

Case in Point

A PUBLICATION OF TECHNICAL

CHANGE ASSOCIATES, INC.

Volume 11, Issue 1

Fall/Winter 2006

Transforming the “LEAN” buzzword into practical application and results.

PRESIDENT'S CORNER



*Dave Dixon is
President of TCA.
He has over 39 years'
experience with
process improvements
and Extreme Lean™.*

“KIND’A, SORT’A” LEAN.. SO WHAT COMES NEXT?

By: Dave Dixon

After a couple of decades of testing, Lean business practices are now widely accepted as a major contributor to extraordinary customer service and profitable operations. But with this acceptance has come a new leveling of the playing field in many industries. The preemptive competitive advantages enjoyed by early Lean adopters have dissipated as more and more companies are “converted” to techniques that reduce waste and slash lead times. We have also come to the realization that only the most effective operations can position a company to compete with competitors who source off shore to suppliers in low cost labor markets.

These conditions suggest that we need to get better; and getting better requires that we choose and execute improvement projects that have maximum impacts on the performance and profitability of the business.

A TRIO OF TECHNIQUES

It is important to note our belief (based on years of observation) that companies become World Class performers one project at a time. Real improvement is the result of fundamental changes to our core business processes. These changes are rarely made “on the fly.” Carefully structured projects, properly resourced and meticulously executed, are the means by which we drive major change.

Value Stream Mapping and analysis, as a means of selecting improvement projects, needs little explanation or defense. It is worth noting, however, that we often stop short of mapping the entire value stream (or all of the value streams). As we work to eliminate waste in administrative processes and in the supply chain, we will need to extend value stream mapping to include these activities. Too often, we also fail to iterate on the maps after we complete projects. As a result, we do not confirm the results and identify the next steps for improving the value stream.

Value Stream Mapping, then, is an important tool for identifying improvement opportunities and should remain a mainstay in the project selection process. However, there are many business needs that are not revealed by a value stream map. Have we institutionalized the improvement process? Do our improvement efforts support directly the strategic needs of the business? Do we have issues and problems that are not addressed by the Lean tool kit? Where do Six Sigma tools apply? How do we measure our progress—can we demonstrate that we’re getting better?

These and many other relevant questions are answered best by using a systematic assessment tool. These tools are commonly referred to as “Lean Maturity Models.” The version that we use at TCA goes beyond the application of Lean tools, however, and asks how well we are doing in each of five equally important areas:

- Vision, Strategy and Leadership
- Customer Focused People
- Systems and Resource Management
- Six Sigma Quality
- Lean Business Practices

Our model is used to quantify the status of the company’s progress in becoming a Lean/World Class Enterprise (WCE).

Output from the assessment process provides another set of criteria for selecting improvement projects. When combined with the knowledge gained from Value Stream Mapping and analysis, we have a much more comprehensive indicator of what needs to be done. In addition, the quantified progress report provided by the Lean/WCE Maturity Model can be a great motivator for people engaged in the improvement process. As new levels of excellence are achieved, the company becomes eligible for recognition by various certifying organizations (e.g., Shingo Prize, Industry Week Best Plants). Targeting and receiving such an award is a fitting pay-off for a high performance organization.

With the project alternatives suggested by the Value Stream Maps and the assessment process in hand, we suggest yet another innovative tool for governing the execution of these projects. The tool is called a WCE Transformation Map, or T-Map.

A strategically focused, comprehensive WCE implementation program is a complex set of initiatives and projects with critical interdependencies. Many projects compete for the same resources, which forces us to make decisions about which projects to undertake in any given timeframe. The T-Map provides a means of visually analyzing the alternatives and documenting the plan once the decisions have been made. We then use the map to continuously check progress against the implementation plan. Figure 1 is a simplified illustration of the T-Map. More about its application will be found in this issue of Case-In-Point.

LEADING THE CHARGE

Time has demonstrated that successful Lean/WCE implementations are buttressed with a strong leader and a surrounding cast of committed colleagues. But it goes further. Companies who are most effective form a Steering Team to direct the Lean/WCE implementation effort. This team devotes focused time and energy on the analysis of value stream maps, assessment results, and the strategic needs of the business. These inputs are used to develop and document the T-Map, which becomes a visual, directional signpost for the entire organization. The T-Map captures all of the activity necessary to improve current processes and to add new or expanded capabilities in support of the business strategy.

Next, the Steering Team will position one or more Lean/WCE professionals to coordinate and support project teams and to act as a liaison between the project teams and the Steering Team. The Lean/WCE Coordination role has proven to be essential in a successful program.

And finally, when all of the planning is in place and our coordinator is on board, we always face the dilemma of how to resource the initiatives and projects that we have chosen to work on. Because most people in the company are engaged pretty much full time with basic business functions, it is difficult to make them available for improvement projects.

