

Maribeth:

Hello, and thank you for joining us for today's webinar, The State of Lean 2020. Before we get started, we have a few housekeeping items for you. The hashtag for today's webinar is #stateoflean. Since this is such an exciting topic, feel free to post insights using this hashtag on Facebook, Instagram and Twitter. And, be sure to tag us. You may ask questions via the Q&A capability at the bottom of your screen anytime during the presentation. We'll attempt to answer all of the questions at the end of the presentation. But, if your question is not answered today, we will plan to follow-up with a response after the webinar.

Maribeth:

Today's 60 minute session is being recorded and it will be sent to you following the presentation for your own reference or to share with others. We'll also send you a link to the Associated Research Report. Now, I'd like to introduce you to our speakers. David Visco is a 5S expert. Beginning in 1985, David launched his career as a warehouse control manager running a distribution center that managed inventory of over \$500 million in value. As he furthered his career, he gained extensive experience across warehouse, production planning, logistics and materials management. Using 5S in the workplace, he saw a unique opportunity and a need for 5S resource. And, in 2006, he founded the 5S Store, the first online store dedicated entirely to 5S.

Maribeth:

The 5S Store provides a massive range of 5S products, free best practices content, and coaching services to 1000s of clients. In 2015, his first book, 5S Made Easy, was published. Today, in addition to his role at the 5S Store, he frequently speaks publicly on the topic of 5S best practices.

Maribeth:

Our second speaker is Bruce. Bruce is the president of GBMP. He's a sought after speaker, concerning management's role in Lean transformation. Bruce Hamilton is noticed for his hands-on experience, his humor and his insight which we'll see today. Before joining GBMP, Bruce held management positions in marketing, IT, operations management, and general management. In 1990, he led his organization to a Shingo Prize. He has over 30 years experience as a student of Lean. Bruce holds a BA and he attended Bowdoin College and the University of Arizona. He's a past recipient of the Shingo Prize in both business and academic categories. And, he's an inductee to the Shingo Academy with five awards in all. In 2015, he was inducted into the AME Manufacturing Hall of Fame. We're delighted to have Bruce join us today.

Maribeth:

I'm Marybeth and I'll be your moderator today, presenting the results of our survey and posing your questions to both David and Bruce for discussion over the next 60 minutes. We have a lot to cover, so let's get started. I'd like to begin with our methodology. So, as you're aware, we put out a survey to companies of all sizes. This began as an effort to create some benchmarks around the use of Lean. And, our intent is to launch the survey on an annual basis so that we can see the changes that occur over time. The survey was conducted and we received 142 responses from companies around the globe, and representative titles of the respondents included what you see on the screen there. So, lots of Production and Lean Managers, Quality Managers, CI Program Managers, etc.

Maribeth:

As we drill down into the detail, we see that the company demographics had a strong mix of public and private companies. Not enough responses, actually, to segment by government agency or nonprofit, but we saw a nice spread across a variety of manufacturing and processing type businesses. And, our company sizes broke down to about 10% of respondents being very large enterprise firms, with more than 10,000 employees, and about half of our respondents fell into the range of the mid-size company, between 100 and 5,000 employees, with a very nice mix of size by revenue.

Maribeth:

So, I'd like to start by talking about the most obvious thing that came up in our survey, which is Lean in 2020. So, we posed to the group, has the pandemic affected your Lean implementation in 2020? And, sadly, perhaps the loudest message that was sent by our respondents was, that the pandemic did indeed have an impact on their Lean implementations. 61% reported being less focused, or on hold with their Lean implementations in 2020. And, when we drill down into the detail on that, we see that some companies actually saw some unforeseen benefit amid the pandemic.

Maribeth:

So, I'd love to put up the slide of quotes that we have here. Here are two quotes that refer to what I'm talking about. Basically, both of these quotes indicate that because these companies had a deeper understanding of efficiency and flexible production, these companies felt that they were able to adapt better to the changing times around the pandemic. So, this is a little silver lining in the story of how Lean was impacted in 2020. I'd love to ask David a question here, specifically around 5S. Can you talk to me about your thoughts about how 5S work and COVID should go hand-in-hand?

David:

Yeah, sure. Thanks, Maribeth. Bruce, thanks for joining us today and everybody else that's on. One thing that I remind people of often, is that 5S isn't just organizing the workspace. A lot of folks think that's the key, but the real key there is that it helps drive behavior change for the better. And, I think all of us could agree that during COVID, we had some serious behavior changes in front of us that we were dealing with every day. And, the irony is that, customers that had 5S in place, they already had a lot of foundational work, the groundwork in place, to start to put new signage out and whatnot, and change behaviors, all due to COVID.

David:

They did a lot of extra setting in order, putting signage everywhere, footprints, wherever you needed them to be, signs on the walls, you name it, right. Then, of course, a new habit. So, 5S is all about, especially in the sustaining piece, new habits and making it all a new habit. Don't we all have a new habit today, which is wearing masks constantly, right? You don't even think about it. And, then if you go to walk in a store or whatnot, and you forgot your mask, you go, dammit, and you turn around and you go back. It's become, pretty much, a habit for everybody, which is very in sync with the nature of 5S and the methodology.

