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Why Lean?

By Greg Rowe, Senior Consultant

Lean Manufacturing. Lean Enterprise. Lean Office. Lean Healthcare. Lean Construction. Lean enough?

Whether you're a quality management professional who has heard it all before or you're entirely new to the concept of Lean anything, perhaps a little primer, refresher, and definition may be useful. That's our purpose here.

If you're not familiar, Lean is a generic understanding of principles first espoused within The Toyota Production System. Books such as KAIZEN by Imai, Learning to See by James P. Womack et al, and dozens of others describe a process approach that made companies such as Toyota global leaders. Yet, as history has proven, these are not just good ideas for discrete manufacturers with strong production controls. The principles apply anywhere. They can greatly benefit your organization also, if you accept and apply them appropriately.

That raises our first question. Is Lean really a program, a method, or a way of life? You may have heard it called one or more of those. Yet sometimes practitioners think they're becoming Lean when they are doing something else. Some myth-dispelling may be in order.

Lean does not mean a "lean and mean" organizational chart.

It's certainly not about eliminating jobs. The longer you've been in business the more cycles of programs you've seen that are hijacked to justify the hard and sometimes short-sighted decisions. That should not be the case here. If Lean ever seems that way, it may be just another example of the misappropriation of an important business philosophy, as was sometimes the unfortunate legacy of Reengineering for those of us who remember back a couple of decades in consulting.

After all, if your operation is more efficient after improvements and then you dismiss team members, that will counteract the gains achieved through Lean. Lean requires the empowerment of workers, whereas firing people indiscriminately disenfranchises them. Lean is not referring to lean people or organizations but, rather, lean processes.

This brings us to an essential understanding of Lean Enterprise. Lean is largely about empowering team members to eliminate waste in processes. Most of us see wasted efforts every day. We may see the various types of waste addressed by Lean, which can be represented by the initials D.O.W.N.T.I.M.E. -- Defects, Overproduction, Waiting, Not utilizing talent, Transportation, Inventory, Motion, Excess processing.

When you see wasteful practices, can you or your team members take immediate action to overcome them? Should you be able to do that? If so, what mechanisms could you put in place to leverage observations appropriately throughout the entire enterprise without creating havoc?

Lean provides many tools and techniques to attack waste effectively. The Value Stream Analysis compares how things are today to how they should be, even ide-

ally. This helps identify where to focus improvement efforts so as to achieve a more efficient and effective future state. Similarly, the Waste Walk puts more eyes on a situation to spark innovative solutions, some of which will be "Just Do It" action items. Rapid Improvement or KAIZEN events, which are the centerpiece of most programs, allow team members to quickly analyze, brainstorm, decide, and implement changes within clearly defined boundaries.

For a Rapid Improvement Event (RIE) to be successful, several cautions are in order. First, be sure the purpose and process boundaries are clearly established so that scope creep does not derail the effort or negate decisions. Secondly, ensure all of the appropriate cross-functional representatives participate. This prevents one group from implementing a solution that is sub-optimal to their process' customers and suppliers. Thirdly, have sign-off points during the event so that senior leadership can be on board with the more significant decisions.

Most events last 3-5 days. However if RIEs and KAIZEN are a weekly or daily discipline, an event would be much shorter.

When managed properly, an RIE can quickly make corrections and improvements that may have plagued an organization for years. Yet an RIE is not an end unto itself. After actions taken during an RIE are documented and celebrated, they become the starting points for future events. As part of this, Lean also advocates executive champions to keep programs on course, and team leaders who are held accountable for managing, reviewing, and sustaining gains achieved.

In terms of other tools Lean espouses, you may have heard

of error-proofing, standardized work, cells, visual controls, 5S, Kanban, TAKT-time and various other techniques for being more productive while focusing on customer demand.

Several of the tools listed above advance a demand concept called Pull. By switching from a push system to a pull system, you cause customer demand to pull product through operations. It sounds simple enough, but it's no small matter, especially for large corporations or for anyone whose ERP system runs an early version of MRP.

