

Lean Enterprise Division

January 2014 Highlights

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Chair's Message

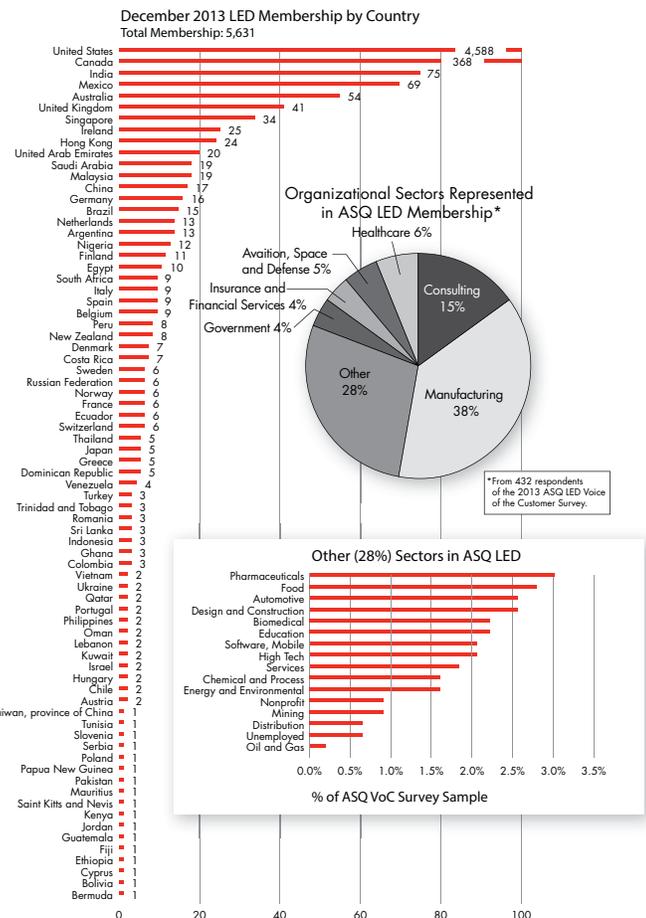
Greetings,

Well, it is 1°F (-17°C) here in Michigan with the wind blowing 25 mph (40 kph) and more than a foot (30 cm) of snow, and my thoughts are naturally drifting to the upcoming Lean and Six Sigma Conference in Phoenix, AZ (warmth). As I told you in my December message, you will not want to miss it, so mark your calendars for February 24 – 25. Besides a full two days of concurrent sessions, we are jointly sponsoring a special one-day workshop immediately following the conference for healthcare professionals involved with lean: *Creating and Sustaining a Lean Culture in Healthcare: What You Can't Learn From a Book*. We are also offering the Lean Bronze Certification Review Program course on the Friday and Saturday before the conference for those interested in taking the Lean Bronze Certification Exam. As always, there will be a meet-and-greet reception for the keynote speakers on Sunday, February 23, and make sure you stop by our booth and our hospitality suite (open Sunday and Monday nights) to chat and say hello.



2013 Highlights

As of December 2013, the Lean Enterprise Division (LED) has 5,361 members located in 75 countries around the world. Although by far most of our members reside in the United States and Canada, more and more are joining from countries like India, Mexico, Singapore, and China. As a result, our 2020 Vision for the Lean Enterprise Division, which I referenced in last year's message, is to reach out to everyone—anywhere—interested in the application of lean principles and methods. One of our first steps was to participate in the Institute for Industrial Engineers (IIE) Annual Conference in San Juan, Puerto Rico (OK, it is still technically in the United States but the dominant



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language is Spanish). As a result of that effort and with help from the ASQ Puerto Rico Section and the ASQ Learning Institute, we now have our Web-based Introduction to Lean training modules available in Spanish and Portuguese.

In addition to going global, our 2020 Vision includes expanding the application of lean beyond the traditional manufacturing sectors. As you can see, our members are active in a wide variety of organizations including consulting, healthcare, aerospace, financial services, and government. At the 2013 Lean and Six Sigma Conference, almost half the presentations referenced some aspects of lean in healthcare or government. This will continue at the 2014 Lean and Six Sigma Conference. In 2013 we increased the frequency of our webinars to monthly (offered free to our members) on a variety of topics from lean in sales to gemba walks to lean in the office.

We also expanded our Leadership Team to include Vic Wilson, Mike Regna, Mark Baker, Mike Lopez, and Samir Joshi. As you can see, there are still many opportunities to become involved as a member leader, including being one of our global outreach liaisons

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Note From the Editor

Happy New Year everyone. As we look to the new year, I think it is appropriate that we feature interviews with John Kotter and Jim Kouzes—two renowned change leaders. After all, what more do we wish for than positive change as we move forward in our lives as well as our careers in 2014? Also in this issue, we will have part two of the T³ article on pull systems, feature an article on managing change, as well as feature, “Which Comes First: Lean or Six Sigma?”

I am looking forward to this year's Lean and Six Sigma Conference. Once again we expect to have great keynote speakers, more than 50 informative and thought-provoking sessions, and attendees from around the world. Our partnership with the Six Sigma Forum now includes the Healthcare Division. And, for the first time, we will have a third day of the conference, consisting of an all-day workshop dedicated to lean in healthcare. If you attend the conference, please stop by our booth and introduce yourself. If you are an LED member, we will have a free gift for you.

As always, your feedback is very important to us. If there are any topics you would like to see featured in this newsletter, ideas on what we can do better, or comments on something we are doing well, we want to know. Just send me an email at lance.b.coleman@gmail.com. Have a great start to your year. Hope to see you in Phoenix, AZ!