Maribeth:

Thanks, David. Let's talk a little bit about the cultural activities. So, on this slide here, what we see here is some interesting findings. What the data showed was that when it comes to the cultural activities that are associated with a Lean implementation, an alarming number of respondents seem to be skipping some of the important practices, specifically activities to help establish executive sponsorship and team

buy-in. Most companies are working on team spirit over 68% and goal alignment over 66%, but less than half say they have broad team buy-in and only half report that they have executive sponsorship. And, so I'm curious about what you guys think of this. Bruce, I'd like to start with you. What are your thoughts?

Bruce:

So, thanks, it's nice to be joining you and Dave, Maribeth, thank you for having me today. Yeah, so I think there's a direct relationship actually, executive sponsorship, maybe a little hard to understand exactly what that is. In some cases, that means passive support. I'm putting my name on something does not necessarily mean that I'm visible. Commitment is a harder thing to come by. If I saw a 50% executive commitment, I would really be delighted with that because that tends to be kind of low. Larger organizations, it's harder because they can't be everywhere.

Bruce:

But, when we talk about buy-in and engagement from employees, it's directly proportional to buying engagement from management. If management is not visible, not present, it's worse than being passive. It gives the impression that they disapprove. Because, when we are in favor of something, we tend to be there. If there's a late delivery or quality problem, you're more likely to see the executives on the floor, directing traffic, trying to figure out what we can do for the customer. This has always been the case with continuous improvement. And, 5S is a key part of that, that managers, sometimes, I don't think are quite aware of how important their role is in creating buy-in with the persons that they support.

Maribeth:

Thanks for that, Bruce. So, next, before we go on to our next topic, I'd actually like to put up an audience poll. So, for you viewers, you're going to see a box pop-up that asks you this question, for what primary reason does your organization employee Lean? You'll be able to respond right in that box that pops up. We'll take about 30 seconds to allow you to respond to that. And, then we're going to project the results right up on your screen. So, please take a moment to respond. Goodness, I am receiving a message that the technology is not working to put up the poll, which is very unfortunate. So, I'm going to move forward. Oh, there it is. It just came up. All right. So, now that it's up, if you take a moment to go ahead and respond, we'll be able to look at the responses from the audience. Thank you.

Maribeth:

And, if you could finish up your responses. Here we go. All right. So, when posed the question, our Lean implementation has been impacted by the pandemic, about 74% of the respondents said that is true, while 26% said that is false. So, let's move on to the next slide where we look at what was said in our survey. So, when we posed the same question to the larger audience of the survey, we saw that more than half of respondents... I'm sorry, we're moving on to the next topic.

Maribeth:

The reason for Lean. So, we've moved on to the reason for Lean. For what primary reason does your organization employ Lean? More than half of respondents say that they are more focused on cost cutting than they are on customer-driven changes. And, as we analyze these results, we thought that this was a surprising result, because Lean is intended to drive change based on what's valuable for the customer. And, again, more than half here is saying that they're more focused on the cost cutting aspects than they are on the customer-driven change aspects. So, Bruce, I'd like to kick it over to you

and ask, have you seen this happen in companies before? And, what happens? What's the outcome or the risk associated with that approach?

Bruce:

Yeah, so you have to put it in context, Maribeth. Look, we're trying to provide more value with less output. So, that does equate to cost cutting at some point. One of my teachers, Shigeo Shingo, and I'm going to quote him verbatim, said, "The order of improvement must be easier, better, faster, and then cheaper." And, the reason he said that, was that the gains you get in cost, they come out of that sequence of events. Making the job easier, generates buy-in, generates interest. I embrace that. I have problems and somebody's going to help me solve my problems. When those problems are solved, I can now think about improving that system. And, as I do that, we have cost reduction.

Bruce:

The issue is, many organizations are very challenged. Our customers, in fact, are saying, we're not paying more, find a way to cut costs. So, we take it in the wrong order. And, the problem is this, if I say to somebody, for example, I'm going to say, Dave, we're looking at your operation, and we think we found some ways to cut costs, is that exciting? No, probably not. Dave's probably thinking, oh, I know what that means, I've been through that before. That means, I'm either going to have two jobs or no job.

Bruce:

So, cost cutting does not have a good rep, this is what's happened. And, people do not buy into that. But, if I say, Dave, you've got some problems there, you've talked about them, we'd like to work on those and fix them, because you're getting in the way of your work. Now, I have buy in, and I do get my cost reduction. So, it's not so much a matter of whether we're seeking cost reduction, that ought to be an outcome, we ought to be able to do more with less. If you really believe that 95% of the elapsed time of any good or service being produced is waste, there's huge opportunities to cut costs. 5S is a means by which we do this. If I have to spend hours searching for tools, and I'm not able to change over a machine, which means I don't have stability in my operation, which means that my internal customer is not going to get the parts they need, which means I'm not satisfying the customer.

Bruce:

But, if, in fact, I'm doing all those things, and I understand what the value is, I'm feeling better as a provider, I'm reducing the cost, I'm providing better service to the customer. All of those go together. The challenge is, when we look at this from a distance, and not to pick on management... Yeah, maybe that's what I'm doing... When we just see this as some way of reducing the cost of a part without understanding the rest of those means, it does come across as mean spirited. This is not something which is driven by the pandemic, per se, this is pretty much the way this process has been viewed for all the time that I've been involved with it.