That raises the importance of not relying too much on a single methodology, and Lean is no exception. Along the way you must still tune your systems, balance your operations, and consider additional details. As any of the consultants will tell you, it is best



Greg Rowe

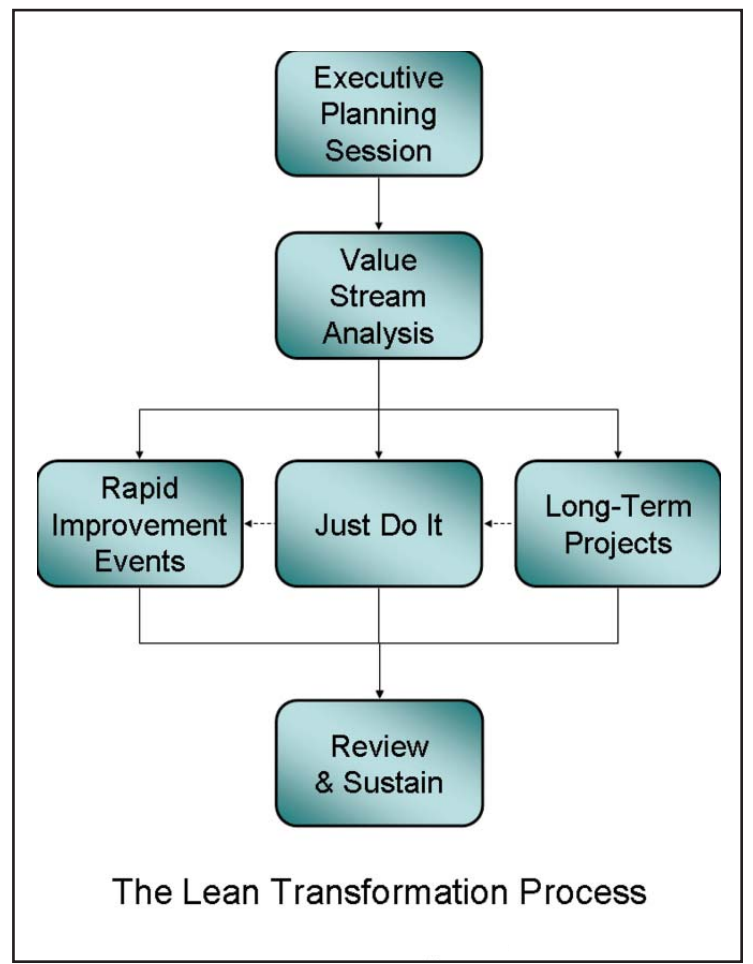
to draw from a full set of tools and techniques in conjunction with Lean.

For example, for Pull to work best you must first identify and reduce bottlenecks that impede process flow. This is addressed in detail by The Theory of Constraints (T.O.C.), which was introduced to the business world in 1984 in The Goal by Eliyahu M. Goldratt and Jeff Cox. Similarly, Six

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New processors provide a big boost in computing power

By Bill Thompson, Director of Computer Technology Programs

The pace of technology advancement is so rapid that it is nearly impossible to stay ahead of the obsolescence curve. Just when you thought you had the fastest and "baddest" laptop available, Intel and AMD render it obsolete with the release of their new dual core processors.

The new dual core microprocessors are a hit with businesses and consumers alike. The Intel Duo Core processors feature two complete Pentium IV processing cores in one chip, and yet consume less power than a single Pentium IV. This provides a major advantage to laptop users who will benefit from longer battery life. The AMD processors utilize dual Athlon 64 cores

and are designated, not surprisingly, Athlon 64 X2. AMD has not yet released a laptop version of its dual core CPU so Intel has a major advantage in this category.

Part of the Intel technology allows it to actually turn off power in real time to parts of the chip that don't need it. Both processors are ideal for multi-threaded applications and multitasking. They can effortlessly tackle extremely demanding graphics and mathematical applications while running multiple other applications in the background. They also have new technology that is optimized for multimedia applications.

All of the innovative features introduced in the Duo Core have

earned Intel critical acclaim. PC World magazine gave it the number one Best Product award for 2006 and Computer Shopper magazine placed it in the Top 25 Products category for 2006. AMD, which released its Athlon 64 X2 before Intel's Core Duo, has also received rave reviews and early acceptance in the marketplace. However, do not expect a major boost in productivity in the short term. The multi-threading software that can really take advantage of dual processors is currently in limited supply. Single-threading applications will need to be rewritten to reap the full benefits of the technology. Nevertheless, there is still a noticeable improvement in multitasking capability

with current applications. Imagine being able to run a complete hard disk defragmentation at the same time you are editing a 3D CAD drawing.

Top-end Intel processors are currently selling in the \$1,000 range (for 1000 units). The AMD version is significantly less. Prices will continue to fall in the coming months, but, you may want to think twice before rushing out to buy a dual core machine. Intel's "Cloverton" processor will begin shipping to manufacturers by the end of the year and it contains four cores. Plans are in the works for a dual four-core server in 2007.

That obsolescence just keeps getting bigger and bigger.



