

Seven Skills People Need to Create a Lean Enterprise

By Doug Howardell

Lean! Lean! Lean! They're chanting it in corporate boardrooms around the globe. Lean manufacturers, lean enterprises, lean supply chains and lean extended value streams are in various stages of construction by companies looking for competitive advantages in tough markets. Yet, the reality is that only a few companies have achieved any significant measure of lean-ness.

Why are companies struggling to get lean? Is it lack of top management commitment? I don't think so. CEOs, CFOs, company presidents, and the entire executive staff are all on board. The top guys want all the bottom-line savings and increased flexibility that lean promises. Is it a lack of computer systems that support lean? Not at all. Lean doesn't take a computer. It's a set of tools, or more like a toolbox full of tools and techniques. You select the right technique or method to improve what needs improving. There is no technological marvel to instantly make you lean. Is it the people who work in these would-be lean companies? Now we're getting to the heart of the matter.

Companies are not brands that customers recognize, though a strong brand is important to a company. Companies are not the products that they sell, though the right product offered to the right market at the right price is critical to companies' success. Companies are not the buildings they're housed in, the web site that represents them in cyberspace, the computers that house their data, or the processes by which things get done. Companies are a collection of people voluntarily banding together to produce a product or service. In order to have a lean enterprise, you have to have *lean people*. And the people have to get lean before the company can get lean. Lean people make a lean enterprise!

What makes lean people? The convergence of three spheres: experience, knowledge, and skill. Specifically, people need experience in the business or industry, knowledge of the tools and techniques of lean thinking, and the soft skills that allow them to put that experience and knowledge to work. While I'll touch on experience and knowledge, the main thrust of this article is the skills required to take the experience and knowledge and apply them.

Experience

Experience means that, first, you have a thorough working knowledge of the industry in which you work. To have a thorough knowledge of your industry means that you are aware of all the general requirements of the field. You see the big picture that represents your part of the world. Important things you should know about your industry include:

- ❑ Major providers and suppliers
- ❑ Customers, clients, or patrons
- ❑ Standard methods of matching providers and customers
- ❑ Sources of income or funding and how to get these
- ❑ Specific language used
- ❑ Specific governing rules or laws
- ❑ Behavioral norms and expectations
- ❑ And more...

Experience also means you have an extensive understanding of your function in your chosen industry. By your function, I mean the role that you perform within your chosen industry. Your function is your job. Every industry has a set of functions that make it work. A cardiologist has extensive knowledge of how to treat the heart and of how the medical industry works. A house painter has extensive knowledge of paint, painting tools and techniques, and how the home-building industry works. A schoolteacher knows how to work in the education industry, how to teach, and has extensive understanding of the subject she is teaching.

People have sufficient experience to support lean initiatives when they have thorough knowledge of the industry in which they work and the function they perform.

Knowledge

A search of an online bookstore came up with over 16,000 titles on the subject of lean, and that excludes all the books on lean as in dieting. All the books on lean manufacturing or lean enterprise are meant to teach the lean tools and show their application. Clearly, the knowledge part of the puzzle is well covered. Just to make sure we're all on the same page, I'll recap the basic tenets of lean thinking.

1. Specify value from the customer's perspective. What is the customer willing to pay for? What makes them choose your product or service over the ones offered by your competition?
2. Map the value streams. Create a clear simple picture of how value is added to your products or services. Understand the physical flow from your suppliers to you and from you to your customers. Include a time-line showing how long things take and all other related detail data. Add the information flows to show where data is created and who gets it when. Link the physical flow with the information flow.
3. Make products flow. Eliminate all stop and store points. Eliminate queues and waiting. Implement takt time cadence.
4. Implement pull systems. Signaling systems align the operations and synchronize all parts of the company.
5. Perfection. Never give up, never surrender; pursue constant and continuous improvement until all non-value added operations are eliminated.

These tenets should be applied throughout the organization, not just on the shop floor. If the goal is lean manufacturing, then you can apply lean thinking just to the shop floor. If the goal is a lean enterprise or a lean supply chain, then lean thinking has to be applied in every division, department, and work group. Lean sales, lean engineering, lean accounts payable, lean customer service even lean plant maintenance departments are required in a lean enterprise.

