletter. I am soliciting your active input and feedback in the spirit of issho ni (all of us together). In an ideal form, the LED newsletter will be an accurate reflection of its readership’s true value proposition and an indispensable resource for innovative lean ideas; for knowing about unique applications of lean tools; and knowledge sharing about future trends in designing and launching lean enterprises.


Thank you for taking the time to read this issue of LED News. I hope you had the opportunity to stop by our booth at the 2016 ASQ Lean and Six Sigma Conference on February 29 – March 1 in Phoenix, AZ. Alternately, you can reach me anytime you wish at javed.cheema@altarum.org.

Looking forward to seeing you or hearing from you soon.

Javed M. Cheema
Editor

Volunteers Wanted!

Contact membership chair Matt Jones at matt@optimumoutput.com if interested in volunteering.

UPCOMING WEBINARS

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 13</td>
<td>George Trachilis</td>
<td>Brain Science and Lean: The User’s Perspective</td>
</tr>
<tr>
<td>May 11</td>
<td>Dave Hagan</td>
<td>Introduction to Lean Design and Construction</td>
</tr>
</tbody>
</table>
I used to work as an account manager, working with customers on a daily basis (too often as a firefighter). One of the lessons that I learned in this position was not to put things off. I learned that if you have something unpleasant to do, like completing your income taxes or telling a customer they can’t get their product when you initially promised it to them, it was best to face the unpleasant task first and get it out of the way. The dread of dealing with an uncomfortable situation is usually worse than actually performing the unpleasant task. Also, dealing with the unpleasant situation can help you to prioritize because the sticky situation is also often a pressing matter that needs to be handled. Dwight Eisenhower developed a matrix to prioritize activities based upon the urgency and importance of the task at hand. This matrix was later popularized by author Steven Covey in his book, The Seven Habits of Highly Effective People.

The reason I mention prioritization is to give you some context into a situation I encountered at a previous employer. This employer had an area called “the cage” where all of the administrative records were kept; the cage—sounds daunting, doesn’t it? These records were literally kept in a huge locked cage above the production area and had accumulated for far longer than the two years that I had worked for the company. The area was extremely hot and completely filthy, and boxes were placed on both racks and on pallets on the floor. Additionally, the boxes were in no semblance of order. One of the accountants and I were charged with purging these records. After several months of waiting for the powers-that-be to formulate a record retention policy, and after the records had been moved to an off-site location for temporary storage, we finally got the green light to conduct our 5S. Many of my fellow lean practitioners know that transportation is one of the seven classic wastes. “Oh joy,” I thought. The area where the records had been moved was in the process of being converted to a production facility. Large metal doors were constantly open in this place and the already filthy records that we had moved into the building were twice as dirty as they had been in their previous home. And since the area was quickly being prepared for production, we also felt a sense of urgency to get our office stuff out of the facility. The records also got moved more than once during the process—see my note above about transportation waste!

This was not your typical kaizen blitz. Primarily three of us worked on the 5S over a period of two months, whereas your normal kaizen occurs over a three- to five-day period. Initially we just focused on sorting—throwing away the boxes that clearly did not need to be kept. This process took two eight-hour days, and it was physically intense, as I am not used to this degree of manual labor. All in all we managed to get rid of nearly 40 percent of the records during this two-day blitz. For the second phase of the project we tried to limit ourselves to working two to three six-hour days per week. The next phase began two weeks after the initial sort due to scheduling conflicts. This next step was to do a more in-depth sort to ensure that only what needed to be kept was being kept and to log the contents of each box. Although this process was not as physically demanding as the first two days of sorting, it was much more tedious and took more time because each box needed to be accurately logged into a database. We chose to use this method, because it
I learned that if you have something unpleasant to do, like completing your income taxes or telling a customer they can’t get their product when you initially promised it to them, it was best to face the unpleasant task first and get it out of the way.

Tools Tips and Techniques (T3): 5S Your Office Records cont. from p. 4

would make the records easiest to be located in their new home in a third-party warehouse. Fortunately for us, since the boxes are stacked off of the pallet into slots of eight boxes each, we did not have to set the boxes in order on the pallets prior to shipping them to the outside warehouse!