Warm regards and safe travels,

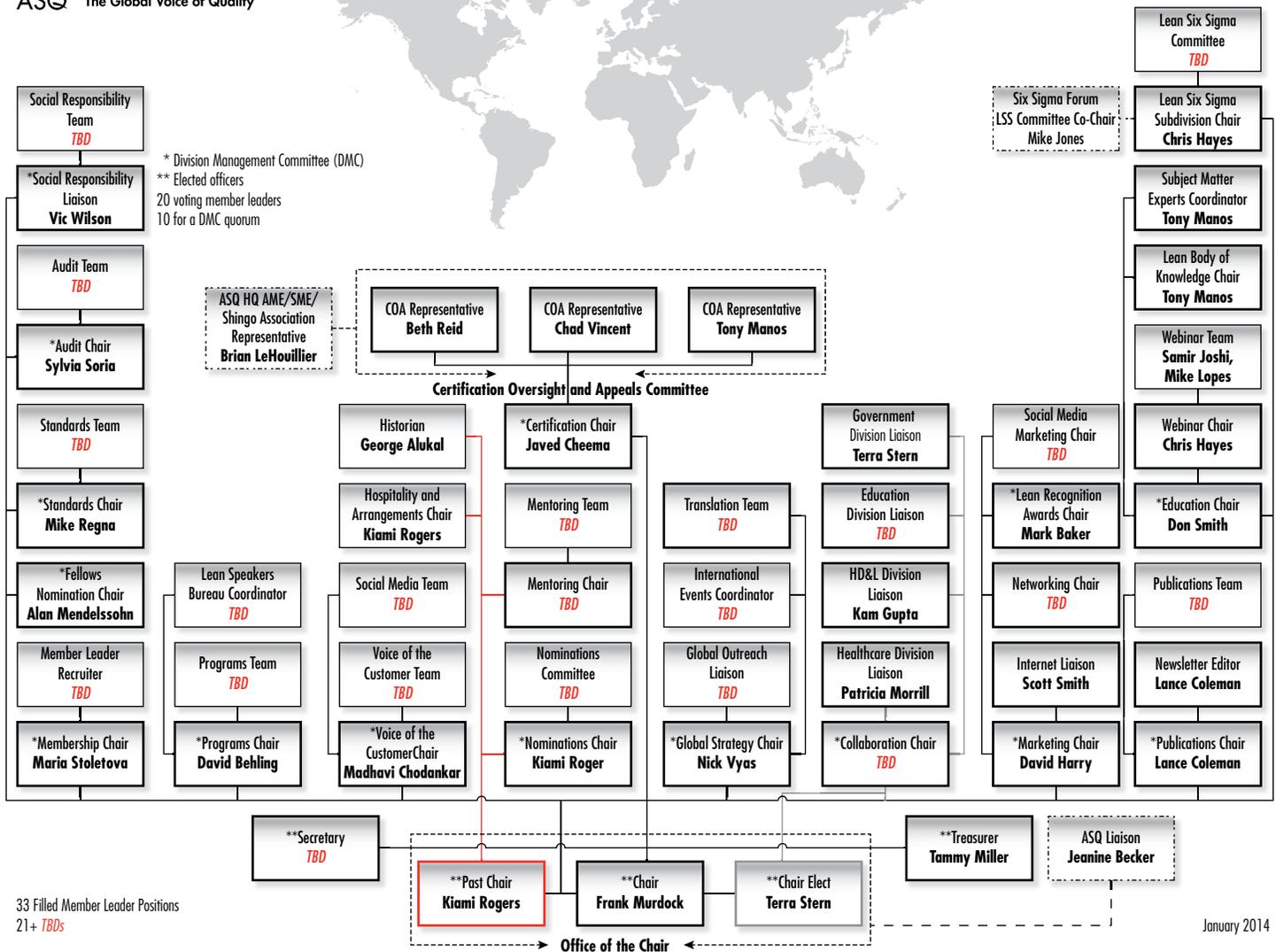
Lance Coleman

LED Publications Chair, Newsletter Editor





Members Everywhere



representing your region if you reside outside the United States and Canada.

Financially, the Lean Enterprise Division is very strong. We chose to invest approximately half of our reserve funds into the Invest in ASQ Fund, which pays our division interest and at the same time helps pay down the ASQ mortgage—investing in ourselves as it were. We began 2013 with a balance of just over \$131,000 and at the end of October 2013 we had just under \$122,000 (the year-end financials are not yet available as of this writing). Our plan is to continue to invest in our 2020 Vision by providing value-added products and services such as webinars, Web-based training, and our Linked-In group for networking, along with the more

traditional conferences and publications. As always, we are open to your suggestions, so please do not hesitate to contact us.

I look forward to meeting many of you at the 2014 Lean and Six Sigma Conference, but for those who cannot attend, I—and our Leadership Team—look forward to working with you and for you throughout 2014.

Best wishes for a happy and productive year,

Frank Murdock
Chair, ASQ Lean Enterprise Division

Newsletter Publishing Guidelines

Main Factors

1. Technical merit
 - Includes correct facts
 - Relevant to our mission
2. No selling of services
3. Nothing offensive
4. Original content only. Nothing previously published or presented.

Additional Factors

1. Not too similar to something recently done
2. Desired subject matter – how timely is material?
3. Well written (not requiring extensive editing)
4. Needed length

Categories — Newsletter submittals should fit into one of the following categories:

- A Case for Lean (ACL) – case studies and articles on successful deployment of lean in business
- Lean in Life (LIL) – examples of lean outside the workplace
- Tools, Tips, and Techniques (T³) – practical applications of specific tools
- Lean in Print (LIP) – book reviews
- Lean Bytes (LB) – event coverage, announcements, and other news

Length — Desired length for tips, book reviews, articles, and case studies is 400 – 800 words. Tips and book reviews would be in the 400 – 600 range, articles anywhere from 400 – 800 words, and case studies 500-plus words. If a submittal goes beyond 800 words then we may look at breaking it into more than one part.

Review and Selection Process — All submitted works will be reviewed by at least two members of the subcommittee. The subject for a book review should be approved in advance by either two members of the subcommittee or by the subcommittee chair. Upon approval of a submitted work, the subcommittee forwards the piece to the ASQ LED newsletter editor for final review, approval, and release. The newsletter editor will determine when accepted articles will be published.