Creative ways of making people available and augmenting the permanent staff with temporary resources is perhaps the most important function that the Steering Team performs. The high powered planning generated and documented by the techniques described above, is useless unless we find crisp, effective ways of executing.

MOVING TO THE NEXT LEVEL

Even being “kind’a, sort’a Lean” might have provided a competitive edge at one time. In some industries, performance has been so poor that the benefits of the most rudimentary Lean implementation would set a company apart from the competition. This is rarely true today. There are a growing number of truly world class competitors, and the price of complacency could be elimination.

The tools introduced here and discussed in more detail in this issue are designed to take performance to even higher levels—to drive out the last vestiges of waste and variation in processes throughout the enterprise. We at TCA remain passionately committed to developing and sharing techniques, information and experience that help our clients in this quest. Call us any time with your questions. We love to talk about Lean and the World Class Enterprise.

If you would like to introduce your company to the next level of World Class Enterprise techniques, call Dave Dixon at 877-621-8980.

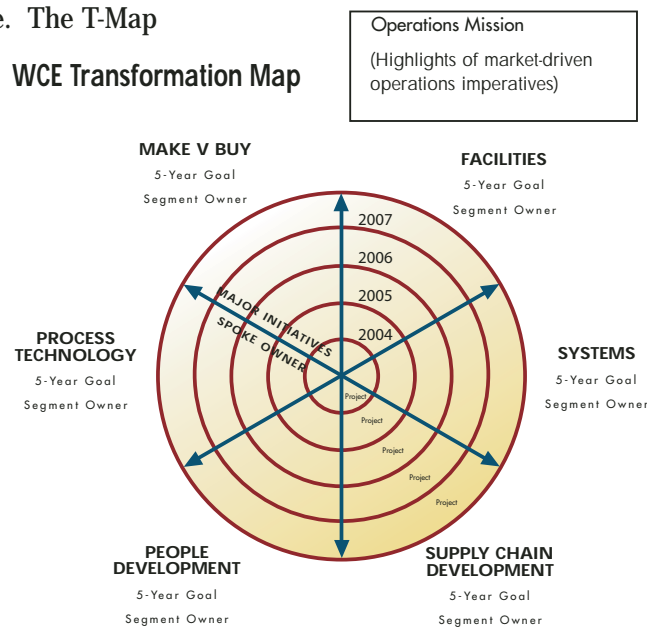


Figure 1



CASE STUDY



Rick Smith is Vice President and General Manager of TCA. He has over 33 years' experience with implementing Lean principles.



FROM LOSS TO PROFITABILITY;

OUR JOURNEY TO BECOME "LEAN" A MYERS CONTAINER/TCA SUCCESS

By: Rick Smith

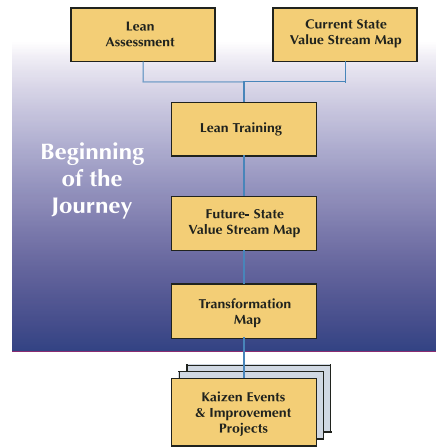
Do you ever wonder about the real benefits of Lean, about the powerful transformation Lean can make in a company's future? Here's what John Cutt, CEO of Myers Container Corporation, has to say:

"There is not a single person in our organization who has not embraced with enthusiasm the Lean strategy at every location. Once introduced to the program they have thoroughly accepted its principles.

Every manager, every employee in the plants are very anxious to implement Lean and once they have tasted success there is no holding them back.



A 5S kaizen underway



World Class Improvement Process

"Our reconditioning plants are clean and bright, as are our new drum plants. Equipment and the plants themselves are being painted and maintained. 5S has taken control of offices, plants and yards and we get better each day.

"But, more than anything else there is a spirit of camaraderie and competition that has never existed previously. We are so proud of all of our employees."

"One thing I can assure you of at this stage of the game is that we'll never go back to being what we were. It has become our way of life."

Myers Container Corporation was founded in 1984 as a privately-held company. With over 250 dedicated people working at eight U.S. locations, their goal to make Myers Container the best container company in the industry.

2004 was a dreadful year for Myers. Rising steel prices, coupled with other economic conditions, drove off any hope of profitability. Late that year, Myers' management team decided to take strong action to restore profitability. Kyle Stavig, then Vice President of Sales, learned about TCA's work with Columbia Aircraft Manufacturing of Bend, Oregon. He contacted TCA and invited us to visit their drum manufacturing plant in Portland to see if similar performance improvements could be realized.