We finished going through the boxes on a Tuesday right before Thanksgiving. Then we shipped out the retained records that go to the outside storage and also set up a truck to get the remaining nonretained records picked up for shredding. The final phase was to scan records, and get a process in place so that we could eliminate the paper copies completely! This was a daunting task that fit the criteria covered in the first paragraph. But the feeling of accomplishment and the better system going forward made all the hard work worthwhile!

By the way, for those of you keeping score, the sort process took an inordinate amount of time due to the length of time the records had accumulated. We then set in order by labeling the files appropriately, sending the files to be retained to outside storage or for scanning, and sending the obsolete files to the shredding truck. We shined by reboxing records that were exposed and dusting the boxes prior to storage. We standardized by implementing a scanning routine for all new records. We sustained by performing audits to ensure the new process was functioning as documented and being maintained.
Not a High-Volume Widget Manufacturer? Lean Still Makes Sense for High-Mix, Low-Volume Production

**By Greg Lane**

If your organization deals with a wide variety of products that incur fluctuating demand, and your customers are ever-increasing the product range while demanding shorter lead times, you need to continuously experiment and adapt lean methodologies. But if you’ve read the lean management literature, most of which is based on high-volume production examples, you’ve probably decided lean principles don’t fit.

Actually, they do. Lean principals, such as pull production, remain the same even when the methods are adjusted to fit high-mix, low-volume environments. Here’s an example.

Let’s assume you have fluctuating demand across a wide range of products (displayed by the height of the bars and various colors in Figure 1) and relatively fixed capacity. You also must maintain a high on-time delivery and control your overtime costs.

**Figure 1. Varying customer demand**

The workload (the hours of demand being represented by the height of the bars) associated with a customer’s due dates is not aligned with the fixed capacity. Assuming the customer due dates cannot be altered; you need a combination of solutions to maintain high on-time delivery.

Let’s further assume that the company has some repetitive product work as shown in Figure 1 by the solid colors. Production of these items recurs during this period while other products are one-time orders (shown with the dots and stripes). This assumption is valid in most cases except for pure make-to-order job shops.

**Adapting Lean for High-Mix, Low-Volume Environments**

One option involves putting in some upstream “CONWIP” (constant work in process). This type of pull system in lean thinking would be maintained in the form of a kanban system. Kanban is associated with holding some strategic, limited amounts of inventory as a buffer against fluctuating demand. We need to put this into perspective within the context of a lean management system. We are not speaking of the ideal solution, which consists of having one-piece flow. Instead we need to consider a pull system. In lean thinking, you want to flow where you can and pull where you cannot flow. The latter is the case you often will face in high-mix, low-volume environments.

Here’s how to figure out how much CONWIP inventory to hold:

- Perform an A, B, C analysis for finished goods and work-in-process (dividing products into runners, repeaters, strangers).
- Determine where CONWIP inventory of certain runner parts would be maintained (see Figure 2).
Lean Enterprise Division Newsletter

- Calculate kanban levels for runner parts (see Figure 2).
- Convert 50–60 percent of kanban levels into inventory cost so it can be weighed against the benefits incurred.
- Pilot CONWIP for a small range of products and put in a plan-do-check-act (PDCA) loop to constantly improve the system.

**Lead Time vs. Inventory Cost**

Let’s look at two key steps in more detail. First, let’s examine the basic considerations in determining where to hold CONWIP inventory. The basic premise is to quantify the benefits of improved lead time versus the cost to maintain this limited inventory. We’ll figure this based on shorter lead time being inversely related to inventory cost as shown in Figure 2.

**Figure 2. Considerations in the location of CONWIP kanban inventory**

Logically within the flow, the closer the work-in-process inventory is maintained to the customer, the shorter the lead time to complete the remaining process steps and ship. But with each successive step, more value has been added, making the inventory more costly. We must also consider that typically in high-mix operations, the further you process a product the more unique it becomes. In other words, the closer you hold inventory to the customer, the more total part numbers/configurations there are, which increases the potential work-in-process inventory. This is the premise for creating an analysis that has varying factors for each organization, depending on the market’s demand for shorter lead times and the characteristics of manufacturing and storing the products. Determining the point in the flow to hold the CONWIP is often determined with a type of cost-benefit analysis, performed in relation to your objectives (not covered in this article).

**Kanban Calculation**

Next let’s look closer at how the kanban levels are determined for the A parts (the runners). Although there are two types of kanban (withdrawal/conveyance kanban and production/instruction kanban), in this case we are planning to put in a production/instruction kanban.