Other — All articles containing photos should be submitted with the photo(s) as a separate jpeg attachment.

Calendar/Main Theme(s)

(Submittals relating to the main theme receive priority)

Issue	Content
February 1	Submit content by December 1 – preview of Lean and Six Sigma Conference
May 1	Submit content by March 1 – preview of ASQ's World Conference on Quality and Improvement
September 1	Submit content by July 1 – training, certification, and back-to-school
December 1	Submit content by October 1 – year-end reflection/looking ahead to next LSS conference

T³ Tools, Techniques, and Templates: Pull System/Kanban, Part II

by Chad Vincent, LBC (or COA Representative)

Editor's Note: This is part two of a two-part article. Part I ran in the December 2013 issue of Lean Enterprise Division News.

Types of Pull Systems

There are three types of pull systems³:

1. Replenishment (Supermarket) Pull System
2. Sequential Pull System
3. Mixed Pull System

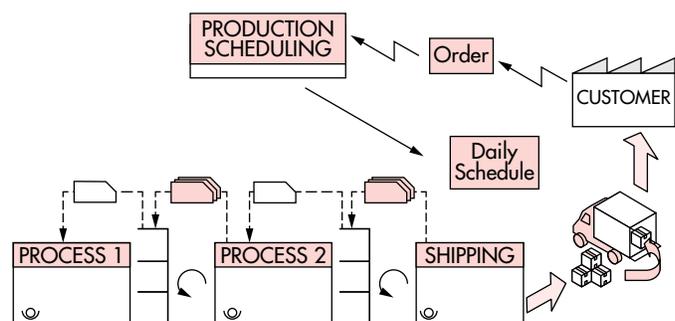
In a supermarket pull system (Figure 3), the upstream process has a “store,” or supermarket, that holds a defined amount of each product it produces. The defined amount is typically determined from historical demand, plus some sort of buffer/safety stock for spikes. The upstream process simply produces to “replenish” what is withdrawn from its supermarket by the downstream process. Thus the name replenishment, or supermarket, pull system. The replenishment pull system is most successful in a value stream with low product mix.

Notice in Figure 3 that the schedule is sent only to the process in the value stream that is closest to the customer. Downstream production is scheduled based upon the individual triggers or the withdrawal of product from the supermarket. In some instances, the schedule is not sent to the most downstream process. In that scenario, the schedule should only be sent to the most downstream process in a sequence of processes controlled by pull systems. In other words, the processes controlled by the pull system do not receive a schedule. Their schedule is determined by the supermarket inventory levels. This is why the supermarket is located at the point of production and not the point of use at the downstream process. The upstream process cannot monitor the supermarket if it is not located nearby.

The supermarket is equivalent to shelving (storage) located at the upstream process. The replenishment pull system is much like a supermarket in everyday life. At home, you plan to make a dinner but you need some food items. You travel to the store, go down the various aisles and shelves, and collect the needed food items. Then you bring back the items from the store to your kitchen to make the dinner. The store then replaces what you actually pulled from the shelves, or replenishes the shelves. In this example, the store is the upstream production process, the shelves are the production supermarket, and the kitchen is the downstream process.

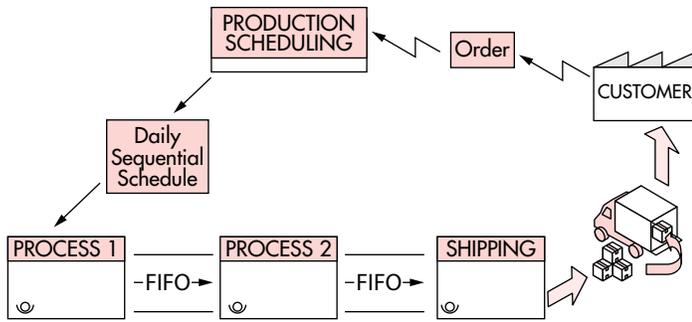
A sequential pull system (Figure 4) is when production is conducted in a sequential order. The furthest upstream process produces according to a sequenced schedule. Production is controlled with a sequenced inventory between processes, also known as first-in-first-out (FIFO). In other

Figure 3: Replenishment (Supermarket) Pull System



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Figure 4: Sequential Pull System



words, the order in which the upstream produces the orders, the downstream process consumes in the same order. FIFO lanes can be used as a visual indicator to trigger production of downstream processes. The FIFO lanes are defined with an “amount” of acceptable inventory or production orders. When spaces in the FIFO lane are open, the upstream process can start production. Once these spaces are filled, the upstream process stops production. Once the downstream process consumes from the FIFO, the upstream process may restart production. This is what creates the “pull” in this pull system. Without the defined FIFO, the upstream processes will continue producing, or overproducing, which results in the traditional push production. FIFO principles must be followed for sequenced pull systems to function properly.

Sequential pull systems may be used when there are too many part numbers to hold inventory of each in a supermarket, or high product mix. Products are essentially made to order while overall system inventory is minimized. This is why sequential pull systems are very similar to organizations that operate under a make-to-order scheduling structure. The key difference is the FIFO control between each process.

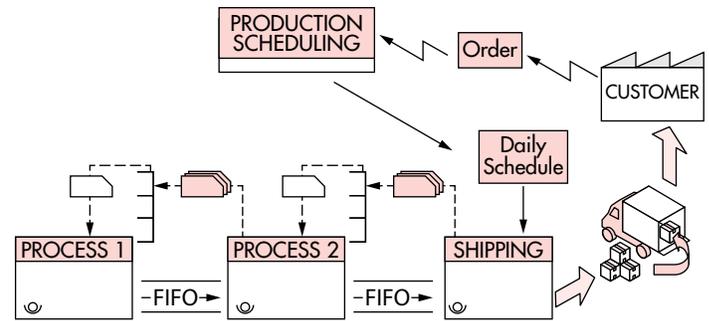
A mixed pull system is simply the combination of the replenishment and sequential pull systems (Figure 5). Mixed pull systems are typically used with high product mix, but an 80/20 rule applies to the volumes associated with the products at the upstream process. In other words, 80 percent of the downstream process daily demand (volume) is for 20 percent of the part numbers. For the upstream process, the 20 percent of parts would be placed in the supermarket, while the rest of the parts would be placed into a FIFO as orders for those parts are placed.