THE JOURNEY BEGINS

For every journey, there is also a map – or, in this case, a series of maps – directing the path to continuous improvement. Myers' first map was a "current-state" Value Stream Map. This map indicated the constraints to throughput and identified "profit-eating" cost drivers.

With this map in-hand, TCA then led 24 members of Myers' management team through a series of workshops and planning sessions. Together, the team learned how to use the tools of Lean to improve throughput, collapse lead times, reduce costs, improve quality, and restore profitability.

As part of those sessions, the management team created a future state Value Stream Map. Operationally, the future state showed how the company would operate with all of the constraints to flow removed and all of the operations functioning in a "least waste" way.

In addition, Myers management went through a mini-strategic planning process in which they redefined the operations mission and formalized goals and objectives. The Myers leadership team could now see how to transform the company so that they could restore profitability.

continued on page 4



Workplace organization improves efficiency, effectiveness and safety.

TRANSFORMATION MAP

“How quickly can we make this happen?” was their next question. A plan was needed to “transform” the business from the current-state to the desired future-state. To accomplish this, TCA introduced the “Transformation Map” or, as we call it, the “T-Map”. The T-Map visually depicts a three-year process (a series of improvement projects and kaizen events) for achieving the goals and objectives of our operations mission over the next three years. With T-Map in hand, the management team continued their journey. Armed with a vision of the future, guided by a clear strategy, and practicing sound leadership skills learned from the TCA workshops, they set out to transform Myers Container through a series of improvement projects and kaizen events. A “holistic” approach to improvement was used. Each improvement project was aimed at developing a “customer focused” workforce; teaching the proper use and application of the “Lean” tools to improve quality, enhance throughput, increase productivity and drive off all “non-value added” activities to reduce cost and improve profitability.

KEY LESSONS LEARNED

Kyle Stavig, now President of Myers, sums up his company's Lean journey, “Preaching continuous improvement is a way of life for us now. Getting our people together, capitalizing on the collective intellectual knowledge and improvement ideas of everyone has been the key to our success.”

Just 16 months into Myers “Lean” journey, Kyle and Jim Bise, Myers’ Lean Coordinator, shared some key lessons they learned. Their lessons are valuable for any Lean executive:

1. Always begin at the top of the business with a strategic plan.
2. Update the future-state Value Stream Map often.
3. Manufacturing cells are great for manufacturing, but they work other places too. Implement cellular concepts in all areas of the business.
4. Keep score of how you are doing. Use a scorecard of key performance metrics to focus Lean improvement projects on areas of the business that require attention and improvement.
5. Maintain a Continuous Improvement List in every cell and department.
6. Conduct as many kaizen events as you can.
7. Use the 5S system to “clean-up” the facility and organize it.

SUMMARY

John Cutt recently summed up the results that Myers Container has achieved through Lean:

“By the way, we ended up with a very good year in 2005 thanks in good measure to TCA’s guidance and direction. We achieved nearly every major goal we had established for ourselves back in the early days of 2005 including a 50% reduction in our inventories, increased revenue per employee by over 23% and, finally, reduced the number of employees by 15%, all through attrition. Now there's a success story for you.”

As the Myers management team can attest, a journey of a thousand miles begins with the first step. In Myers case, the company found itself facing continued losses and unable to respond effectively to difficult economic conditions. A step in the right direction made the difference, and lead to immediate and sustained profitability. Congratulations to the entire Myers team of dedicated and committed employees.

For more information on how to achieve higher productivity through the implementation of Lean principles, call Rick Smith at 877.621.8980.



PRESS RELEASE

TCA ACQUIRED BY LMI AEROSPACE

ST. LOUIS – February 13, 2006 – LMI Aerospace, Inc. a leading provider of components to the aerospace, defense and technology industries acquired Technical Change Associates, Inc. (TCA), a provider of lean manufacturing, facility layout and business planning consulting services, based in Ogden, Utah.

TCA provides services to small to middle market manufacturers through its staff of sixteen consultants and subcontractors in a variety of manufacturing environments. TCA has provided lean manufacturing training, facility design and employment search services to LMI since 1993. David R. Dixon, President of TCA, and each of the consultants and subcontractors plan to remain in their roles.

Ronald S. Saks, President and Chief Executive Officer of LMI said, “We plan to use LMI’s resources to enable TCA to broaden its consulting capabilities and handle larger projects. Additionally, we plan to tap the capabilities of TCA’s staff to support our operational objectives, including development of the LMI Academy and expansion of our lean manufacturing initiatives.”



