

Lean Enterprise Institute Webinar
Strategy Deployment in Action:
One Executive's Perspective
Originally presented: March 12, 2009



Lean Enterprise Institute
lean.org

Strategy Deployment in Action:
One Executive's Perspective
Originally presented: March 12, 2009

Chet Marchwinski: Hello, everyone. Welcome to The Lean Enterprise Institute's Webinar, *Strategy Deployment in Action: One Executive's Perspective*, with Dave Brule, Executive Vice President of Northern Star Industries, and Pascal Dennis, author of several books on Lean implementation including *Getting the Right Things Done - A Leader's Guide to Planning and Execution*, which is also the title of a workshop that he teaches as an LEI faculty member. I'm Chet Marchwinski, LEI Communications Director. Welcome to today's webinar in which we'll take a practical look at how a real business uses strategy deployment.

Here are a few tips to make sure you get the most out of today's training. Use the volume controls on your computer to adjust the sound. Use the button beneath the slides on your display console to enlarge slides. To ask a question, click the "Ask a Question" button on the left side of the screen, type in your question in the pop-up box, and hit submit. We'll save time at the end of the presentation to answer your questions, but you can submit questions at any time during the webinar.

Later in the webinar, a survey form will pop up on your screen. Please take a moment to give us your feedback so we can keep improving these

Lean Enterprise Institute Webinar Strategy Deployment in Action: One Executive's Perspective

Originally presented: March 12, 2009

webinars. Now let's meet today's guests. Dave Brule is Executive Vice President, Director, and Co-owner of Northern Star Industries. Northern Star is a manufacturing company located in Iron Mountain, Michigan in the heart of Michigan's upper peninsula. One of its two divisions makes snow plows and related equipment. The other manufacturers electrical relays and control panels. The company was founded in 1959 as an electrical contracting business by Dave's grandfather. The family sold the construction division in 2000. The manufacturing portion of the business started in 1962. Now the company employs about 400 people in three manufacturing and warehouse facilities, totaling 350,000 square feet. It had revenues of over \$140 million last year. Dave joined Northern Star Industries in 1997 after spending five years as an investment banker and venture capitalist and began the company's Lean journey two years later. Since then, NSI has seen revenue grow more than 500% and productivity improve by more than 60%.

Pascal Dennis is a professional engineer and advisor to North American companies making the Lean leap. A former manager in operations, human resources, finance, health, safety, and the environment, the focus of his Lean implementation work is on strategic planning and execution, quality, delivery and cost management, health & safety, and business process improvements. He began his Lean education at Toyota Motor Manufacturing, Canada, where he worked with Lean masters from North America and Japan implementing concepts such as strategy deployment, Kaizen, A3 reports, standardized work, and visual management. In leadership positions at TMMC, he supported the launching of several new models and the hiring and training of 2,000 new team members. Pascal supports Lean transformations through Lean productivity networks and is a member of the Lean Enterprise Institute faculty. He also is the author of *Getting the Right Things Done - A Leader's Guide to Planning and Execution*, which is published by The Lean Enterprise Institute and won a 2008 Shingo Research prize. He has also written *Andy & Me: Crisis in Transformation on the Lean Journey* from Productivity Press which won a 2006 Shingo Research prize. And he wrote *Lean Production Simplified: A Plain Language Guide to the World's Most Powerful Production System* from Productivity Press, which won a Shingo Research prize in 2006. Now it's my pleasure to introduce Pascal Dennis. Pascal?

Pascal Dennis:

Hi, Chet, thanks for the introduction and thanks to LEI for the invitation to join our webinar. What is strategy planning? [brief technical difficulty in audio] business system. And I say business system, not just production, because we're thinking upstream in new product development, voice of the customer, and all the way downstream to distribution, transportation, right to the customer site.

Lean Enterprise Institute Webinar Strategy Deployment in Action: One Executive's Perspective

Originally presented: March 12, 2009

So nervous system means connection. How do we connect overall business needs with day to day activities? Brains means how do we apply the scientific method so that we can get to root cause, run experiments, and continually get better. I've chosen a series of gears to illustrate strategy deployment on your screen. And I know Jim Womack doesn't like the title, *The Machine That Changed the World*, but the Lean business system is a machine in at least one important way.

The magic of gears is that if you have a mode of force in one part of a machine, through gears you can transmit it to 25 other parts. Similarly, in the lean management system, through these gears of strategy deployment, the mode of force in a senior management team can be transmitted effectively throughout the company. So a little bit of motion with good thinking can be multiplied very quickly.

Now the connection between the gears is not physical in strategy deployment as it is in a machine. It's management processes for example, our check adjust process. It's mental models, the way we think about things. It's this process we call catchball through which we develop a shared understanding. But the concept of gears is very important and central to strategy deployment. Now it comprises four basic steps. Step one is develop the plan. Dave, six years ago when we first met, your company was successful, you were growing, and I remember we talked about how you needed something to align your activities. Can you take us back and share with us what brought you to strategy deployment? Why was it important at that particular time in your company's history?