Keys to Success

The concept of a pull system is quite simple to understand; yet it is one of the more difficult lean systems to implement. It is easy to get trapped into coming up with the “perfect” acceptable levels of inventory in the pull systems or right mixing the FIFOs. Another trap is when the pull system fails because the system was not implemented with contingencies for demand spikes. For pull systems to be successful, there are some key guidelines to follow:

- Flowing product in small batches (approaching one-piece flow where possible)
- Pacing the processes (to stop overproduction)
- Signaling replenishment with clear and concise triggers

Figure 5: Mixed Pull System



- Leveling of product mix and quantity over time to balance the pull system
- A plan is made for every part to prevent the “emergency” situations
- Store parts where they’re made only for visual management of production control
- Items are pulled when they’re needed, no sooner
- Items are made/sent when requested, no sooner
- There is only one defined trigger for each item to prevent miscommunication and overproduction
- Don’t store any “extra” items anywhere, unused items go back to the supermarket
- Standard work for the pull system with defined inventory levels, triggers, and contingencies
- Plan for adding emergency triggers for demand spikes
- Person assigned as owner of pull system to sustain and improve

Conclusion

When implemented correctly, pull systems can be a cost-effective and proficient inventory control system. However, without discipline and close management, they can cause more issues in the value stream and impede flow. The key point, as with all lean continuous improvement systems, is that they are but a step in the journey to achieving one-piece flow, perfection. As with most lean systems, they can actually be used to force improvement activities and prevent complacency. Jeffrey Liker summed it up best:

“The challenge is to develop a learning organization that will find ways to reduce the number of kanban and thereby reduce and finally eliminate the inventory buffer. ... Kanban is something you strive to get rid of, not to be proud of.”⁴

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- ³Marchwinski, Chet and John Shook, editors, *Lean Lexicon, Third Edition*, Cambridge, MA: Lean Enterprise Institute, 2006, pp. 74-77.
- ⁴Liker, Jeffrey, *The Toyota Way*, New York, NY: McGraw-Hill, 2004, p. 110.

Learning from the Experience of ... Jim Kouzes

by David Behling, LED Programs Chair

This column brings you interviews with some of the top lean, improvement, and leadership individuals at the forefront of our field.

I recently had the pleasure of speaking with Jim Kouzes, the best-selling author, award-winning speaker and, according to The Wall Street Journal, one of the 12 best executive educators in the United States. Kouzes has co-authored more than 12 award-winning books, including The Leadership Challenge, with Barry Posner. He is currently the Dean's Executive Fellow of Leadership at Santa Clara University's Leavey School of Business and lectures on leadership around the world to corporations, governments, and nonprofits. Kouzes was listed as one of HR Magazine's Most Influential International Thinkers for 2010 and 2011 and named as one of the 2010-2013 Top 100 Thought Leaders by Trust Across America and by Leadership Excellence magazine as a Top 100 Thought Leader for the past 10 years.

How did you get started in leadership?

I owe a debt of gratitude to my parents who are both first-generation Americans and leaders in their community. I was taught to serve through their example. I was also fortunate to grow up in the Washington, D.C., area, and I was regularly exposed to the history of our country. I had the opportunity as an Eagle Scout to serve in the honor guard at John F. Kennedy's inauguration. I gained an appreciation of leaders, the impact they could have on the world, and the multicultural views of the world. I also got to witness the political movements of the 1960s, and these taught me lessons about citizen involvement in change. As a result of all this, I developed a strong interest in how leaders have an impact on other people. I was inspired to join the Peace Corps, and I served as a teacher. Through that first job, I discovered that my true calling was teaching, and I decided that I wanted a career that offered the chance to teach and the opportunity to serve.

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

The 2013 Edelman Trust Barometer reports that globally only 18 percent of people report that they trust business leaders to tell the truth, and only 13 percent trust government leaders to tell the truth. In the U.S., those numbers are 15 and 10 percent! That is a sober reminder of the abysmal state of leadership credibility around the world. We must remember that credibility is the foundation of leadership. It's one of the fundamental truths. Credibility will determine whether a leader is effective or ineffective. It is the key for people to willingly follow. One must believe in the messenger in order to believe the message. Credibility influences everything and it directly affects productivity.

What do you think is the most important part of being a leader?

We've just discussed it. In one word: credibility. In our research we asked people to select the qualities they most looked for and admired in a leader. Our results show that honest (89 percent), forward looking (71 percent), competent (69 percent), and inspiring (69 percent) are the top four characteristics people most

admire. (The parentheses show the percent of people naming that characteristic.) Three of these four—honest, competent, and inspiring—refer to what communications researchers call “source credibility.” That's why we say credibility is the foundation of leadership. And more importantly, what credibility is in action. When we ask people to define credibility behaviorally—how they know it when they see it—they tell us that it's “walking the talk,” “practicing what you preach,” and “doing what you say you will do.” This behavioral definition is the first of The Five Practices of Exemplary Leadership®.

We have also found that the attribute that most differentiates leaders from other credible people is the quality of “forward-looking.” This is the largest difference between what we desire in a leader and what we want in a colleague. We do not expect a teammate to be forward-looking, to have a vision. A leader *must* have one. Developing this skill is one of the most significant challenge people will have in going from a colleague to a leader.

What should be done in order to better raise leaders in our community and workplace?

We must embrace the concept that leadership is everyone's business and more widely distributed than leadership folklore would have us believe. The myth that still surrounds leadership is that it is only for a select few. That is absolutely false. Leadership is much more broadly distributed in the population than myth would have us believe. Leadership is learned. Just to illustrate that, when we asked individuals, “Who is the most important leader role model in your life?”, a family member was named first by 40 percent of 18- to 30-year-olds and by 46 percent of those over 30. A teacher/coach was mentioned second by the younger population and third by the older group. The most important leaders are those who are closer to us. And you are the most important leader to those closest to you. Leadership is not a selection issue; it's a developmental issue. We need to start teaching leadership earlier and practice it more frequently. Unfortunately, many people's first leadership training is when they get their first supervisory position; that is too late.