Bill Thompson

Questions? Need additional information? Contact Bill Thompson at (502) 638-4430 or BThompson@mttc.org.

Fleet modernization process

By Mark Kaufmann, MTTTC Project Manager

Can the Commanding Officer (CO) of a US Navy ship go into a local Lowe's or Home Depot and buy something to put on his/her ship? What if it is a common sense solution to a reoccurring problem, one that can obviously and easily be fixed by the commercially available product?

The answer to all of the above questions is no. But why not? After all, it is their ship, and they have been appointed by the Chief of Naval Operations as the CO and are ultimately responsible for the ship, all of its equipment and its sailors. So why aren't they allowed to put something new on their ship without permission?

The answer is SHIPMAIN and it stands for Ship Maintenance. In order to put new equipment on board a ship, it must be thoroughly tested and approved by what is called the Warranted Technical Authority (WTA) for that equipment. Warranted Technical Authorities are Navy civilian engineers, are the "owners" of the particular equipment, and have the final say as to what happens to their Navy equipment on board ships. It is their job to oversee the installation of new equipment, any maintenance done on current equipment, and any changes made to it.

SHIPMAIN's job is to get new equipment tested and qualified before it goes on board.

Sometimes the testing is a proof-of-concept to see if the new equipment/technology will actually be useful to the Navy and have a high

annual cost savings with a reasonable return on investment (ROI). In order to see if the estimated savings will be achieved, a land-based test may be conducted to verify or disprove it. A land-based test facility (LBTF) is kind of like a simulator (say for pilots in flight school), except it is the real thing, and on land, not on board a ship. Certain Naval facilities throughout the country have these facilities. For instance, in Philadelphia, PA there is a half-sized LSD-41 engine room inside of a warehouse, with two operational Fairbanks Morris diesel engines which spin a shaft and a water brake (which is a propeller without the blades to prevent the platform from moving anywhere). This plant can be used to test new oils, oil filters and diesel engine monitoring equipment, but it is also used to train new sailors and officers on the operation of a plant prior to their first sea command. Also at these sites are ship's watertight doors with associated hydraulic actuators to open and shut them millions of times in order to test out the hinges and the gaskets in the door.

Other testing is to make sure that the equipment can withstand the rigors of at-sea use on a warship. These tests include: 1. Electromagnetic interference (EMI) testing to ensure the equipment does not create an interference producing phenomenon, one that may affect the performance of other electronic devices on the ship; 2. Vibration testing to verify that the equipment will be able to withstand the array

of vibrations experienced on board a ship, and to test the integrity of the equipment and make sure that it will not fall apart easily; and 3. Light, medium, or heavy weight shock testing to make sure that the equipment will not shatter into pieces when subjected to a sudden blow (or shock) on board a ship. Since the ship is a war fighting machine, it is likely that she could be exposed to a shock like this, maybe from a striking torpedo or by the ship running into something. The goal on board a ship is to keep objects from flying around when this strike or shock occurs. The safety of the sailors and marines comes first, and the shock tests are conducted to verify that this will not happen. Ships are not even allowed to go out to sea until all divisions have stowed or tied down every single piece of equipment that is typically left loose in port.

The difference between light, medium, and heavy weight shock tests is based on the weight of the equipment being tested, (i.e. the heavier the unit, the stronger of a test it needs). The light test is done by hitting the unit with a 100lb hammer on an apparatus. The medium is similar except the hammer that hits the equipment weighs 1000lbs, swings a lot further, and shakes the ground when it swings into the unit. The heavy weight testing is where the equipment is secured to the wall (bulkhead in Navy speak) of a barge under the level of the waterline and then explosives are detonated nearby under the water.

No matter which test is being done, it is conducted numerous times in all three orthogonal directions, (x, y, and z planes) before the equipment can be fully qualified.

Once all of this testing is complete, and the business case analysis (BCA) calculates the ROI, all of the information is forwarded to the Naval Sea Systems Command (NAVSEA) in Washington, D.C. and the WTA for review and a decision. If and when the WTA for the equipment decides to use the new equipment, he will give his/her authorization as "approved for fleet use" and then an alteration and modernization process will be initiated to get this new equipment on board Navy ships. Sometimes it is not financially and/or technically feasible to put the new item on board current ships because it might cost too much or not fit into



Mark Kaufmann

the configuration very well. In this case, the new equipment will be ordered to be installed on new ships that are being or will be built in the future.

So no, a ship's Commanding Officer cannot go into a hardware store and buy something to put on his/her ship.