*cont. on p. 8*
Kanban is basically the signal to produce a predetermined quantity of parts to replace consumption. When calculating kanban levels, you are actually determining the number of kanban cards or signals that will be required in the loop between the producing process and the consumption point. Therefore, you are not specifically determining the inventory level, though this does represent the maximum inventory and has a direct correlation with inventory levels.

Although there are various calculation methods, almost all methods entail summing four categories, each of which is individually calculated and then summed to determine the total cards/signals in the loop.

The categories are:

- **Cycle Time Replenishment**: consumption during the period from when the kanban signal is received until the production is complete and available for that specific card
- **Customer Variation**: consideration for variation of customer demand during the replenishment period
- **Manufacturing Variation**: consideration for variation in the manufacturing process during the replenishment period
- **Safety Stock/Emergency Stock**: additional kanbans to cover for variations not already considered

After using some simple equations to calculate kanban card levels (not covered in this article) for each individual category, you then sum these to determine a beginning level of kanban cards to put into the loop. It is important to remember that these calculations are based on demand and other conditions at the moment you perform the calculations; therefore, you will periodically need to recalculate as factors change.

Also, these calculations determine a starting level. As with any lean system we follow the plan-do-check-adjust, meaning we monitor the system and adjust kanban (inventory) levels as necessary. Monitoring and adjusting these kanban levels are part of the final step, piloting the system.

Examining these two steps in some detail shows that lean methods can be adapted into high-mix operations.

In this case, we are temporarily introducing pull (instead of creating flow) while we continue to work with other lean methodologies, such as quick changeover, job instruction training, visual cross-training schedules, and bottleneck analysis to increase the flexibility of capacity so in the future we can improve flow.

An interesting step in the improvement sequence is to compare the cost of holding some strategic kanban inventory to the benefits of better balancing demand with capacity. Normally lean thinking does not include cost-benefit analysis, but I include it here as we typically find a very respectable ROI while we are better serving the customer. If your boss isn’t committed to piloting a lean solution, this calculation will help.

**About the author**

Greg Lane learned and implemented lean principles at Toyota in Japan (certified as a Toyota Key Person) and at New United Motor Manufacturing, Inc. (NUMMI), the GM-Toyota joint venture. After purchasing a job shop manufacturing company, Lane led it through a successful lean transformation. He is the author of *Culturally on Plan; Made-to-Order Lean: Excelling in a High-Mix, Low-Volume Environment*; and *Mr. Lean Buys and Transforms a Manufacturing Company*. Lane and his associates aid companies through low-volume lean.
Leaning the Surgical Outpatient Screening Process in an Acute Care Hospital

By Sandy Furterer

Introduction

Elective surgery is a surgery that is a planned, non-emergency, and can be scheduled at the convenience of the patient or the physician. Typically, a complete health history, physical examination, and lab and diagnostic tests may be part of the preparation of the surgical patient prior to the elective surgery. Additionally, typing and screening of the patient’s blood is also performed prior to surgery (www.healthtools.com, 2012).

This case will describe how lean tools were applied at an acute care hospital to improve the pre-screening process for surgical outpatients.

Problem Definition

The focus of this project was on streamlining the surgical outpatient preparation activities prior to the patient’s scheduled elective surgery. The surgical patient pre-screening process was not providing the charts to the operating room (OR) in a timely or high-quality manner. The pre-screening process required extensive rework and multiple calls to the surgeon’s offices to get required information. The patients came to the hospital, on average, three times to complete all appropriate diagnostic tests, pre-screening interviews, and educational seminars to prepare for surgery. For the first cases of the day, the percent of charts that were complete by 5:00 p.m. was 33 percent.

Value Stream Map

The value stream map provides a systems view of the departments and functions involved in preparing the patient for surgery. It shows the requirements for each function, the delays, wastes, and opportunities for improvement in the value stream. It helps us understand where the departmental silos exist and where we optimize processes in some departments at the price of sub-optimizing the flow of the entire value stream. By understanding the process from beginning to end—and the handoffs between each function—we can better streamline the entire process for the patient.