If you were going to explain to someone (or an executive) what leadership is, what would you say?

In our research we asked people to answer the question, “What do you do when you are performing at your best?” From these cases, and from an assessment tool that was derived from them, we identified The Five Practices of Exemplary Leadership.® These practices define behaviorally what leaders do. The practices are: (1) Model the way; (2) Inspire a shared vision; (3) Challenge the process; (4) Enable others to act; and (5) Encourage the heart. These practices have stood the test of time, and we find in our research that they explain a significant percentage of why constituents are engaged in their work. In other words, the more you demonstrate each practice, the higher the workplace engagement.

What do you think is the biggest misunderstood concept concerning leadership within society today?

Most people still have the preconceived notion that leadership is mostly what senior-level people with titles do and that it's done at the top of an organization. *Nothing* could

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Learning from the Experience of ... Jim Kouzes cont. from p. 6

be further from the truth! Go back and read the answer to the fourth question. The word “leadership” does not start with a large “L,” but a small “l.”

The world has changed greatly in the past several decades, has leadership also changed or just become better understood?

The content of leadership hasn’t changed much in the last 30 years. Credibility is still the foundation, and The Five Practices are as valid and reliable now as they were when we first did our research in the 1980s. The context of leadership, though, has changed and sometimes dramatically so. For example, there was no publicly available Internet when we did our initial work; today it’s ubiquitous. The economy is now global and demographics have

shifted. Each of these changes in context requires us to be more attentive in how we engage in The Five Practices. These changes demand that all leaders become sensitive to other people’s needs. Leaders need to be more open, and more respectful of others. And they need to work very diligently to find common ground.

I would like to, once again, thank Jim Kouzes for providing the opportunity and time to conduct this interview.

About the Author

David Behling is the programs chair of the Lean Enterprise Division. He has worked extensively in the lean, improvement, and quality fields helping to transform companies. He is currently the director of process improvement at Goodwill Industries of Southeastern Wisconsin in Milwaukee, WI.

Learning From the Experience of ... John Kotter

by David Behling, LED Programs Chair

This column brings you interviews with some of the top lean, improvement, and leadership individuals at the forefront of our field.

I recently had the pleasure of speaking with John Kotter, who is internationally regarded as the foremost authority on the topics of leadership and change. He has authored 18 books—12 of them best sellers. His is the premier voice on how the best organizations achieve successful transformations. Kotter is the Konosuke Matsushita Professor of Leadership, Emeritus, at Harvard Business School and is co-founder of Kotter International.

How did you get started in leadership?

I am most interested in performance and why some individuals and some organizations outperform others. This interest and some personal experiences, somehow, took me into leadership. At a young age, I was placed into positions where people expected some type of leadership. I began to see how things could affect performance and make a difference.

What have you been recently reminded of that is important to remember when leading change?

Every time that I think that I have this clear in my head, I am re-reminded of the importance of urgency on implementation. At the beginning of trying to make any large-scale change, accelerating some important strategy or trying to set up a whole new way to run an organization, the sense of urgency must be “gotten right.” If one gets the urgency right, it makes a humongous difference; if you don’t, it will dog you forever.

What do you think is the most important part of being a performance-driven leader?

It all starts with an aspiration that you really do embrace—both emotionally and intellectually—that you want to make a big difference. You can say that anybody in a leadership job probably does that, but that is not true. Great leaders that I have studied and encountered had at some gut level, really embraced some significant aspiration that it’s not going to happen without really good leadership on their part. It is almost an internal conscious and unconscious driving force. If it is not there, everything else

really doesn’t matter. You hit walls—you always hit walls trying to achieve anything of significance—and you stop. Great leaders do not stop; it is almost like emotionally, they cannot stop.

What should be done in order to better raise change leaders in our community and workplace?

A new insight to me in the last three years is that the world is moving so fast today with enough turbulence that the fundamental system in the 20th century is antiquated and doesn’t work anymore. The add-on is a new piece that works in conjunction with the traditional piece; it is a network-like organization, full of volunteers. This provides agility and speed to react. A consultant recently told me that the number of people who seem to be developing as leaders inside their company was increasing rapidly because of activities that the people were doing outside of the hierarchy of the company.

A big insight for me was when the world demands more than a little leadership from a few people to perform well, the hierarchies are terrible at developing leadership. Traditional jobs tend to be professional and managerial positions, so as people move up within a company, they learn more and more about modern management. People do not learn much about leadership in a hierarchy. They are sent to a class or assigned a special project to learn about leadership, but 99 percent of their time, they are learning to be better managers. The traditional hierarchy has growth limits and needs a totally different system to grow leaders.

Leadership skills are being grown outside of business in nontraditional areas. This new network system requires and makes learning leadership easier. Leadership skills will grow much faster than within a hierarchy. This set of ideas is truly designed for pioneers, as it is not really being done today.

What do you think is the biggest misunderstood concept concerning change leadership within society today?

The number of people that talk change leadership is still very small; most people talk about change management. The two are quite different. Change management is a discipline that has been developing over 30 years and has a set of tools that has worked well with project management and within our

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hierarchies. Change management is used when it is clear who has to change, you know that you are moving from point A to point B and you expect some pushback. Change leadership is needed when you are at A and are not sure where B is, and the pushback may be a solid wall. I have spent my career in change leadership, not change management.

The problem is that the speed of turbulence and unpredictability, which is driven by technology and integration, can be such that the fundamental way that we've learned to run an organization cannot keep up and it becomes murky on when change leadership is needed. Change management is needed about 95 percent of the time and change leadership 5 percent of the time.

The world has changed greatly in the past several decades. Has change leadership also changed or has it just become better understood?