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Where you live and how you succeed are joined at the hip

By Jeffrey Gitomer, Guest Columnist

When I say “success environment” what do you think about? Is it the French Riviera where you are out sunbathing and relaxing? Is it a brand new office, with a brand new computer, and you in a brand new suit?

Throw some cold water on your face there, Sparky.

That’s not the environment I’m talking about. I’m referring to the environment you set for yourself -- your personal environment, your success-setting environment. In short, your surroundings both physical and mental, how they play a vital role in your success, and how you can harness their power by taking control of them. Oh, THAT environment.

NOTE WELL: The success environment begins in your head (environ-MENTAL) and manifests itself in everything you do, and every place that you occupy. It also manifests itself through the people you interact with -- your

family, your friends, your business associates, and, of course, your customers. It starts with the “weather and climate” you set in your head. Hopefully yours is set on “sunny and mild.”

Your mental environment starts with a positive attitude and grows to your thought dedication and your acceptance of new things (change), new people, and new ideas. It’s your mental receptiveness, your mental willingness to see the bright side of everything, and your mental ability to turn obstacles into opportunities.

By setting the right mental environment, your physical environments and your personal relationships become the stepping stones to your success. Think about where you live, think about where you work, and think about who you associate with. These are your environments. They’re your surroundings and the people

you surround yourself with.

Is your work environment success conducive? If it isn’t, it’s your responsibility to make it a better one. Is your home environment success conducive? If it isn’t, it’s your responsibility to make it a better one.

Think about how you grew up and where you grew up. And think about the impact that has had not just on your success, but also on your entire belief system. Think about the people you hang around with. Not just the ones at work. I’m also talking about your friends, and your relatives -- maybe even your spouse or your significant other. Are the people you hang out with encouraging you? Are they supportive of you? If they’re not, it’s time to find a new bunch of people.

Is it easy to concentrate at work? Are the ergonomics right? Are your work associates great? Do they help you succeed? How

about your boss?

I don’t think you understand the value and the power of environment. Don’t start working on your home, or your office, or your friends until you have started working on yourself. You have to set your own mental tone for environment, or you will begin to blame your existing environment for your lack of success. This is not a fatal flaw, this is THE fatal flaw.

If you have the right environment in you head, you can slowly begin to create the right environment in every other area of your life. If I tell you that your success is tied to your environment, you may not believe me until you change it in your mind -- your internal environment. Then, and only then, can you begin to watch your success momentum build as you slowly change your external environment.

Here are a few things you can do to create your total success environment:

1. **Create a great place to read, study, and write at home.** Some small space that’s yours. Inhabit the space an hour or two a day.
2. **Set your mental tone by reading positive books and thoughts while you’re in your space.** Write and generate new ideas. Make it a habit by doing it every day without fail.
3. **Make appointments with successful people.** Entice them by creating a value proposition for them as incentive to meet with you.

4. **Create a success space at work.** At work it may be harder to create your own space. But don’t limit yourself to your desk or office. Find an empty room that’s not used and claim it. Even if you’re just there an hour a day to think out ideas and situations. Have a white board or a flip chart to document your immediate thoughts.

4.5 **Be aware of where you are at all times both physically and mentally.** This will give you the control AND the option to change your situation as you go through your day.

You have both the opportunity and the responsibility to create your own environments in everything you do and touch, in every place that you live, in every place that you work, and with everyone that you meet or know.

Success environments do not come easy. You may have a struggle to gain control in some of the elements. **HERE’S THE GOOD NEWS:** The harder you fight for control of every facet of your environment, the easier success will become. Once you gain control of your environment, you’ll also gain control of one other important element in your success. Your bank account.

THINK ABOUT THIS: You spend twenty or thirty minutes a day watching the weather on TV and zero minutes a day creating the weather in your head. Seems pretty silly when you think about it, doesn’t it? What’s the weather like in your head?

Why Lean?

Continued from Pg. S1

Sigma (6σ) provides additional techniques for reducing variation and defects. 6σ has been central to the transformation of many of its adherents, including Motorola and General Electric. (See the diagram comparing Lean, 6σ, and T.O.C., as captured by MTTC’s Senior Consultant Galvin Jones.)

If all of the above is still Greek to you, or even if those are household words, what often matters most is taking the first step. Something you can do right now is to think again about the

value your organization delivers to its customers. As you do so, clearly define or redefine your end customers and the chain of events that brings value to them. That understanding is basic to everything we’ve addressed. Any technique is only as good as the definition of your group’s purpose, the value it delivers, and the customers and consumers you serve. The value stream you document then ties your activities to revenue. Once you know your purpose, Lean can help drive your vision into and throughout every step of every activity every day for every team member.