We have also provided a rough estimate of the lead time in the process compared to the value-added processing time. The lead time includes the wait time and delays between the functions. The processing time is the value-added time that achieves the goals of the value stream to ready the patient for surgery. In most value streams, there is typically only 2 percent to 5 percent of time spent in value-added processing time, versus 95 percent to 98 percent of time spent in delays, which are wasteful, nonvalue-added activities. In our estimated value stream lead time compared to process time, we found a 2 percent value-added time. For planned outpatient elective surgical cases, the lead time is roughly 16 days (11,513 minutes) from when the case is scheduled to when the surgery is performed. The value-added processing time is approximately 227 minutes, which is 2 percent of the total lead time. The value stream is shown in Figure 1.

The yellow kaizen blitz symbols identify opportunities for improvement in the value stream as follows:

cont. on p. 10
Leaning the Surgical Outpatient Screening Process in an Acute Care Hospital
cont. from p. 9

- Schedule pre-screening visits instead of trying to catch the patient on the phone.
- Verify insurance and pre-register patients who are not currently meeting the needs of timely data entry of the nursing assessments.
- The charts are touched, worked on, and reviewed multiple times throughout the process. The goal should be to touch the chart once, or as few times as possible.
- The charts move to pre-screening holding without being completed consistently, and therefore they require stat orders and additional review and completion.
- There are no visual controls that provide the status of the charts moving through the process.

8 Wastes Analysis
The 8 Wastes Analysis is used to identify process inefficiencies and redundancies. The wastes are shown in Figure 2.

Figure 2. 8 Wastes Analysis

<table>
<thead>
<tr>
<th>Waste Type</th>
<th>Wastes in Pre-Screening Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>• Inefficient work layout&lt;br&gt;• Searching for and moving charts</td>
</tr>
<tr>
<td>Over-Production</td>
<td>• Touching the charts multiple times to verify information&lt;br&gt;• Needing to investigate the status of charts due to lack of visual control&lt;br&gt;• No standard surgeon order set</td>
</tr>
<tr>
<td>Motion</td>
<td>• Reaching for forms&lt;br&gt;• Reaching for documents from fax machines that are placed too high&lt;br&gt;• Walking across the office for forms&lt;br&gt;• Walking around old, extra equipment</td>
</tr>
<tr>
<td>Defects</td>
<td>• Surgeons not sending orders, missing information, results not accessible</td>
</tr>
<tr>
<td>Delays</td>
<td>• Lack of synchronization of resources, no patient appointments for pre-screening and assessment&lt;br&gt;• Insurance verification group not performing their work early</td>
</tr>
<tr>
<td>Inventory</td>
<td>• Storing of chart information is not segregated by patient, but grouped by surgery date&lt;br&gt;• Storing excessive forms in the immediate work area&lt;br&gt;• Excessive clutter due to poor layout</td>
</tr>
<tr>
<td>Processing</td>
<td>• Multiple resources reviewing the same charts&lt;br&gt;• Review the chart to identify missing information</td>
</tr>
<tr>
<td>People Skills</td>
<td>• People performing activities at inappropriate skill levels, e.g., physicians and nurses applying chart/form labels</td>
</tr>
</tbody>
</table>

Improvement Recommendations
Best practice principles are not being applied consistently in the pre-screening outpatient surgical process. The following best-practice principles based on systems and management engineering and lean concepts are:

- Reduce waste and rework to touch the charts as few times as possible.
- Optimize the entire value stream from start to end. Do not sub-optimize functions within the value stream.
- Implement visual controls for easy process status assessment.
- Implement mistake proofing, such as check sheets, to assess chart readiness and reduce errors.
- Implement metrics to assess process control.
- Standardize and document the process to ensure process consistency and reduce process variability.

cont. on p. 11
Lean the Surgical Outpatient Screening Process in an Acute Care Hospital

- Pull work based on patient demand and implement signals for work.
- Organize the work layout to reduce unnecessary motion and travel, eliminate unnecessary documents, equipment, and materials in the work area.
- Understand the patient’s requirements and build your processes to meet their needs.

The team developed improvement recommendations based on eliminating the root causes of the wastes and incorporating best practices.

Pilot Improvements

We began the implementation with the execution of the 5S project. This enabled staff in the pre-screening area to clean up; get rid of unnecessary equipment, supplies, and forms; and put their area in order. This was extremely successful, as the Black Belt worked daily with pre-screening area staff for two weeks to clean up the area. She ensured that owners were assigned to restock forms and incorporate the “shine” discipline so that the pre-screening staff ensured daily that everything was back in its place. This enhanced the patient experience during their pre-screening appointments. The Black Belt then worked with the pre-screening staff to implement the pre-screening chart readiness checklist and the pre-screening patient tracker.