Maribeth:

That's interesting insight. Is there anything, Bruce, that you think practitioners can do to change if they're going down the path, too focused on this cost cutting? Do you have any recommendations on how to become realigned?

Bruce:

Well, it's a popular thing, but, certainly, if you can get people out to see what's going on, that's a big deal. If the persons who are making the decisions in the challenges, when there are problems, are the persons who can see them are most of the folks right on the floor. That could be an office, it could be an operating room, could be any floor where the work is done, but the persons that are making the decisions regarding accounting decisions, they're not too close to the floor. They would like to know more, but if they're relying on reports, or secondhand information, they're not actually understanding the relationship between Lean, and the benefits of Lean.

Bruce:

There's so much more that can be done, but we don't see it. So, I always recommend, first thing you can do is, find a way to get those folks who don't know too much about the process, get them out to the floor so that they can see the causal connection between the good work that you're doing, and the impact to the customer, the company and the employees and all of that. And, they get it, people get it. So, how do you get them to the floor? Well, if a customer comes to town, they'll be out on the floor for that. Time to showcase what you're doing, that's a good time to do it. Or, get them involved in some sort of an activity. For example, with 5S, if you can get persons at executive level, who are there to recognize people for excellent participation, get them out, thank you. You might have to give them a few crib notes, if they're not familiar with what's going on. But, they figure it out, they get out there. And, all of a sudden, they're part of that process as well. And, now they see the connection.

Maribeth:

Makes sense. So, one of the other things that we seek to learn in our survey was the breadth of Lean implementations. And, so we asked the audience to tell us where Lean was currently being applied in their organization. So, about 32% reported that Lean had been applied enterprise-wide. But, you can see here on the graph that manufacturing shop floor, procurement, seemed to be the big focal areas. Bruce, were you surprised to see functions like marketing and accounting on this list at all? And, do you have any additional color on how you see Lean used across the enterprise?

Bruce:

Yes, it's a good question. So, A, I'm happy to see them there. The reality is that, the Toyota Production System or Lean is something that was associated with the production floor. Began on a production floor in an automatic motor company. In most organizations, the problems are often seen to be there and they reveal themselves there. If there's a problem, if the parts are missing from a bill of material, you find that out on the shop floor, typically. Or, you might find it out in procurement. So, those departments tend to be focused on first. But, in fact, the cause may be well upstream, in engineering or in administration or marketing. Those are areas that have an equal impact.

Bruce:

I'm teaching a workshop now, which we call enterprise alignment, and it's for the entire enterprise. But, we just have a history, the legacy is, that this was a shop floor thing. And, I started out in marketing. So, I'm fully aware that there's loads and loads of opportunities for doing a better job with the systems that we have there. And, incidentally, the marketing systems, they're going to be a lot different than you would find in other departments. Marketing will look at things. Value stream mapping is certainly something that can be used almost anywhere. But, the systems vary according to department. I'm happy to see that marketing and accounting are involved. More and more, I think organizations are beginning

to realize that, hey, this is a top line tool, we can increase our sales, we can grow with the resources we have. It's growth-oriented.

Bruce:

If you happen to be in a marketplace where the market is not growing, you're more likely to be in that last person standing category where you're trying to find ways to always make more with less. But, oddly, this has just been my experience, in the year of the Coronavirus, most of our customers can't keep up. They can't keep up, the constraint is in their place, it's not with the customers. It's not like they're reaching out trying to find orders. So, we hear about the unfortunate situation, like the entertainment industry and the restaurant industry. Times are very tough there. The constraint is clearly in the market, but not so much with many of our customers. They see these opportunities now, something like 5S, or other tools, as great opportunities to serve the customer better. I'm happy to see that marketing and accounting and admin and these others are there. Not too surprised, actually. It's good that we're branching out.

Maribeth:

Well, you brought up tools, so I'd like to continue on that thread. The next thing that we dove into, in our survey, was the Lean tools that are being used. So, we asked which of the following Lean tools were being employed in their organization. We allowed for them to answer all that apply. So, first off, it looks like there's a big mix of tools being used, but that it's interesting, right? Obviously, 5S seems to be used by 50% of companies. So, David, what do you think of that number?

David:

Yeah, that doesn't surprise me that's as high as it is. 5S is one of the foundational elements of Lean. And, what I find is, a lot of companies start there. That's where they start to put some new behaviors in place, behaviors that they're going to need going forward with the rest of the Lean toolkit. It's interesting, though, I find a lot of my clients, where I'm helping them out with 5S, that's all they want to do, is just 5S. I say to them, "What about all the other good stuff that Lean has to offer?" TPM, in and of itself, there's so much money that could be saved there. "No, no, no, we're good with 5S." I'm, "Oh, okay, well, I love you for it, but there's a lot of opportunity you missing." You can see, down the road there, we got value stream mapping, and SMED and some others, but, yeah, 5S is usually where most people will start out.

Maribeth:

Bruce, for the rest of these, I'm really surprised by the lack of use of value stream mapping. Maybe it's me, what do you think about that?