Lean enterprises are created using tools from that toolbox I mentioned. A short list of some of lean's basic tools includes.

Value-stream mapping	6 sigma quality
The 5 Ss	Visual management
Kaizen events	Cellular manufacturing
Kanban	Single piece flow
Error-proofing	Self-inspection
Line balancing	

There is only one problem with these tenets and tools — they have to be applied by people. These are the same people who are doing things the old way today, the same people who have been doing things the old way for a long time, the same people who have a vested interest in doing things the way they have always been done. This is the biggest challenge in getting lean. You have to get the experts at doing things the old way to do things in a new way. Do not underestimate this challenge. Anyone who has tried to implement change in any organization knows that getting the people to change is the biggest problem.

Skills

Back to my main theme — in order to have a lean enterprise, you have to have lean people. There are seven skills that make people lean. These are prerequisites to effectively applying lean enterprise tenets and tools. The skills are:

1. Customer consciousness
2. Enterprise thinking
3. Adaptation
4. Taking initiative
5. Innovation
6. Collaboration
7. Influence

Because a company is only as good as its people, these lean people skills are the prerequisites for creating a lean enterprise. Like the tools of lean enterprise, some of these skills are not new in themselves, but they do take on much greater importance for the people of a lean enterprise. We have paid lip service in the past to things like customer responsiveness and teaming. It is time to take them seriously. These lean people Skills should be viewed as a set. Everyone working in an lean enterprise requires them all. A weakness in any skill is the proverbial weak link. It is a flaw that must be corrected. Let's take a look at each of the lean people Skills.

Skill 1. Customer Consciousness

Lean thinking starts with specifying value from the customer's perspective. In order specify value you have to do two things.

1. Know who your customer is
2. Know what your customer wants and expects

Everyone in a lean enterprise should be focused on creating customer value. For everyone to be focused on creating customer value, everyone must know who the customer is. This is too often taken for granted. "Of course we know who our customer is," says the CEO of every company. But does everyone, at all levels of the organization know?

If you ask the sales department, they will tell you the customer's name. But what if you ask someone on the shop floor? Does your plant maintenance staff know who your customers are? Try an experiment. Go to your shop floor and ask someone who is building a product who it's for. If you work in a make-to-order industry, they should be able to name the customer. If you're make-to-stock, they should be able to describe the kind of people or kind of company that will use the product. For example, they might say, "This golf club is made for the weekend player of average skill." About another club, they might say, "This is for the professional golfer." The difference between the two in that example may be key to what the customers sees as value.

The idea of internal customers needs to be deepened in a lean enterprise. If your job does not include direct interface with the customer, then maybe you support someone whose job does. To drive the idea of creating customer value through the entire enterprise, we must treat whoever receives the output of our process as our customer. Engineering creates drawings that are used by manufacturing to build the product, so manufacturing is engineering's customer. Sales creates forecasts that are used by planning to buy raw materials and calculate manpower needs, so planning is sales' customer. People should be steeped in that concept and know exactly who their personal customer is.

Knowing your customer is the first step. You then must identify your customer's wants and needs. What do they want? When do they want it? How will they judge if it has value? Find out what the customer wants and needs and measure yourself at meeting those needs. Never get complacent about this. What the customer wanted yesterday might not be what they want today. You need to know what they want as soon as it changes.

Lean people must continually ask the critical customer questions. "Who is *my* customer?" "What are their needs or concerns?" "Am I meeting these needs?" "How do I know if I am meeting their needs?" Lean people must keep in touch with their customer, identify barriers to customer satisfaction, and eliminate them.

Skill 2. Enterprise Thinking

One of the biggest shifts for a lean enterprise is the shift from functional or departmental thinking to enterprise thinking. Functional thinking causes people to think about their job or their department. When judging the merit of a new way of doing something, they think about the impact on themselves. This causes sub-optimization and territorial infighting. One of the great unseen costs for every enterprise is the cost of defending turf. When a problem occurs, people look for ways to deflect the blame. They spend hours talking, emailing and presenting data about why it's not their fault. When an improvement is suggested they spend even more time trying to make sure the change affects everybody but them.