Dave Brule:

Well, Pascal, we had been doing lots of the Lean activities and I'm sure this is similar to so many of the listeners here. We were doing Kaizen events, we had implemented Kanban systems, we had done lots of flow analysis, and we were creating standardized work, lots of 5S work. And we were getting to a point where we needed to connect everything to say, why are we doing all of this stuff? It's all great stuff, we're making great progress, we've squeezed a lot of waste out of the system. But how connected is it and how unified is the message from the top down as to what are we supposed to be doing? We had a lot of activity much not very much of it seemed to be aligned and at that time I was doing lots of reading and saw that Pascal had the training session at LEI and it seemed authentic that he had worked at Toyota, so that was the beginning of the rest of the story, as we say.

Pascal Dennis:

Now six years later, the company is wonderfully successful, and I take a vicarious pride. I guess I'm kind of like the idiot uncle with the brilliant

**Lean Enterprise Institute Webinar
Strategy Deployment in Action:
One Executive's Perspective**

Originally presented: March 12, 2009

nephew. But can you take us through some reflections, some learning points over the past six years of practicing annual PDCA and deploying and checking and adjusting your strategies?

Dave Brule:

Well the first thing I would make a comment about, Pascal, is boy, we weren't very good at it. Or it sure feels like that. If you look back at what we did six years ago, it always feels like we didn't know what the heck we were doing. The key there is to just keep plugging away. In using the Socratic method, a lot of questions -- what do you mean by this? How does that work? And why are you measuring that? Why is that important? And we've got a lot of very talented people. We just get caught up in what I might call misdirection. We think we're supposed to do something. And we'll talk later about a good example where we used an A3 to clear up our thinking and we thought that we needed to counter one of our competitor's moves by doing basically exactly what they did. And as it turns out, we were totally wrong. We did something different and it was a better result.

So in general, the reflections and the learning are this is a difficult process. This is, as Pascal says, this is heavy lifting. It's not easy, but the result looks easy. And to me, that's brilliant engineering. It's difficult to get the work done, it's difficult to boil this down to a really good, effective one-page analysis of your strategy. But when it's done, boy does it make sense. And it's really easy for everybody in the organization to understand it and use it.

Pascal Dennis:

Now Dave, you and I have talked about how command and control is "an easy way" to develop and deploy a strategy. Well the people who are presumable very smart and very experienced define what everybody else has to do and tells them how to do it. Now that is easy in the sense that you get people doing what you want very quickly. Now you didn't take that approach. Can you maybe give us some sense of what was that like, taking a questioning approach and not giving people answers and not being directive. Any reflections or stories you can share with us about that?

Dave Brule:

Well I'll tell you, for a lot of folks I think it's really frustrating because we feel that we know the answer. And the toughest thing with a PDCA cycle and especially with the A3 process is you can't do it yourself. No one individual can do it. Even if you know the answer, it's really important that the people that are doing the work figure it out. Because no single person is going to be available to answer every question all the time. And if you think that's the case you're probably wrong. And as the company has grown, when I first came here we were under 100 people and now

**Lean Enterprise Institute Webinar
Strategy Deployment in Action:
One Executive's Perspective**

Originally presented: March 12, 2009

we're up to 400. It's very difficult to have one individual or to try to rely on a small team of individuals to answer all of the problems.

We've got so many problems, every single one of us does, every day. We have to rely on those really bright engineers and team members to get the work done.

Pascal Dennis:

Very good. Well let's dig into the four steps of strategy deployment and I'm looking forward to hearing some of the stories and reflections and experiences you can share. Now step one is develop a plan. And I call it storytelling. To develop a plan, you've got to answer some very basic but very difficult questions like where are we going? Which entails answering, who are we? Who are we? What's important to us? And how do we get to where we want to go? What's our future state look like? What's preventing us? And we have to get good at boiling things down to one page. And that one page we call an A3. And I've always thought of A3s as money. In an economy, if you have the same currency, transactions happen really quickly. Similarly in a company, if we're using the same money, the currency of the A3 if you will, we get to talk about what's important very quick, so the lead time to problem resolution is condensed.

So in that context, Dave, can you share with us how did you and your colleagues at Northern Star decide what's important and what we needed to focus on?

Dave Brule:

We all regularly have meeting, I guess. I'm sure every company does this. We did a SWOT analysis, a strengths, weaknesses, opportunities and threats. And that helps clarify your thinking and you go through the what is really critical. And you get top management there in a room and we talked about what are the critical obstacles facing the company and boiled it down to about four or five, maybe six different big obstacles. And we then determined what is measurable out of these, what are the critical areas we want to make sure that we get better at? And we chose safety, quality, delivery, costs, and costs and revenue growth are kind of together, we call them profitability, and employee morale, or people.