Bruce:

So, not having seen all of the participants, Maribeth, hard to say exactly. Value stream mapping is something that's been around with us since, maybe, 1996, something like that. Before that, it was a tool that was inside of Toyota. And, it's a wonderful way of looking at the big picture and recognizing the goods and services flow crosswise across an organization. Originally, it was referred to as material and information flow mapping. That's what Toyota called it. But, that, indeed, is the value. The basic idea is, if I have all the parts and I have the people, and I have the machines and I have the information, I can make the part or I can do the job.

Bruce:

So, yeah, it's something that could and should be used by everyone. But, here's the thing, a lot of organizations, this is still new. It's hard to believe I've been doing this now for 35 years, and every day I meet somebody who's never heard of it. It's just the way it is. And, it's normal that when we start out, we start out in an area that we can control. It's a small area. It's just our local controls. We make spot improvements. We don't even actually have a culture where we can cross boundaries. That whole idea of crossing boundaries between departments, that's something that comes along later in a company's growth. We're functionally organized, there are walls between us figuratively and actually. And, that makes value stream mapping a tool, a method, that tends to come along later after we realized that, hey, we've fixed something in our department, but, in fact, the cause of our problem is upstream.

Bruce:

What can we do about that? That means we need to have a culture where we can go upstream and have that discussion. So, I'm not totally surprised. I think it's good that value stream mapping has become available to us. The other tools that are here, they look to me, like you had a lot of machine shops responding. I'm just looking at the tools, the tools that are selected depend upon the industry. So, we choose a tool to fix a particular problem. Multi-process handling tends to be something in an area where you'd expect somebody would be able to handle multiple-processes. I should be able to work with two or three machines, or I could be working on a manual process while the machine is doing an automatic process. And, that indicates to me that there would be machining centers involved here.

Bruce:

If there were a whole lot of people from marketing participating here, you might get different tools. One thing I'll note that was a surprise to me, maybe not so much of a surprise, and that is, one of the most important countermeasures in Lean or TPS, is standardized work. Is, having a very highly specified means of doing a job so that I know how much time it takes, so that it's predictable. So, if somebody says, can you get this done, I say, I know if I have these parts, and of this machine, I have these people, it's going to take me this much time. And, it's under control. That basic science, that's what TPS is based upon. So, you responders, not one of them mentioned it. And, that would be concerning to me.

Bruce:

That being said, that's often the case, organizations look at standardized work, and they feel it's too onerous. It's just too much work, to try and get all of the work standardized. That's still an opportunity for many businesses.

Maribeth:

Certainly it is. So, we actually double-clicked a little bit on the value stream mapping topic, just to expand on this. Only about 30% of companies have mapped all or nearly all of their product value streams. About 11% indicated that they haven't done it at all. I know, you said it's not for everyone, but what companies would benefit from value streams? And, what are the best practices associated with using them? That one's for you.

Bruce:

Yeah, well, you can value stream the top of your desk. You decide what the boundaries are because you're looking at the flow of information and material, and it depends on the problem that you're trying

to solve. And, many organizations, the boundaries will be fairly narrow. For example, in health care, we may have a value stream for the emergency department, or maybe have multiple value streams for the emergency department, because we're looking at the flow of services in a very critical area.

Bruce:

It's very rare, in fact, I'm not sure if I've ever seen it, for, let's say, an entire hospital to have documented the flow of patients from the entry to the wellpoint. Now, that's an ideal, but it's huge. And, it's huge, because hospitals typically are huge and because they are very segmented and specialized. And, let's say, a lot of them are not laid out that well. You get doctors running up and down seven flights of stairs because half of their work is on the seventh floor. So, most organizations will tend to focus on an area of greatest need. For example, you will see value streams in the hospital in EDs, because emergency departments are so critical. You would see them less in other areas. And, it's just a big task. Also, it's normal in an organization that some parts of an organization will be further along than others.

Bruce:

So, some parts of an organization may have gotten to their boundaries and they said, we understand that upstream and downstream is where we need to focus, we now have that line of sight, and we're now focused on that, while others are still back trying to figure out, why would I even want to do 5S. You get both ends of the poll in the same organization. That's why you get this variation. And, honestly, I would rather see one really deep dive into a single value stream than to have that inch deep, mile wide attempt where everybody's drawing a map, but none of them are doing anything.

Maribeth:

I think that's great advice, Bruce. Thank you. So, our next topic is about waste. So, in looking at the overall efforts to reduce waste, we, once again, saw this focus on cost reduction as the biggest motivator about which practices were adopted. We'd asked a variety of questions that were waste-oriented. We asked about talent waste, process waste, eliminating waiting, transportation waste, etc. For example, in the case of transportation waste, the practices that kept production components in the immediate vicinity of a workspace, were super popular, yet practices that require looking at the entire production process were less popular.

Maribeth:

So, specifically, 47% of respondents say they ensure that production materials are located at the cell where they're going to be used, and no longer than an arm's length away from the worker. But, only 10% say they have minimized the distance for materials to be transported to and from a production area. When it comes to overproduction, high percentage of respondents, 88%, said, that they are working to address overproduction, but their methods differ. WIP limits are less used, then I thought they'd be, etc. I'd love to start with you, David, on this one, how can 5S help with the reduction of waste?