The pre-screening manager was trained on the checklist and the pre-screening patient tracker, and began immediately tracking the desired metrics. The Black Belt trained the pre-screening nurses on how to use the chart readiness checklist. She helped them rearrange the work to align with the priorities identified in the improvement recommendations. She helped them reorganize the patient assignments to the nurses, so that the nurses could follow the patient throughout their pre-screening process. This ensured better consistency and a better patient experience.

The Lean Six Sigma Master Black Belt developed a desktop instruction manual that enabled the processes to be standardized and become repeatable, ensuring that everyone performed the work activities in a standard way. The chart readiness checklist was an immense time saver by enabling anyone to pick up the chart to readily see what pre-screening activities remained for the patient to be ready for surgery and what orders, results, and documents were needed to complete the chart. This helped in the handoffs between departments, especially to the holding area on the day of surgery.

Requiring almost all of the patients to come to the hospital for their pre-screening visit reduced the number of missing orders, results, and documentation. Anesthesia more consistently saw the inpatients the day prior to surgery and reviewed high-risk charts and saw those patients as necessary. Tracking these critical metrics helped to change the behaviors and enhance the patient experience.

Measure Results and Manage Change

This was a highly successful project that added great value to the patient experience and to the organization. The percent of patient charts completed the day before, for the first cases, improved from 33 percent to 95 percent. This case study validated that Lean Six Sigma was a great approach for improving this healthcare process.

Summary

This case study provides a thorough analysis of the pre-operative screening processes and identifies best practice recommendations to streamline the processes for a more satisfactory patient experience. Approximately 80 percent of the recommendations were implemented during this project, which is an extremely effective project implementation. The results were stellar and consistently maintained after the project.

Project Critical Success Factors

The following key factors contributed to the success of this project:

- Chief nursing officer’s and director of surgery’s visible commitment, engagement, and gentle encouragement toward goals
- Key team members selected to participate
- Experienced facilitator with technical and change management skills
- Ability to implement lean tools, enhanced data collection, and measurement techniques
- Team monitors performance on a weekly basis
- Staff willing to pilot improvements
- Surgeons and anesthesiologists as key process innovators

References

http://www.aarp.org/health/health_tools.html
Learning From the Experience of … Jamie Bonini

By David Behling, LED Program Chair

How did you get interested in lean/Toyota Production System (TPS)?

I see lean as TPS. I actually studied TPS in graduate school. I was going to MIT for operations management in the early 1990s, right around the time the book, The Machine that Changed the World, was published. So TPS was a very big topic at the time, and since I was also working for Chrysler Corporation, they were interested in what I would learn. I have been working with TPS in various ways ever since.

What have you been recently reminded of that is important to remember when practicing TPS?

Two things are very important. (1) TPS is actually an integrated system of three elements: a philosophy, some technical tools, and a managerial role. It is very important to understand that all three of them work together in an integrated way for TPS to take root. (2) To learn TPS and how to apply it correctly relies very heavily on learn-by-doing—a very critical element. The vast majority of learning happens by doing, through experience, and with a good coach to help you learn.

The philosophy has four components: customer first; team members are your most valuable resource; continuous improvement; and shop-floor focus. The shop-floor focus means being focused on where we’re doing the process and the work is done. The managerial role is to develop people to surface and solve problems.

What do you think are the biggest misunderstood concepts concerning TPS within the lean community?

• Lack of understanding that TPS is really an integrated system (refer to question above). You need all three working cohesively to be successful. Many organizations focus only on the tools; it is not enough.
• The basic philosophy that underlies the TPS is not fully or well understood. People do not understand how deep the philosophy goes and how fundamental it is.
• Lack of appreciation or understanding that the vast majority of this is learn-by-doing. If you want to learn the philosophy, you must live the philosophy and experience it in the context of your workplace. If you want to learn the technical tools, you have to implement the tools where you work, struggle with them in your environment. If you want to learn the managerial role, you have to go out and solve problems yourself and then develop others to find and solve problems.

If you could have an organization adopt only one TPS behavior or teach only one TPS tool, what would it be?

I would start with the philosophy and its first component: customer first. I would work to deeply understand and try to improve your ability to provide the customer what they want, when they want, and in what amount they want. Use that to work backward.