Change leadership has changed and become better understood. It

is clear that we must upgrade—a 2.0 so to speak—and continue to find new ways of running things to survive in today's turbulent world. It is important to understand that the old form was not wrong, it was just different than what is needed to succeed in today's world. The stuff that I wrote about 15-plus years ago has had remarkable staying power and still produces results.

I would like to, once again, thank John Kotter co-founder of Kotter International for providing me the opportunity and time to conduct this interview.

About the Author

David Behling is the programs chair of the Lean Enterprise Division. He has worked extensively in the lean, improvement, and quality fields helping to transform companies. He is currently the director of process improvement at Goodwill Industries of Southeastern Wisconsin in Milwaukee, WI.

Which Comes First: Lean or Six Sigma?

by Jim Bossert, Ph.D.

As I have evaluated projects to see what is needed, a question frequently comes up on what should be done first: Lean out the process or apply Six Sigma tools to it? It is easy to give the most maddening answer in the world—"it depends"—but let's refrain from that and look at the logic for making a decision. To lean out a process, the person asking the question must think there is some waste in the process. What gives them that idea? Are there some clues that are making them think that way? Or did a friend share that the latest thing is lean?

Similarly, what Six Sigma tools will work on the process? Are there some favorites that are always used or does the process require something unique?

Does it matter which is done first? I would argue that it makes a big difference. But it requires some understanding first of what the problem with the process is and what the organization wants to do. To blindly jump in is asking for trouble. Let me give you an example. When I was working at a big Six Sigma company, there was a trend that all processes should be automated. It became a corporate mandate and so all divisions immediately put forth efforts to automate their processes. People never looked at the process to see if it was good, bad, or in between. Automation was the goal. In my role, I pushed back, telling management that we needed to evaluate each process and then prioritize what should be automated. This advice was not taken. Soon, we started getting feedback from our customers on our automation efforts. We had succeeded to take a bad process, and by automating it, we created more customer dissatisfaction than ever before.

I think you get the point, you need to understand what is expected out of the process and evaluate it to determine if it is creating defects or if it is creating waste. Once you fix the problem, then you can optimize the process. So again, what comes first, lean or Six Sigma? Let's start by asking: What is the problem? What initiated this project? Customer complaints? High scrap? Taking too long to process something? High rate of mistakes or errors? Too many

workarounds? If it is a time-based problem, we should look at leaning out the process first, then use Six Sigma tools to sustain the improvements.

That is pretty straightforward, but what about a process that has too many workarounds? Is that time based? Or error based? Or both? In a simple world, workarounds take place because the process backs up and operators simply figure a way around the backlog to keep things moving. This may work for the short term but sustaining workarounds is difficult to do over a long period of time. This usually results in having to redesign a process. This is ideal, since we can use both lean and Six Sigma tools and get it right.

What about mistakes and errors? Is that a lean or Six Sigma problem? Or both? Is mistake proofing a lean or Six Sigma tool? Does it matter? Or should we just focus on fixing what is broken and not worry about what it is called?

We also have to ask: Is there a difference between manufacturing and transactional processes? Should lean come first? There is some merit to this since most transactional processes are not documented. Also, there tends to be few controls in transactional processes. Consequently, for any transactional process, there is much more upfront work that has to be done. The process must be mapped, controls if any need to be identified, and in many cases you have to start taking measurements on the process. What does that sound like: lean or Six Sigma?

The point is, a good analysis of what the problem is will determine what set of tools you will use. What you call it is secondary to what you are asked to do.

About the Author

Jim Bossert, Ph.D., is the editor of *Six Sigma Forum Magazine*. He has worked in both manufacturing and transactional companies implementing process improvements, sometimes called Six Sigma and sometimes called lean. Bossert is an ASQ Certified Six Sigma Master Black Belt, Quality Manager of Operational Excellence, and Quality Engineer. He is currently looking for new opportunities.

Change Leadership and Lean

What it takes for successful lean transformation in an organization

by Chris Hayes

I've been practicing and coaching lean for a lot of years in a lot of companies. One would think that during this time, I've seen my fair share of successful lean transformations. That would, in all honesty, be true. The sad, other half of that truth, however, is that I've seen as many failed attempts at lean as I have successful ones.

Years ago I spent a lot of time studying the process of organizational change. My undergrad studies in project management and MBA as well as my days in HR more or less forced my interest in the subject, but once the interest blossomed, I was a goner. Just like my introduction to lean, I became a change addict pretty quickly. Being a person that has always believed in the power of process, I became an instant fan of some of the best-of-the-best in the field, including change leadership guru John Kotter from MIT and his 8-Step Process for Leading Change.

Over the past few years, I've done a bit of informal research on companies that have implemented lean and either failed or succeeded in their attempts. In a nutshell, I found the critical difference between those companies that successfully implemented lean and those that were unsuccessful was those that were unsuccessful failed to understand lasting change requires a structured approach to transitioning an organization and its culture. Throwing a few really cool tools at the organization just doesn't do it; trust me on this. The tools work, and many companies will tell you they provide various benefits including increased revenues, resource efficiencies, and cost savings. Unfortunately, tools by themselves rarely, if ever, provide lasting results. To avoid this pitfall, a structured approach to implementing change leadership is required.

Now I've done my fair share of "Missing Link" articles and presentations in the past and still believe that every missing link claimed really was missing, but it wasn't until I reread one of Kotter's books that I had my moment of clarity. While in the past I focused on specific missing elements of a transformation, I overlooked the most important missing link—the process of change leadership and how it supports the drive and sustainment of an organization-wide lean transformation.

In Figure 1, we see a force field analysis of a lean transformation. This particular force field analysis was completed based on my work with one of my recent clients, but it is still surely indicative of many other transformation attempts. There are many positive forces, which, if missing, would certainly cause failure, but even when present don't guarantee success. What must be developed is a method for resolving the negative forces on the right while exploiting the positive forces on the left. The concepts of change leadership do just that.

