

# Waste not

**Knowing your greatest need is the key to starting a successful lean program.**

**Jennifer Monroe reports**

Even those who aren't entirely familiar with the lean philosophy have some understanding of one of its core principles: reducing waste in all its forms. Many US businesses boast their reduced cycle and set up times, as well as increased productivity. Others have gained so much space through lean efforts they cancelled multimillion-dollar building projects.

While success stories are compelling, it isn't easy to determine how, exactly, to bring those kinds of results to your shop floor. What it takes is trust, as well as radical, physical change, says Bill Schwartz, vice president of TBM Consulting Group, and that can make any operations manager more than a little nervous.

"They've been working hard and they have pride in what they're doing," he said of companies considering a lean initiative. "Their numbers show the performance may not be there, and they acknowledge that. They know they need to change, but people can be defensive. They need evidence that this is going to work."

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Our Panelists:  
  
Martin Ashcroft, Editor  
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Art Smalley writes and leads workshops for the Lean Enterprise Institute. When trying to give beginners some confidence, he tells them a story about one of his former employers—Toyota. "We have this vision of Toyota being excellent and with almost no defects," he says, "but in 1950 when they started systemizing this, the company was borderline bankrupt. It had to fire 30 percent of its employees, the president stepped down, and they were terrible. Their cars were unreliable, their factories poorly run. They started in a much worse situation than you are in today. They were not the all-powerful

great company we think of today, but they figured out a way though the simple notion of waste reduction.

“All they had were their human resources and the methods by which they produced,” Smalley continues. “Other countries had everything going in their favor; and [Toyota] needed to focus on what they could control.”

At Toyota, this trust in what lean can do, as well as an overall vision for a lean program, came from the top down. “When they did this in Japan it was not an employee involvement program,” Smalley says. “However, how we were going to do it was bottom up process. Mr. Ono said, ‘you’re going to do 20 percent more production with the same number of employees; tell me how you are going to do it.’ Americans do kind of mess this up with self-directed work teams. When management gets out of the way, it’s dangerous. It does not guarantee standardization. Management needs to set the vision, what you want to do. When it becomes time to figure how you are going to do it, then involve the supervisors and employees.”

Schwartz agreed, and contended no lean implementation will be successful without total management awareness of the lean philosophy and commitment to using it. In fact, he said the cultural transformation plan is one of the final steps in the implementation process. “It will be one to two years before you can turn the tide and say you’ve started to change the culture,” he says. “You have to have a critical mass. Once you get beyond 50 percent of your employees participating in a lean event, then you have touched enough people that you begin to swing the culture. They begin to solve the problems on their own and they start to talk about waste. You can’t just train a lean team and tell them to go do it all.”

These days there are plenty of resources to help any management team to learn about lean, to get training, and to see the principles in action. TBM clients give tours of their lean factories and even run five-day kaizen workshops in their facilities. AME also offers conferences. Schwartz recommends visiting organizations that already have found success with lean, but with that suggestion, he also offers a caution. “You have to be careful; a lot of companies say they are doing lean but the evidence isn’t there,” he says.

Smalley suggests *Learning to See* by Mike Rother and John Shook, and *Seeing the Whole* by James P. Womack and Daniel T. Jones, as valuable books for any organization starting its lean journey. “In the last few years people have gotten better [at lean implementations] and I attribute that to John Shook and Mike Rother,” he says. “They created a tool to help you frame the picture of your plant and where the waste is.”

Womack and Jones’ publication ranks as the best selling improvement book of all time. It offers eight steps to bring a lean starting point into perspective. “Over the past 20 to 30 years we have become very aware of [lean] tools,” Smalley says, “and the dangerous trap I see is people fall in love with a tool. They think, ‘the tool is lean, so let’s go do the tool.’ That’s fine, it’s not going to do any damage, but it is not necessarily going to get them started in the right place.”

Learning to See leads readers through the following questions:

- What is your takt time?
- Where can you use continuous flow processing?
- What is the pacemaker production process you will schedule?
- Where will you need to introduce supermarket pull systems in order to control production of upstream processes?
- Will you build to a finished goods supermarket or directly to order?
- How will you level the production mix at the pacemaker process?
- What increment of work will you consistently release and take away at the pacemaker process?
- What process improvements will be necessary for the value stream to flow as your future state design specifies?

“These questions help you to frame the whole and then say, ‘our greatest wastes are here, here, and here; what tools do we need to solve these problems,’” Smalley continues. “In the beginning be clear about what you are trying to accomplish. In just ‘doing a lean program’ you can do a lot of things that don’t impact the business. If your boat is sinking you can do 5S all day long and it won’t help you.”

In the same way 5S is often misused as a first step, Schwartz says some people think kaizen is the answer to everything. “They cherry pick with no endgame in mind,” he says. “You have to think about the customer and being more responsive to the customer rather than looking at only cost savings. You need to be thinking about building future capability. Kaizen becomes bricks in the foundation you are trying to create.”

In planning a strategy, Schwartz suggests creating two value stream maps; one that shows current state and one that shows a future state. “That creates gaps to identify kaizen events,” he says. “It allows you to quantify those differences and benefits. If you implement this future state map, you’ll get these results.”

But don’t get lost in the mapping process, as the goal is implementation. Schwartz advised a one-week time frame for value stream mapping and then getting to work. “The next step is to do it and do it aggressively,” he says. “This is where most companies fall down. Lots of people do well with training, planning, and analysis. They study themselves to death but when you go out and look at what they’re doing nothing much is changing.

“We spend 10 percent of our time on planning and 85 percent on implementation and we recommend that’s what companies do,” he continues. “We find companies spend 50 percent of their time on training and awareness, 30 percent on assessment and mapping, and 20 percent doing something about it. Because of all that knowledge the executives say, ‘oh, yeah, we know lean.’”

Smalley agrees it’s not necessarily better for someone to know more rather than less about lean before beginning. “The danger is you try to understand it too much,” he says. “Really you can only learn by doing, and the best way is to plunge in.”

Hayward Pools five years ago took one of the most aggressive plunges into lean after Paul Adelberg, then vice president of manufacturing, and today vice president of lean technologies, saw lean manufacturing in action. “I just stopped in my tracks when I saw with my own eyes what was being accomplished,” he recalls. “I was just taken aback by the entire process.” So impressed was he that he called for implementation of lean at all of the company’s facilities and called off an \$8 to \$9 million building project. “I immediately canceled all of our plans to expand and relocate, and decided to use kaizen in all facilities at the same time,” he says. “The rest is history.”

For those starting out, improvement will be evident within 90 days. “For us that’s the best time to watch a company because everything we’ve told them becomes true,” Schwartz says.