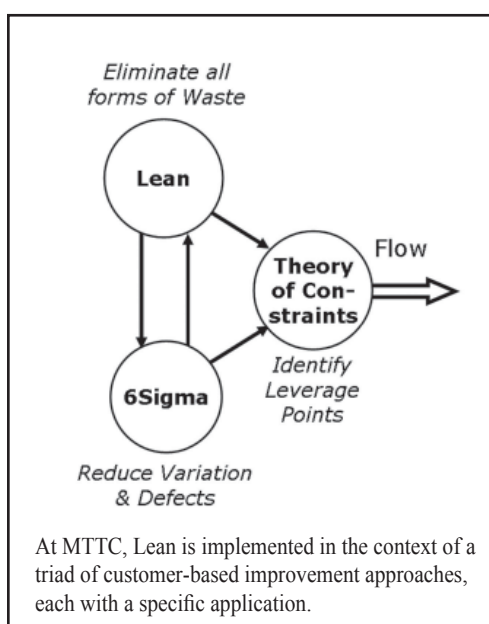
What will you improve first? An Executive Planning Session can be a great beginning for identifying the first set of processes to improve. After decision makers become familiar with the concepts through a simulation or other awareness training, they can quickly see the potential bene-

fits and where to apply them first, such as an underperforming unit, or in the most profitable unit to make it even more profitable.

As important as where to start is just to start. Pick a pilot and run with it. When you do so you’ll see the benefits of a philosophy that advances teamwork, empowerment and change for the better. It’s amazing what well-formed groups can do to overcome long-standing, seemingly impossible problems when approached properly. When sustained, the result is a powerful organizational culture of service, quality, and continuous improvement as the legacy of your ongoing success story.

That’s the magic of Lean. It’s an international phenomenon because it works. It can work for you, too. Begin with value to your customer. Identify leadership and assign teams. Set boundaries and empower change while applying the appropriate techniques. It’s simple. It’s Lean. It’s changing the world. Does any part of your world need changing?

Contact Greg Rowe at GRowe@mttc.org or (502) 638-4488 for additional information.



Jeffrey Gitomer, author of the Wall Street Journal Best Sellers *The Little Red Book of Selling*, *The Sales Bible*, and *Customer Satisfaction is Worthless*, *Customer Loyalty is Priceless* is president of Charlotte-based Buy Gitomer. He gives seminars, runs annual sales meetings, and conducts internet training programs on selling and customer service. Sign up for his free weekly email *Sales Caffeine* at www.gitomer.com. Call him at 704-333-1112. email salesman@gitomer.com.

What is your child really doing online?

Learn more about how to monitor use, what helps, what hurts, and what to teach your children about computer and online safety **before** something happens.

C@n u f1EE lN 7h3 bE@n|<s?

(Can you even understand the question?)

POS _____

WTGP _____

LMIRL _____

A/S/L _____

Your kids can.*

Did you know?*

- ☞ 1/3 of teenagers plan to meet someone they have contacted on the Internet.
- ☞ 1/2 of 16-17 year-olds say their parents know very little or nothing about what they are doing online.
- ☞ Potential threats decrease when parents educate their children about Internet safety.

The popularity of blogs and social networking sites increases exposure to inappropriate content, cyber-bullying, and identity theft. And it's no secret that children are often sexually solicited online. While there is no way to guarantee safety, there are a number of tools that you can use to do more to protect your children and your computer. But you have to know about them.

To address this issue, Innovative Productivity, Inc. and Today's Woman have partnered with the FBI and Tony Sheppard, Psy.D. - a specialist in child psychology, to develop a FREE two-hour seminar for parents on Internet safety. Please join us for more information about the resources available to keep your children safer on the Internet.

* Can you fill in the blanks?

POS: Parents Over Shoulder LMIRL: Let's Meet In Real Life
WTGP: Want To Go Private A/S/L: Age/Sex/Location

* According to the National Center for Missing and Exploited Children.*



Cost: FREE

Date: Saturday, Nov. 18, 2006

Time: Two sessions available
10am-Noon
or
1:30pm-3:30pm

Speakers

David Beyer

Special Agent FBI

Dr. Tony Sheppard

Psy.D., CGP

Donna Lampe

Director of IT, IPI

Fadi Younis

Network Administrator, IPI

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RSVP by November 13th

by email: seminar@mttc.org with
name(s) and
session (am or pm)

or by phone: (502) 638-4415

Limited Seats Available - Reserve Early

TODAY'S Woman

Innovative Productivity, Inc.