While there are many good theories in change management that can be incorporated into this discussion, change management is not the missing link. Change management and change leadership are quite different, likened to the differences between quality control and quality assurance, respectively. While change management is something many companies are good at, it is oftentimes like driving while looking in the rear-view mirror. We only manage or control the change while it is happening. In contrast, Kotter (*Forbes*, 2011) describes change leadership in the following way, "Change leadership is much more

associated with putting an engine on the whole change process, and making it go faster, smarter, more efficiently." Let's take a look at Kotter's 8-Step Process for Leading Change and how it can be integrated into a successful lean transformation.

Kotter's eight steps to change are as follows:

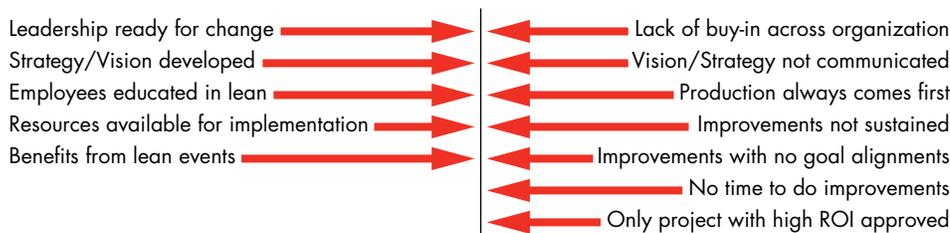
Figure 2: Kotter's 8-Step Process



Taken one by one, each of Kotter's steps negates one or more of the negative forces within the previous force field analysis, leading to a more positively skewed set of determinants in a lean transformation. Creating a sense of urgency will certainly provide buy-in across the company as each person begins to understand the "why" behind the transformation of lean. Ensuring that a committed team is in place to develop and disseminate the company's vision and strategies throughout the organization will drive and support meaningful improvements. Empowering employees to take ownership of their work and environment by producing quick wins allows for others in the organization to understand the power of experimentation and make time for improvements. Not letting up and creating a new culture have a cause and effect relationship in which long-term goals and actions support and build a culture in which improvements are part of day-to-day functions at every level of the organization.

What then does a successful lean transformation look like when it incorporates the successful concepts of change leadership? Figure 2 shows a cross reference of Kotter's 8-Step Process and

Figure 1: Force Field Analysis



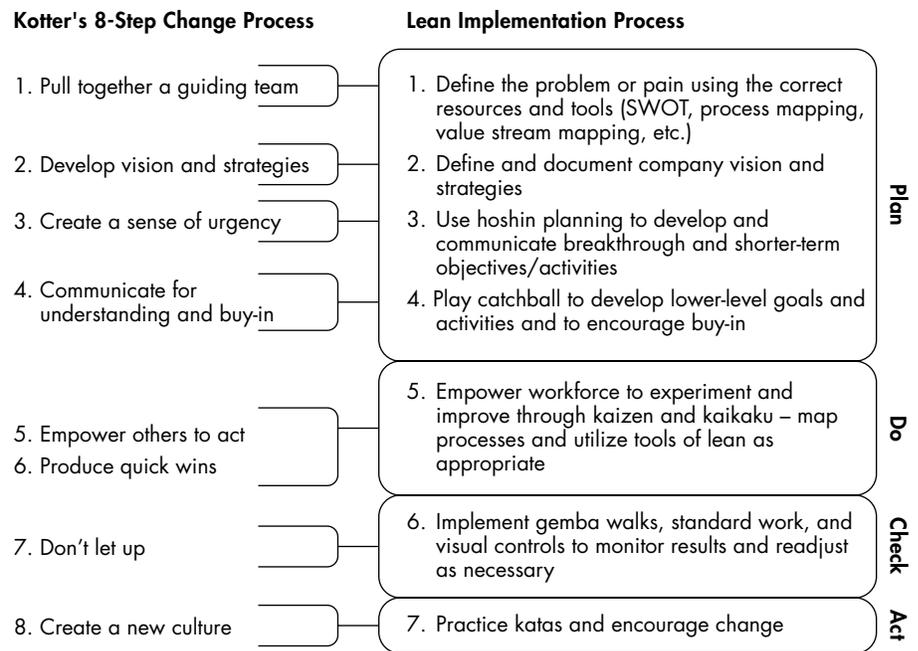
the seven key steps in successfully transforming an organization using lean. While I don't keep all of Kotter's steps in the same order, all are dutifully present and accounted for. Looking at Figure 3, it is easy to see how a good lean transformation process not only includes the change leadership steps, but also incorporates a full plan-do-check-act (PDCA) cycle, as any good lean transformation should.

Plan

Steps 1 through 4 are all part of the Plan phase of the PDCA cycle. Step 1 requires that an organization first develop a committed team to define the problem(s)/pain(s) that exist within the organization and to guide the rest of the organization through resolving some of the issues. Problems/pains may consist of environmental, competitive, or internal conditions. The use of traditional strategic management tools such as strengths, weaknesses, opportunities, threats (SWOT) analysis may be used. Using Step 1 to understand the current situation of the company is the only way to properly move on to Step 2, which is to develop and define the vision and high-level strategies of the company. The vision and strategies of the company become the standard with which we align all other activities and efforts of the organization. Step 3 involves using hoshin kanri to guide the organization in planning the activities and micro-objectives that will support the organization in achieving its high-level strategies and vision. The use of a tool called the X-matrix is typical in a hoshin kanri implementation. A picture of a hoshin kanri X-matrix is shown in Figure 4. The X-matrix's power is in being able to assist in the planning, communicating, and carrying out of activities in a simple manner that anyone in the organization can participate in and understand.