Enterprise thinking helps people understand how potential improvements affect the enterprise as a whole. Enterprise thinking is where value-stream mapping plays a big part. In value-stream mapping, you map the as-is flow of the entire enterprise. It shows how all the individual activities work together in a process to create value for the customer.

Enterprise thinking can only exist when everyone, from top to bottom, understands what we mean by a process — the conversion of input to output by applying value — and when everyone knows that all work is accomplished by a process. The lean enterprise must get to the point that, if something goes wrong, we look at the process that created the waste not the individuals involved. When we want to change something, we look at the steps in the process and change those. Enterprise thinking means we look for the common good not our individual or departmental good.

Enterprise thinking requires that management and the people know the basics of process improvement, which are; process mapping, process measurement, and process redesign.

Lean people are intimately familiar with process mapping. A picture is still worth all those words. Lean people understand various types of process mapping techniques and know when to apply each one. The more tools we have in our process mapping tool kit, the more likely we are to select the proper tool every time.

Process measurement is the key to any improving any process. It is still true that most people think, however unintentionally, “Tell me how you’re going to measure me, and I’ll tell you how I’m going to act.” I’ve seen affects this kind of thinking over and over. A salesman’s commission is based on total sales dollars so he pushes the high-dollar items, not the high-margin items. Base the commission on standard margin, and he sells the high-margin items but may reduce actual profit by promising delivery in less than lead time. The shop then has to work overtime to execute and actual profit is reduced. Measure the wrong thing or measure something in an imprecise way and you may work at improving the wrong area. Lean people understand how to design meaningful measurements of critical steps in their processes.

Enterprise thinking is used to transform the as-is process to the to-be process. The step of reengineering or redesigning processes to eliminate waste requires that lean people set aside their parochial concerns and think about what’s best for the entire enterprise. An individual in this position may be asked to modify the process in such a way that it makes his or her job harder but eliminates waste for the larger enterprise. There are specific tools and techniques used to redesign processes. These must be understood and applied by lean people.

Skill 3. Adaptation

Being adaptive is one of the most critical skills for people who work for a lean enterprise. Change — technological and social — is the hallmark of our time. Change will only accelerate once we start the lean journey. How we react to change today is, in large part, a measure of how we will fare tomorrow. Management must know how to overcome people’s resistance to change and how help people adapt their anxiety into productive creativity. Lean people need to know how to adapt the changing environment to their advantage. They both need to know how to recognize reactions to change and channel those reactions into contributions or change them. This is not change management, of which much has been written, but skills for individuals to adapt to a changing world.

When customer demands are constantly shifting, products and processes must change to support each new customer order. Lean people are able to adapt to these changes and execute faster than ever before. Changing processes also means that our roles and responsibilities will change with greater frequency. We may have one job today and be expected to do several different jobs tomorrow. Lean people can adapt to these sudden and frequent changes in their work lives.

There is a continuum of reaction to change from resistance to positive acceptance of the change. We can identify where we or someone else is on that continuum by observing behavior in a change situation. There are tools that can be used to help people progress through the continuum. Becoming adaptive begins by identifying where a person is on the change acceptance continuum. Then we can select and apply the corresponding tool to move them to the next stage. The lean enterprise must have people who are skilled at being adaptive and at helping others adapt.

Skill 4. Taking Initiative

A lean enterprise can't afford to have people sitting around waiting to be told what to do and how to do it. One of the keys to becoming lean is to identify waste and to take the initiative to eliminate it quickly. In a lean enterprise you don't study the problem, assemble a group of high-level experts to develop recommendations then send the recommendations out for competitive bid. Lean people see the waste in their area of responsibility, talk it over among themselves and take the initiative to fix it now.

Taking the initiative to fix problems means setting goals. Taking the initiative to set your own goals does no good if you can't figure out how to achieve those goals. Lean people have the skills to create plans to achieve their goals. Setting goals and creating plans are great, but lean people must know how to execute their plans. Lean people understand and use basic plan management techniques like setting realistic time-lines and anticipating obstacles so they can be avoided. They know how to execute their plans by prioritizing their daily activities and working on the critical few instead of the trivial many.