BOOK REVIEW



Trina Green celebrates her 16th year with TCA and is the Recruiting and Placement Manager

CREATING A LEAN CULTURE:

Tools to Sustain Lean Conversions

Author: David Mann
Publisher: Productivity Press
Reviewed by: Trina Green

As a recruiter, I’ve interviewed many people for positions such as Lean Coordinator, Lean Specialist, and Continuous Improvement Manager. I often ask: “How would you develop and sustain a Lean culture?”

This critical question addresses a glaring reality that I encounter in company after company. During plant tours with a new client I often see flip charts or status boards that have not been updated in months.

If I had to choose between Lean training for a new recruit to lead a Lean area or providing him or her with a copy of clearly written standard work, I would choose standard work every time.

- from Creating a Lean Culture

The charts and boards themselves show excellent evidence of past Lean advancement – dramatic setup time reduction or tremendous quality improvement or enhanced production linearity. However, they also reveal that the organization doesn’t have a true Lean culture....that leaders are not committed to sustain and build on past Lean successes.

With *Creating a Lean Culture*, David Mann offers valuable suggestions on how to institutionalize Lean using 4 principal elements of Lean Management:

- Leader Standard Work
- Visual Controls
- Daily Accountability Process
- Leadership Discipline

Leader Standard Work emerges as the most important and novel idea providing a structure and routine to maintain the momentum from early Lean successes. It includes a management process Lean leaders use to concentrate attention on continuous improvement and the culture of Lean.

MANN REFERS TO LEADER STANDARD WORK AS THE “ENGINE” OF LEAN MANAGEMENT.

Mann also details the other 3 elements presenting clear, practical guidelines that will be useful to Lean leaders.

As we all know, the road to a successful, sustained continuous improvement program is long and arduous, but the payoffs are huge. For those of us who really want to create a Lean culture, this is a must read.



Welcome TO TCA

Jeffrey Dixon
Operations Manager

Jeff Hoffstetter
Senior Consultant

Jeri Maughan
Office Manager

William Rainey
Sr. Manufacturing
Engineer

Jeffrey Shipman
Senior Consultant

Joseph Viola
Sr. Manufacturing
Engineer

Pat Welsh
Director of Marketing/
Recruitment and
Placement Specialist

Timothy Winder
Vice President Systems

Erika Wong
Managing Consultant
People Development

UPCOMING EVENTS

Technical Change Associates, Inc. presents....



MR. DIXON



MEN IN BLACK



MR. SMITH

DEMAND PULL IN THE FABRICATION JOB SHOP

Tuesday, October 31, 2006 - 9:30 a.m. - 11:30 a.m.

David R. Dixon, President, Technical Change Associates, Inc. Few practitioners understand how to adopt demand flow techniques to a low volume, high variety environment. Orders for the same or similar part numbers repeat infrequently and often not at all for most fabrication job shops. Other job shops produce a mix of repetitive and non-repetitive work. This presentation will show how to use end demand pull techniques in any job shop. Effective application of the principles learned will help accomplish the objectives of Lean Manufacturing: i.e., lead time reduction, faster inventory turnover, greater productivity and better visibility and control of quality.

- Importance of demand pull replenishment for lean value streams
- Use demand pull in low volume, high variety job shops
- Achieve lean manufacturing objectives with effective use of demand pull contributions

 Technical Change Associates, Inc. (TCA) (801) 621.8980 www.technicalchange.com

TOTAL PRODUCTIVE MAINTENANCE IN THE FABRICATION JOB SHOP

Wednesday, November 1, 2006 - 9:30 a.m. - 11:30 a.m.

Rick L. Smith, Vice President/GM, Technical Change Associates, Inc. The name of the game for the World Class job shop is to learn to flow work with the minimum number of delays and associated wait time. Equipment downtime is a major contributor to disruptions in the flow of work. Fortunately, there are powerful tools and techniques for reducing downtime. This presentation will demonstrate the use of Total Productive Maintenance (TPM) principles to eliminate losses due to equipment failure. Included will be an explanation of how to systematically engage the entire workforce in the maintenance process. An approach to coupling TPM with other World Class/Lean business practices will also be covered.

- Flow work that minimizes batching and wait time
- Understand how equipment downtime is an enemy of flow
- Reduce downtime with the principles and practices of TPM
- Engage the entire workforce in the maintenance

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Georgia World Congress Center, Atlanta, GA

October 31- November 2, 2006

www.technicalchange.com

Tuesday, October 31, 2006

9:30 a.m. - 11:30 a.m.

Demand Pull in the Fabrication Job Shop

Presentation by Dave Dixon

Wednesday, November 1, 2006

9:30 a.m. - 11:30 a.m.

Total Productive Maintenance for the
Fabrication Job Shop

by Rick Smith

TCA'S 13TH ANNUAL CONFERENCE ON LEAN

April 18 - 20, 2007

Boston, Massachusetts

Tour of Boston Centerless,
Shingo Prize Winner

For more information, visit our website at
www.technicalchange.com