Step 4 is a carry-on of Step 3 and uses an approach called "catchball" to engage lower-level supervisors and employees in reaching company objectives. It is played in much the same way as the child's game of the same name, whereas a manager "throws" the upper-level objective or "catchball" down to the lower-level supervisor to "catch." The lower-level supervisor, with the help of his/her team, develops strategies and activities that will

Figure 3: Concepts of Change Leadership



help support the manager's higher-level objectives (which support the company's vision and strategies) and "tosses" their ideas back up to the area manager. The manager and supervisor then play "catchball" until both can agree on the activities and goals at every level of the organization that will help the organization achieve its vision. Activities and goals at all levels of the organization are documented and managed on lower-level support X-matrices.

Do

Step 5 is all about the Do phase of the PDCA cycle. This phase is often the phase that is most focused on and jumped to before spending adequate time within the Plan phase. This mistake can be costly and is one of the most common errors I see in organizations implementing lean. In Step 5, the organization begins to empower the workforce to use the tools of lean to resolve problems identified during hoshin kanri. Future state value stream maps are developed and acted upon, and kaizen events (small incremental improvement events) or kaikaku events (radical change events) are executed. Quick wins are important here, as each successful win produces the pull for more improvement in other areas and by other employees within the organization. This is the step that everyone likes because success is abundant. It is important to note, however, that without a prioritization plan for improvements, the Do phase can start to look a lot like what happens in the game "Whac-A-Mole," where anything and everything is a target, and as soon as one issue or "mole" is eliminated, another one pops up. Remember that although every improvement is good, resources are never unlimited; and because not all improvements move the organization closer to meeting its goals, they must be prioritized.

Check

While the Do phase typically receives the most focus in organizations implementing lean, conversely, the Check phase is most often neglected. This is the second most common and costly mistake in a good lean transformation. Step 6 is where Kotter emphasizes celebrating success while keeping the momentum strong. This step is where the organization begins to drive the new behaviors and practices into the culture, ensuring long-term success. The successful lean organization will develop action-driving visual controls for the improvements implemented and implement gemba walks to monitor performance and sustainment of improvements. Standard work for leaders will be adopted to ensure that best practices remain in place no matter which specific person holds each specific leadership position. As Kotter explains, leadership is invaluable in this step, since constant effort is needed to keep urgency high and long-term goals in view.

cont. on p. 11

Figure 4: Hoshin Kanri X-matrix

At this stage, it is critical to press harder and faster than ever before. Be relentless in instituting all the new changes until the vision is a reality. To do this, you may have to make modifications to systems, structures, and policies that don't fit well together. You may need to reinvigorate the process with new projects, themes, and change agents. Transformation, by nature, is a constantly changing thing that requires attention, control, and agility.

Act

Kotter accurately asserts that culture change comes last, not first. Culture is composed of behaviors and shared values within an organization. Culture change comes only when the vast majority accepts new traditions created by unyielding pursuit and successful transformation of the previous lean transformation steps. While cultural development is merely a side effect of the accepted behaviors and shared values within an organization, it is one of an organization's most powerful forces and can make the difference between a successful or failed lean transformation. It is critically important to determine how to hold on to the new ways of behaving until they become a part of the culture of the workforce and are adopted easily by new employees. This can be accomplished by practicing katas (routines that provide purposeful results like a leader's standard work), visually communicating successes, and developing system changes that support the sustainment of the new practices.

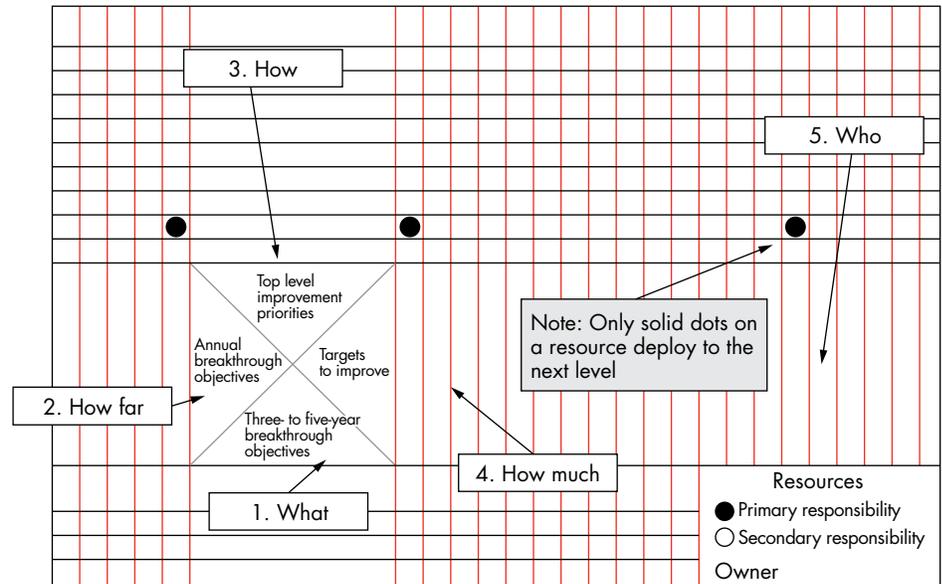
While there is and never will be one best way to succeed at transforming your organization using lean, ensuring that you include proven best practices in change leadership will surely increase your odds. I wish you good luck on your lean journey.

About the Author

Chris Hayes is the president of Impact Performance Solutions, a professional consulting and training organization that provides optimized services and solutions to businesses to help them achieve their most critical objectives. She has been a student of lean for more than 20 years, with work in various industries including healthcare, aerospace, manufacturing, distribution, and nonprofit. Hayes has a BSBA in project management with certifications as a Lean Six Sigma Master Black Belt (CLSSMBB), Quality Engineer (CQE), Quality Auditor (CQA), Manager of Quality/Operational Excellence (CMQ/OE), Project Management Specialist, Human Resource Development Specialist, Organizational Systems Improvement Specialist, as well as Lean Bronze Certification (LBC). She is a reviewer for Lean Bronze portfolios and is currently working on completing her MBA at the University of South Dakota.

Reference

Kotter, J. (2011), "Leadership," *Forbes*, retrieved January 6, 2014, from <http://www.forbes.com/sites/johnkotter/2011/07/12/change-management-vs-change-leadership-whats-the-difference/>.



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