What is your greatest concern about the TPS movement?

The thinking that we’re there and do not have much further to go. TPS is spreading into general industry, not-for-profit, and diverse (non-automotive) manufacturing sectors, and the temptation is to believe that we have come a long way and are close to the end. In reality, we are really only in the very early phases of learning and applying TPS in North America. There is a lot of improvement to be had. Operations can significantly improve, as can be seen from many case study examples on our website, www.tssc.com. It is actually very exciting when you think about it.

What is the biggest opportunity for TPS in today’s world?

In the industrial sector, supply chains in many industries are getting much more complicated as variety and complexity of the product goes up. This means one must have a very strong and capable supply chain. A key point is having the production organizations supply with very short lead times. Lead time is one of the key results from TPS. The Herman Miller story on the TSSC website is a very good example of this as they compete on lead time. Lead time is also very important in not-for-profits, i.e., how quickly a patient can be treated in healthcare.

cont. on p. 13
Nomination of Elected Officers for the Lean Enterprise Division

By Frank Murdock, Immediate Past Chair

The Lean Enterprise Division has two-year terms of office for treasurer, secretary, chair, chair-elect, and immediate past chair. The positions of chair, chair-elect, and immediate past chair have only one elected position: chair-elect. The chair-elect then, after two years in office, becomes the chair. After two years in office, the chair becomes the immediate past chair. The immediate past chair also chairs the Division Nominating Committee per the terms of our Division Management Agreement (DMA Section 5.2.1). This year, 2016, is an election year for our division. Therefore we will be electing the treasurer, secretary, and chair-elect for the terms beginning January 2017. That election will occur in November of this year with the results reported in the December 2016 issue of LED News.

We will issue a call for nominations in our September newsletter. Our Nominating Committee will put together a slate of officers, which will be distributed at that time. Any nominations from our members will require submission of a nomination petition signed by at least 10 regular members, and submitted to our division secretary, Michael Levenhagen, via surface mail or email by October 1, 2016 (DMA Section 5.2.2).

If there is not more than one nominee for an office, then the Division Management Committee (shown in the division organization chart), will declare them elected by acclamation at our December regular conference call (DMA Section 5.2.3).

If you are interested in running for an office in the Lean Enterprise Division, please contact Frank Murdock at fmurdock@fkmconsultingllc.com to express your interest or get more information.

You work with many service/not-for-profit organizations. What differences do you find implementing lean in these organizations?

Not-for-profit organizations often rely heavily on a volunteer base and experience a huge challenge bringing in new volunteers to do their service and getting them well-trained and comfortable. The volunteers need to have a good experience and feel they made a real impact when their time is done. TPS can be used to design processes to help volunteers have a positive experience. This is different than in the for-profit world.

Do you think there will be an increase in using TPS in not-for-profit organizations in the near future?

I am optimistic that the interest in this sector will grow, because the philosophy that underlies TPS fits in very well with the beliefs for many of the not-for-profit organizations. As they learn more about the TPS philosophy, it will become even more apparent how the four components of the TPS philosophy match so well with the mission-based, volunteer-reliant, and process-focused not-for-profit organizations.

Thank you to Jamie Bonini for providing his time for this interview.

About the author:

David Behling has been involved with the Lean Enterprise Division leadership team since the division’s creation in 2007. Throughout his career, he has gained process improvement/lean and quality experience by helping companies define and create value for their customers, transforming cultures, and building lean leadership. He is currently the director of process improvement at Goodwill Industries of Southeastern Wisconsin and Metropolitan Chicago, a nonprofit community organization, in Milwaukee, WI.
We all strive to achieve results, and each of us strives to sustain the results we gain. There are a lot of factors that play into the level of success or failure that organizations achieve, whether it be the culture we work in, how aligned our efforts are, or the ability we have to deal with and mitigate risk. But out of all the factors at play, leadership is among the most critical. Studies show that anywhere from 50 to 95 percent of improvement programs fail. There are differing opinions as to just how high that number is, but also overwhelming consensus that leadership is a key component in avoiding such failures. Leadership through action, leadership with purpose, and leadership at all levels of an organization are critical to achieving and sustaining results.

The efforts made to embrace and implement lean and Six Sigma methodologies can provide individuals with the tools they need to achieve results. However, sustaining those results is often a challenge that requires commitment, a culture of improvement, and most of all leadership. It requires leadership that goes beyond the top of the organization and spreads out to all levels; and it involves leadership that is both nurtured and sustained.