David:

Oh, my, it's like shooting fish in a barrel. Well, most common, as most folks are aware of, is searching for tools. Either searching for tools, or information, or even direction in what to do next. Typically, people waste around 20% of their day, their workday, is wasted on not knowing what to do next, where to find what they're looking for and whatever. 20%, you do the math, that's pretty significant.

David:

But, another huge waste is the waste of talent. Right? So, in 5S, you can see that during the audits, if you're doing your audits properly, you're getting involvement from the people, right? All your employees, your groups, your teams, or whatever, are involved in providing ideas. And, that's a huge waste if you're not doing that. If you're not tapping in to the employees ideas and getting things to flow from the bottom up.

David:

What I see a lot in companies, though, is that audits are done just to create a chart on a board somewhere, 5S audits. There's no communication involved. The whole idea there is, to improve the line of communication across all sides. So, 5S can really help overturn a lot of those wasteful steps and lost talent along the way.

Maribeth:

Thanks, David. Bruce, I'm curious if you can give us any color on what you think is behind what we see in the data here. And, any advice on addressing waste?

Bruce:

Well, the whole concept of waste is, I like to just say, it's anything that gets in the way of my job. But, with the exception of the waste of lack of creativity, that kind of thing, these are all industrial engineering wastes. Storage, conveyance, defects, all of these, you can ask this simple question, why not have? You can cut them in half, and you can cut them in half again. If you ask the question and you start looking at breaking down why... for example, in terms of transport waste, you can ask why not have? I can't really deliver material twice as often because it's so far away. Well, if we the distance in half, can you deliver it twice as often? Why would I want to deliver it twice as often? Well, because the factory is not a warehouse. Because, I should only have the material that I need.

Bruce:

One thing that a lot of organizations will do when they start out is, they think the solution to the problem is to put all the inventory at point of use. Sometimes, there are items that you can't have at point of use, but if they're not needed, that's waste of storage. And, in some businesses like electronic assembly or something like that, where the parts are very small, you can fit it. It looks like it's okay. And, maybe, if you're lucky, you can get it within an arm's length of people. More likely, you can't, because there's a lot of parts.

Bruce:

So, it's a half measure, because you haven't dealt with the fact that the conveyance is such a problem. Shigeo Shingo pointed out something that's pretty obvious, that the only way to reduce the waste of transport is to change the layout of your plant, or your organization. Same in health care, if we're trying to change over rooms between patients, and all the linen is in a different building, don't expect the change to happen very often. Transportation is a waste. Now, we could say, oh, we're going to automate that. We got robots sending all this stuff around. Well, you haven't done anything at all. Actually, you've just replaced a person with a robot and you still have the same crummy layout, and you still have inventory in the wrong spot.

Bruce:

So, oftentimes, we do what we think we can do. And, changing a layout in a plant is a decision which requires, first of all, a deeper understanding more of a systemic look at the process. And, it also is something that has to happen with somebody who has a higher level of responsibility. There could be some cost involved. So, in terms of waste, getting more focused on waste, I think it's just important for persons to recognize that small changes are just fine. That's all we're looking for. So, I've been talking out of both sides of my mouth, because I'm talking about changing the layout. But, in fact, if I can move a tool to my left side, rather than my right side, so that when I'm picking it up, I'm not reaching across my body, or I'm not turning around, or back here to gather parts, because they're not in front of me, all those add up and they accumulate in remarkable ways that we don't actually understand until we start to do those things.

Bruce:

And, the good news is, that those kind of things are things that everybody can do. The slogan of my little organization is, everybody, every day. And, the reason for that is, that's where we get the big improvements, actually. It's the summation of all that little stuff. It turns out that it's not so little. And, it's that stuff, which alerts us to the bigger opportunities, such as a system-wide type of thing of improving our transport.

Maribeth:

Thanks for that. David, I'm going to throw another waste-oriented question in here, and have you talk about red tagging a bit, if you don't mind.

David:

Yeah, as far as what exactly?

Maribeth:

In terms of wasted equipment, things that aren't being used and creating spaces that allow for better movement for production purposes.

David:

Oh, okay. Yeah, it's funny, a lot of places I go into, I don't see much of a red tag program, especially with folks that supposedly have a strong 5S initiative going. Very rarely do I find them, I've reached out and asked hundreds of customers, send me pictures of your red tag area, and nobody has them. It'd be great if that's because they cleaned them all out, but that usually isn't the case. Where red tagging will help in the waste process there is, the whole concept there is, to go through your area, left to right, top to bottom, and see what it is that you don't need. And, if there's stuff that you might not know of, if you need sorted out, tag it, have somebody involved there that can figure out what to do with it, and move it on. Maybe, move it to an area but have somebody manage the red tags for a time. And, staying on top of that will really help.

David:

I've seen places free up half of a work cell just by going through a strong 5S effort. Just that little piece alone, because you move all the stuff out of the way and you can reorganize and set up with better flow

and use the rest of the Lean toolkit, certainly. Yeah, red tagging's just one small piece that can help free up space.