One of the biggest wastes in any company is poor personal productivity. Lean people take the initiative to maximize their productivity, manage their time, and stay organized. This old skill set takes on much greater importance given the independence of work in a lean enterprise. Lean people eliminate waste at the personal level as well as the enterprise level.

Skill 5. Innovation

As a lean enterprise empowers its people to eliminate waste as it is identified, to invent new processes and even new products as needs are identified, it will rely on the creativity of its people as never before. It can no longer be the job of just the engineers or staff experts to improve product and process. Improvement becomes the job of every one and lean people will have to be trained to be able to respond.

The lean enterprise knows how to foster and respond to creativity. Lean people know how to analyze problems, apply critical thinking processes, and analysis techniques. They understand the systems engineering approach to the development of solutions so their changes fit into the overall enterprise processes. People need to know how to think in new ways, how to develop creative responses to new demands, and how to be productively creative in applying lean tools.

The first part of developing creative solutions is to understand the issues. Lean people are well versed in the classic analysis tools like Pareto charts, fishbone diagrams, and control charts. They also are experienced in group brainstorming, and individual creative thinking techniques like mind mapping. Once the issue is understood at the level of facts and data, then we can invent creative solutions. Lean people know about barriers to creative thinking, how to overcome them and the four roles of the creative thinker: explorer, artist, judge, and warrior. Lean people understand different thinking styles and when to apply them.

Skill 6. Collaboration

A lean enterprise has to react fast as opportunities for improvement are identified. There is no longer time to wait to run everything up the management chain or to get new ideas and strategies approved by a large bureaucracy. We have to move now, or the opportunity

may be lost. Collaborative groups who know their processes and how they relate to the overall operation allow a company to be much more responsive.

Collaboration between individuals and groups is an important component of any lean strategy. Management in a lean enterprise needs to know how to establish, charter, nurture, reward, and manage collaborative groups. People need to learn what is expected of them in a collaborative environment, how to be team players, the roles and responsibilities of group members and the basic functioning of collaborative groups.

Waving a magic wand and saying you are now a collaborative group does not change ingrained behavior. Management must determine such things as why create collaborative groups, what are the groups, are they cross-functional or departmental based. Management must decide what authority the groups have. How will the groups be measured and rewarded? What about individual performers within the groups, how will they be recognized?

After management has defined the expectations and limits on the collaborative groups, the group members have to know things like the stages of group development: storming, forming, norming, performing. And they must know group roles: leader, scribe, and process observer. An often overlooked tool is consensus decision making. This is a critical skill that collaborative groups have to apply everyday.

Skill 7. Influence

The lean enterprise needs to have the entire operation pulling in the same direction to achieve its goals. It needs leaders to make tactical operational decisions every minute of every day that are aligned with the goals of the enterprise. And leaders are not just the people who have formal leadership titles. Leaders are people who influence other people and set the direction that other people follow. Influential people are leaders. Sometimes they influence people in the right direction, sometime not. The lean enterprise needs to identify its formal and informal leaders then get them to use their influence to move the organization in the lean direction.

Influential people should understand what it means to lead, know how to take leadership actions, create and share a coordinated vision, align the organization on what needs to be done, and empower people to get things done.

Welcome to the lean decade. It's a new world; we have to change to keep up. Companies that want to thrive have to align themselves around a set of strategies identified by the term lean enterprise. All the goals of the lean enterprise, reduced waste, faster throughput, reduced costs, and higher profits, can only be achieved through the efforts of its people. To achieve these goals, the people must possess the skills to respond to constant change, constant demand for more, and constant quickening of the pace. The lean enterprise must be sure that its people possess these skills. Acquisition of these skills will not happen by itself. Management must put a plan in place. That plan starts with training, continues with more training, and follows up with even more training. Courses need to be designed or procured. Resources and time need to be allocated. Creating lean people requires management to act. Start right away. The boardroom is demanding it, the competition is doing it, and you can't wait any longer. Lean enterprises are created by lean people.