Focus Areas
Submissions aligned to the following focus areas may include, but are not limited to, the topics listed underneath each.

Lean and Six Sigma Fundamentals
- Teaching tools with exercises
- Practical applications
- Technical/Statistical tools
- Case studies and real-world application

Lessons Learned: Implementation of Lean and Six Sigma
- Case studies and real-world solutions that focus on challenges that where faced, mistakes that were made, and how each was handled and overcome
- Getting buy-in (selling lean and Six Sigma to the uninitiated)
- Matching the right tool to the right problem

New/Unique Applications of Lean and Six Sigma
- Nontraditional applications of lean and Six Sigma methodologies
- Quality for life: using lean and Six Sigma outside the workplace
- Lean and Six Sigma application in nonmanufacturing settings

Useful Tips and Helpful Hints for Sustaining Results
- OK, you’ve gone through the implementation phase and you’re starting to get results, but how do you ensure that those results will be sustained?
- Change management
- People and processes: the human side of quality
- Leadership development at all levels of the organization

LED Launches New E-Magazine!
Glass half empty/full, failure/understanding (of what won’t work), poor performance/opportunity for improvement … So often overcoming challenges in life starts with attaining the proper perspective from which to attack the challenge. Successful and sustainable lean implementation is no different. Having the proper perspective allows us to be forward seeking, not backward reaching, to see opportunities, not challenges, to believe you can help make a better future. These are the reasons that we chose Perspective as the name of our new ASQ Lean Enterprise Division e-magazine.

So what’s the difference between this new e-magazine and the newsletter many of you have previously enjoyed, and which we will continue to publish? The Perspective format will allow for more in-depth coverage of topics of interest to our readers. There will be three to four feature-length articles discussing the cultural underpinnings and related thought systems needed for successful and sustainable lean implementation. Perspective will also have more of a global flair, and so we will actively seek contributors as well as information on lean-related news and events from around the world. Click on this link to find out more about our first issue. http://www.asqled.org/uploads/5/0/4/3/50437315/cover_and_letter_from_the_editor.pdf

CDOT Lean Process Improvement Program Recognized as 2015 Harvard Ash Center Bright Idea in Government

February 18, 2015. Statewide Transportation Plan – Denver, CO. The Ash Center for Democratic Governance and Innovation at the John F. Kennedy School of Government, Harvard University, recognized today the Colorado Department of Transportation’s Lean Process Improvement Initiative as part of the 2015 Bright Ideas program.

To make government more effective and efficient, CDOT launched a lean process improvement program in 2011. The effort builds the creative and inventive skills of frontline employees to improve larger, cross-functional processes through lean rapid improvement events and smaller ones through lean Everyday Ideas.

In 2015, the Bright Ideas cohort includes 124 programs from all levels of government—school districts; county, city, state, and federal agencies; as well as public-private partnerships—that are at the forefront in innovative government action. CDOT’s lean initiative was selected from among 500 applicants.
“The lean program has had an incredible impact on improving business processes so CDOT can better and more efficiently serve our customers,” said outgoing executive director Don Hunt, who helped to initiate the programs. “By engaging all of our employees in this effort, we were able to take processes that have a real impact to our customers and make them faster and more responsive.”

Through the CDOT lean program CDOT now:

- Hires employees 17 percent faster—getting qualified employees to work more quickly
- Issues oversize and overweight permits 30 percent faster—enabling commercial vehicles to get their goods to where they need to go
- Reimburses transit project grantees 75 percent faster—getting dollars to benefit customers more quickly
- Uses inventions by CDOT employees to improve environmental safety through a new hydraulic fluid holding box, to improve safety and more quickly repair delineator posts, as well as implements many more employee-innovated Everyday Ideas

“The Bright Ideas program demonstrates that often seemingly intractable problems can be creatively and capably tackled by small groups of dedicated, civic-minded individuals,” said Stephen Goldsmith, director of the Innovations in Government Program at the Ash Center. “As exemplified by this year’s Bright Ideas, making government work better doesn’t always require massive reforms and huge budgets. Indeed, we are seeing that, in many ways, an emphasis on efficiency and adaptability can have further-reaching effects than large-scale reforms.”