Maribeth:

It's certainly worth doing. Great, let's move on to quality control. So, we did ask questions of the audience. We asked, to what extent are you employing quality control measures? It looks as if there is widespread focus on quality, which is good, but it also seemed that a large amount of respondents are only able to focus on some of the defects that are being created by their various processes. Obviously, this is an important topic. So, Bruce, I'd love to spend some time with you on quality control here. So, what are your thoughts on why we saw these results and what the impact of that might be?

Bruce:

It's concerning, I'll say that. Rule number one is, never pass a defect, ever. What I'm seeing here, people are taking steps. Okay, I'm not sure what that means, if, in fact, they're only focusing on some of the defects. It's a challenge, it's definitely a challenge. Oftentimes, defects manifest themselves in other ways, in missed deliveries, in higher costs. Customer didn't get his product on time, or we had to pay more for it because of all the rework that's in our plant. Even companies that suggest that they never have a defect leave the plant, if you visit, you often discover that the entire floor is just rework. It's sorting and reworking policies that accept material that's not right. Drawings that say, rework is necessary. That the policies are there, because we anticipate those problems. We expect that, hey, this stuff happens. That continues to be, I think, a general condition in industry.

Bruce:

I think, in some respect, it's because, when you have lots of extra inventory, if you have a bad piece, you just throw it over the shoulder, and you work on the next one. If we have lots of work in process, and there are defects, we work on the product that doesn't have the defects. So, it's hidden from us in that respect, but it's a huge cost driver. And, I think the reason that we don't see more of it is because the persons who need to understand the impacts of poor quality are not close enough to the process.

Bruce:

For example, Kanban pull systems just will not work, if they're filled with defects. They just don't work at all. They just fall apart, nobody trusts. It's like, when you go to the store, and you're shopping, here's your Kanban system, you're pulling material off the shelf. Do you open all up? Do you open the bread to see if it's moldy? Do you look at the eggs to see if they're cracked? Do you smell the milk to see if it's bad? No, because that system works, because they're taking care of that. And, they have a narrow, shelf, broad selection. But, that's not the way it is. That's not the way it is in industry. That's what we have to do, every time we get something, we have to check and see if it's okay. And, incidentally, the same is true of information.

Bruce:

If you're an insurance company, and the first thing you do is call the previous process to check on the correctness of the information, the problem is invisible to you. There are entire functions in companies whose job it is, just, to check on stuff that should have been right the first time. This is not the fault of the people who are doing the work, it's the systems that we put in place. My former job, we were realizing that we had purchased prints that said it was okay. We could accept stuff that was bad, that we had an acceptable quality level. I'm saying, well, how could that be.

Bruce:

So, there's a higher level issue in terms of what we consider to be adequate. I think, underneath that, there's this fundamental belief that things can't be perfect. Okay. As a result, we accept a lot that we shouldn't, and that drives these other behaviors.

Maribeth:

Those are good points, and quality control and having a culture of continuous improvements to me, they live hand-in-hand, right. And, we saw, overwhelmingly, the majority of people are using Kaizen to make improvements, right, 88% said that. But, there's 12% holdouts, right. So, Bruce, what's the risk for them?

Bruce:

Yeah I'm not sure. Actually, if 88% of organizations surveyed actually making improvement, I'd be pretty happy with that. It depends on what they mean by improvement. Kaizen is one of those words that some companies think is only for big events. So, they might be saying, no, we don't have big events. They might just call it, just do it's, or, yeah, we're fixing things on the fly. So, it could just be semantics, understanding what Kaizen is. Yeah, I'm thinking that's probably it. I'm happy to see that, apparently, 88% of the respondents had some idea of what we mean by continuous improvement.

Bruce:

Just so you know what I think, I like Misaaki Imai's definition, that continuous improvement has many small changes for the better, to come from the common sense and experience of the people who do the work. And, that includes all that 5S stuff that Dave is working on, that they know. Folks are there, they know where the stuff belongs. And, they're the ones who can make changes every day. So, if that's going on at 88%, I'll take it. I don't know what's going on with the other 12%. They may not know what Kaizen is. It may be that the word is just not known to them.

Maribeth:

Good feedback. So, our last topic that we're going to dive into before customer questions, and, by the way, I encourage you to get your questions in via the Q&A function, so I can get them all teed up in order before we start that, and now's the time to do it, but here's our last topic. So, we're going to talk about measures of performance, right. And, so we put out seven different Lean measures of performance. And, we asked them, which of the following measures of performance do you employ? Check all that apply. And, so what you see on the screen here is that, not all measures are used by everyone. It appears that delivery schedule achievement and people productivity are the most popular measures being used. And, then there's floor space utilization and NRFT, those were a lot less popular.

Maribeth:

So, David, let's start with you, how does floor space utilization and 5S work hand-in-hand? And, would you like to see companies tracking this metric more than what we saw in the survey results?

David:

Oh, heck yeah, I would definitely love to see people tracking that. Going back to earlier, when we're talking about cost reduction is the focus of a lot of folks for 5S and Lean and whatnot, when that comes up, when I'm talking to an executive or whatever, or even a general manager or production manager, who's been told, I've got to implement 5S because I need to cut costs, and they'll ask me, they say, "Can

you prove to us that we're going to cut costs?" I hate going down that road, of course, but this is a fantastic metric to give to them. Because, for a manufacturing facility, the square footage cost is significant and you need to get an ROI on that.