This is the fourth cohort recognized through the Bright Ideas program, an initiative of the broader Innovations in American Government Awards program. For consideration as a Bright Idea, programs must currently be in operation or in the process of launching, have sufficient operational resources, and must be administered by one or more governmental entities; nonprofit, private sector, and union initiatives are eligible if operating in partnership with a governmental organization. Bright Ideas are showcased on the Ash Center’s Government Innovators Network, an online platform for practitioners and policymakers to share innovative public policy solutions.

“It is an honor to be recognized by the Ash Center,” adds Gary Vansuch, CDOT director of process improvement. “Everyone, every day is involved in enhancing the services and programs provided to the public. At CDOT, we use lean and our existing resources to create more value in the work we do on a daily basis by ensuring our processes are effective and impactful.”

For more information about process improvement at CDOT, visit: www.codot.gov/business/process-improvement.

About the Ash Center for Democratic Governance and Innovation

The Ash Center for Democratic Governance and Innovation advances excellence in governance and strengthens democratic institutions worldwide. Through its research, education, international programs, and government innovations awards, the Ash Center fosters creative and effective government problem solving and serves as a catalyst for addressing many of the most pressing needs of the world’s citizens. For more information, visit www.ash.harvard.edu.

Professional Development

The LED Learning Series (LLS), a low-cost lean curriculum for those interested in becoming proficient lean practitioners with a secondary emphasis on lean certification, was launched during last year’s Lean and Six Sigma Conference and remains available. Available now are live, online, and blended offerings for Lean in Healthcare and Lean Certification Preparation. For more information on LED educational and training offerings, contact Steve Kramer at skramer@led.asq.org.

LED is also partnering with the ASQ Learning Institute to develop five new online lean training modules, which will be available Q2 of this year and include:

- Introduction to Lean Principles
- Kaizen
- 5S
- Introduction to Value Stream Mapping

Upcoming Webinars

LED recorded webinars are on the open-access portion of our division website at www.asqled.org. Now, you can share this valuable resource with colleagues who are not members of the LED. For more information or to suggest a webinar topic/speaker contact PaulH@leanwerks.com. Below is information and registration links for the next three upcoming live webinars.

“Lean Product Development”
March 9, 2016
11:30 a.m. – 12:30 p.m. CDT

Ever wonder if lean would apply to your product development process? Join Ron Mascetti, the leading expert in applying lean principles to product development, as he shows how time to market can be reduced and cost targets met in product development using lean principles.

https://attendee.gotowebinar.com/register/6687751260822389761

“Brain Science and Lean: The User’s Perspective”
April 13, 2016
11:30 a.m. – 12:30 p.m. CDT

Change is a part of lean. Change can be difficult. Join George Trachilis as he helps us to understand how the brain can help with lean implementations.

https://attendee.gotowebinar.com/register/425927422204732673

“Introduction to Lean Design and Construction”
May 11, 2016
11:30 a.m. – 12:30 p.m. CDT

Lean and integrated lean project delivery (ILPD) are hot topics in the construction industry. Join Dave Hagan as he presents what lean and ILPD can do in the design, fabrication, and production to create value and eliminate waste.

https://attendee.gotowebinar.com/register/2602160665564975873
COME SEE US AT WCQI!

Please come by our booth, introduce yourself, say hello, and hear about the conference networking event that the LED is sponsoring.

IN THE NEXT ISSUE

Message from the Chair
Letter From the Editor
Tools, Tips, and Techniques (T³)
Feature Article: Calibrating the Human Gage — Jd Marhevko
Learning From the Experience of …
Lean Bytes
Article: Lean Excellence in Higher Education — Nick Vyas/Mary Campbell
LSS Conference Recap
WCQI Preview
Upcoming Webinars

Advertising Rates for The Lean Enterprise Division News are as follows:

<table>
<thead>
<tr>
<th>Rate Type</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full page</td>
<td>US$500 per issue</td>
</tr>
<tr>
<td>Half page</td>
<td>US$300 per issue</td>
</tr>
<tr>
<td>Quarter page</td>
<td>US$150 per issue</td>
</tr>
</tbody>
</table>

For submissions or questions about multiple ad discounts, contact Scott Smith, swsmith111@gmail.com.

Please consider the environment.
Do you really need a paper copy of this newsletter? Please send a message to jbecker@asq.org with “Electronic Only” in the subject line.