David:

So, 5S, in and of itself, through doing a spaghetti diagram, sitting in the corner, watching what's going on, doing the sorts, the set in order, getting all that in place, should free up floor space, like we talked about, even with the red tagging earlier. You could even get to the point where you freed up so much floor space that you can bring in another piece of equipment, and build more widgets, which is going to increase revenues. One company I was at years ago, we went into that heavy and it was all focused on space utilization and 5S really helped us in that regard. To the extent that it helped save that facility actually from being closed down. Because, we were able to bring in more new product development, and product manufacturing into that facility, that other facilities couldn't because they were a mess, for lack of a better term. And, what we did was, we just got so much better with Lean and 5S and organizing and making floor space utilized so much better, it literally save jobs.

Maribeth:

That's helpful. Let's kick it over to you, Bruce. So, what words of advice do you have regarding measures of performance? What did you think of what we saw here?

Bruce:

Yeah, so let me just follow-up on what Dave said briefly, because he's focusing on space. Without getting into the space time continuum, there is this relationship that, in fact, half of our floor space is taken up with stuff we don't need, and that's not unusual. That's not unusual, for storage of things we don't need. Then, if we compress that, guess what, we also have made conveyance easier, we've reduced motion. So, David referred to spaghetti diagrams. And, he also made the point that we've opened up the possibility that things that are absolutely in the wrong place can now be moved to the right place. And, that creates the opportunity for things like continuous flow of material that we might not have seen before.

Bruce:

So, it's not just floor space. Yeah, floor space is expensive. Take the opposite, because sometimes companies will say, "Oh, we're growing." I'm, so, what do you mean? Well, we're doubling our floor space. And, I look around and say, "Why are you doing that? Because, "Why are you doing that, can't you make it in the space you got?" They say, "Well, you know, we got a loan, and we're doubling our floor space." I say, "Well, what you're going to be doing is, doubling the distance that everything has to travel, if you're not careful. You'll be doubling the excess storage space for things you don't need."

Bruce:

5S does a nice job of alerting people of that. It's not even obvious. Oftentimes, the worst situation with 5S is when it looks organized. Companies will put labels on things and it looks nice and neat. And, incidentally, the same thing happens in offices. There can be old filing systems that nobody uses. And, the ones that nobody uses, they're the ones that are right up front. And, the ones that people need, well, you have to put them somewhere else, because you get all these files that are neatly organized, that nobody needs right up front. So, the relationship there with floor space, it has many more potential good benefits. I just want to comment on that.

Bruce:

Also, I'll say there's many more measures, certainly, that we could put in here. A couple that I think are missing. First of all, safety's got to be on there, that ought to be right up top. And, engagement. Things that focus on persons. Dave, when you were talking earlier saying that, a waste of loss of human creativity. If organizations are not looking at that consciously, we just lose track, we forget, that, hey, any of this value that we're getting, is coming from our employees. So, those are some key measures that... those two, safety, which is also certainly about human development, to make sure that we're recognizing the providers of the value and not just the customer.

Maribeth:

So, you've given me the perfect teaser for the report, because safety was addressed in the report, but not addressed in today's webinar. So, thank you for that. So, we've had a number of really great questions come in from our audience. And, I'd like to pose them to both David and Bruce. I'll try to point them in the right direction where I can, but either of you can feel free to chime in whenever you feel like it. The first one has a little background with it. So, executives, they play a very important role in Lean transformations. They'll even agree with that. But, there are many other drivers that seem to get in the way. Some are invisible, some are known to a few, but not others in the organization.

Maribeth:

So, the question is, how can we deal with the invisible cultural attributes that, in the end, force the executives to make a decision to either go full on Lean or kill the Lean program, so that they'll really go full on Lean? I think this is a good one for you, Bruce, what do you think?

Bruce:

Yeah, so, first of all, I think something that every organization needs, every organization needs this, they need a burning platform. If they can't figure out why they're doing it, you're leaving the top executive out there where he or she feels uncomfortable, because they actually work for somebody, too. Somebody who's even further from the floor than them. There's got to be a reason. It could be cost. If it's cost, yeah, fine. It could be that you're getting killed on delivery. It could be, right now, people can't find enough employees. It's hard to believe we have all these unemployed people, but we can't find workers to build the product.

Bruce:

There has to be a burning platform. I have to have an emotional connection with this, and I have to share that emotional connection in order to give me the latitude to make these changes. I forget who said this, but John Shook reminded me of it a couple of years ago. He said... I think this comes from a French General... "Never let a good disaster go to waste." We need to have that. We need to have some emotional connection. Companies that are doing Lean for Lean's sake, they're starting off in a very weak position. The average CEO tenure is three years. So, they got to be very careful about what they support and don't support and occasionally you get some transformational leader who, in spite of all that, will stick his or her neck out.

Bruce:

Occasionally, you get a daisy who grows out of a brick walk, too, but it doesn't happen very often. So, you've got to have that first piece. I can't show a passion commitment for change if I can't have that burning platform.

Maribeth:

Thanks, Bruce. The next one looks like it's probably for you, David. So, the question is, to develop a culture, you must first establish a habit, in your experience, how long does it take an entry-level business to get to a position of having 5S as part of their embedded culture?

David:

Oh, wow, what a question. And, that's all over the map. Sadly, unfortunately, I don't see they get there too often. I talk about this a lot in my next book, many times, it winds up being a flavor of the month. But, let's suppose those companies that are actually all in on Lean, you could start making habits pretty quickly with 5S, as long as you're doing it right. Just making small improvements every day. I would say if you just looking for a hard number... it's tough, because it depends on what's the size of the company and whatnot. But, probably, three months or so, I would say. Three to four months before it really starts becoming a thing.

David:

But again, that all depends. Some companies will do an audit once a quarter. And, the audit isn't the only way to make 5S a habit, not by a long shot, but that's just an example. In that case, you're probably not doing the right things to get 5S to be habitual. So, it depends on the cadence that you're pushing 5S through, as to really how long it's going to take. But, what I find is, a lot of folks make 5S way more difficult than it needs to be. Just small improvements every day. You could get there in short order, actually. So, again, depends on how often they're doing all the little pieces of it. But, if they're doing it right, it should be no more than a few months, I would think.

Maribeth:

Thanks, David. The next question, I'm going to pose to Bruce, so when trying to be Lean and working with a Lean size team, what points would you focus on first to get a solid footing?

Bruce:

Well, I think, first of all, you need to understand what the opportunity is. Typically, if I'm visiting an organization, I'm trying to figure out the problem they're trying to solve. As I mentioned earlier, because they can't keep up, is it because they have lots of problems with information, bills of material are wrong, wrong parts go to the floor, missing parts. What are the headaches? I'd mentioned earlier, easier, better, faster and cheaper. Let's take a look at the things that are really driving people nuts, and work on those first. They'll tell you know, they'll help you with that.

Bruce:

Also, I'd suggest that you pick an area that's a proof of concept. There are some rare organizations who are really raring to go and others who they say, we don't have any time for this. And, they're saying that because they don't yet understand that there's any benefit. They're already struggling, they have some problem. Pick some problem and solve it. Our learning is that, hey, we tried this, it worked, let's try it some more. And, if you pick a narrow problem and solve it, you've also developed internal capability.

You got some folks on site now who are starting to get it and they can reach out. Now, you expand those boundaries, and you pick another project, and you get more people involved. So, that's the approach that I like to take.

Maribeth:

Thanks. Our next question, this one, I'm going to be honest, I'm not sure who to point this one at and it's very specific, but I'm going to ask it anyways and I'm going to have you tried first, David. This one is, so do you guys have any suggestions as to how to consolidate newly available space that's broken up into small pieces, similar to de-fragmenting a hard drive? Lots of small areas that are not conducive for alternative uses. Any suggestions? That's a tough one.

David:

I don't have anything. What do you got, Bruce?

Bruce:

So, it's valuable to remove things from the workplace that are not needed, to make it obvious. That's good by itself. And, sometimes it's not immediately apparent what you can do with the space. I remember, many years ago, Wiremold was a poster child for Lean for a long time. Still is, in many respects. But, when they freed up space, they put in tennis courts, basketball courts because they didn't have any reason to have it, at the time. And, they did that, to make the point that they didn't want anything else there. So, at the very least, if you free up that space, put a big red X in the space and say, nothing stored here. Because, space does not like to be free. And, pretty soon, if you free that space up, and you don't say, don't use this space, it does get used, and it's almost always for the wrong thing.

Bruce:

So, it kind of, depends on the condition. In an assembly type organization where things are on benches, and it's lighter, yeah, that de-fragmenting is almost automatic, it's not hard to do. If this is space in a machine shop, it's harder. But, actually, if you think hard about it, sometimes there's a manual operation that can easily be moved in with an automatic operation. In fact, I can think of examples where machine shops freed up space, and they actually moved an assembly operation in and the person who did the machining also did the assembly because she had time. She had time. Now, that presents some other problems for an organization because somebody who's distant from the process may say, oh, well, we shouldn't be paying that high paid machine has to be assembling those parts.

Bruce:

So, that's the obstacles that you get, because if you were on the floor, you'd say, well, she's standing there, she can do it, she knows the part, rather than sending him to the customer. So, there, oftentimes, are more opportunities. I certainly say, if all else fails, go to the people who do the work and ask them how they'd use the space.

David:

There you go.

Maribeth:

This transcript was exported on Feb 26, 2021 - view latest version [here](#).

Thanks, David and Bruce. That's all the time we have for questions today. But, I would like to let our audience know about a few things that we have happening. So, first of all, you'll receive an email follow-up from this webinar that includes a link to the full report, the State of Lean 2020 report. Also, because we had such robust data in our survey, we are conducting a State of 5S webinar separately in April. So, watch your inbox for invitations to that. We hope to see you there.

Maribeth:

Also, on the screen, there's a bunch of resources that you can use. David's book, 5S Made Easy is available on the 5S Store website. And, we offer a bunch of free online best practices on our 5S Blackboard which is part of the 5S Store website. There are Lean and 5S best practices, articles, photos, tools, etc., listed on there for your use at any time. David's contact information is up on the screen if you'd like to contact him directly, as is the 5S Store URL. And, on the right hand side, is all of our social channels. We hope you'll give us a follow. Thank you so much for joining us.