And out of that we said, well how do we communicate this to everybody? And that's where the A3 process comes in and Pascal was a great help in getting us to boil everything down to one piece of paper for each strategy.

Pascal Dennis:

Now I have to say, one of the things that most impressed me about Northern Star and the upper peninsula was the quality of the people. So when I think of the question, who are we, I remember something you told

**Lean Enterprise Institute Webinar
Strategy Deployment in Action:
One Executive's Perspective**

Originally presented: March 12, 2009

me, Dave. And I think we were having a drink in Romanoli's which is a great joint. If anybody is ever in Iron Mountain, please go. I remember saying, you know, Dave, this place is different. And you said, well yes, it's upper peninsula, we're Yoopers. Not much to go around so we learn to share. And I thought, these guys understand Lean.

In any event, in order to develop good A3s, good hypotheses, you need what some companies call pacemakers, others call it key thinkers or chief scientists or deployment leaders, what we call it in getting the right things done. Can you share with us how did you develop the pacemaker or the key thinkers' capability? How did you build their muscles so they could get to root cause, come up with counter measures, etc.?

Dave Brule:

Well I think the first thing you need to do is pick your top people and pick the folks who really dig into the Lean stuff, who really seem to understand it. It doesn't take long to figure that out. You work on some events and you go to reports out from Kaizen events. The folks who really truly embrace it and then they start to live it themselves, those folks are the ones that you want as key thinkers. And we elevated one of our fellows to an exec-- to a position of Vice President of Operational Excellence and he became our key deployment officer if you will. And he is one of our key thinkers. And it really has worked well. He was a guy who embraced this right from day one and has done a phenomenal job with it.

That being said, it requires buy-in from the very top. Everyone needs to be embracing whether it's five best principals, or it's standardized work, it's doing everything you can to eliminate waste.

Pascal Dennis:

That's a great point. And going back to that gear image, the gear at the top, if you will, needs to be moving in a supportive way and in a connected way. And then everybody feels good. They say, yes, we know what we're doing, and they put their heads down and really dig in.

Now the second step in strategy deployment is deploy the plan. And we show this is a series of bubbles, a great image that Dave Meyer came up with. Could you help us with that? How did you decide, once you had developed your mother A3, how did you decide what was important? And I know you're going to take us through this excellent paint Kaizen that you did. How did you decide that was important? How did it relate to your broader business goal?

Dave Brule:

Well, we had a quality A3 that really takes our -- typically our quality A3 will take the feedback from a customer. In this case, this was several years ago, 2003/2004, the voice of the customer was more like a scream.

Lean Enterprise Institute Webinar Strategy Deployment in Action: One Executive's Perspective

Originally presented: March 12, 2009

They wanted better paint. They were very clear about that. Our poor salesmen were out in the field getting beaten up because our competitor had a better paint. And paint for us -- we make snow plows that are out in the environment, they're getting scraped up, they're in a salty environment, particularly in the Midwest and East. And that creates all kinds of corrosion issues.

So we do -- there's an ASTM test for corrosion, it's called a salt scrape test. And we had -- our results were at about 800 hours, 800 to 900 hours. And our competitors came out and were marketing 1,500 to 1,600 hours. So we knew we had to do something. And we knew we had to do it right away. Our poor salesmen were promising our customers that we would have a solution to this. We also had problems with the edges peeling. This is a powder paint application problem and laser cutting problem. So we knew that we had to tackle that one. And these were head scratchers that we were playing around with, trying to solve for quite awhile. So we knew that we had to do something because our competitors had done something and now were using that against us. In fact, they even had an ad where they had a panel from our paint compared to a panel from their paint. And it really wasn't good for us.

Pascal Dennis:

I like, in this paper, how you defined the problem very clearly. So according to the salt scrape results, your current condition was 800 hours. Your target was 1,600 hours or above. And the easy "thing to do", jumping to countermeasures would have been, well, whatever our competitors are doing, we're going to copy at a cost of \$3 million plus I understand. How did you avoid and how did you restrain yourselves, because human nature is to jump the countermeasures? How did you coach your team to hit the pause button, think it through, get to the root cause, run experiments and so on? Can you take us through that?

Dave Brule:

Yes, that's actually the greatest value of this process, Pascal. The first look at this -- now granted, the one you guys are seeing is the final and this was final prior to moving forward with the project. The first A3 that we looked at was so far from this. In fact, it basically was a justification for spending \$3 million to \$4 million on revamping our paint system. And there wasn't much thought to it. And the simple question, and this is what was hard, hard as a leader to talk to these fellows who are putting their heart and soul into preparing this new form we had told them they have to use, and the simple question, well how do you measure whether or not this is going to be successful? And we, for example, we had a three stage wash, or we have a three stage wash, and we knew that our competitors went to a seven stage wash. Well our guys wanted to say, well we need to go to a nine stage wash. And I asked the question, well how do you know

**Lean Enterprise Institute Webinar
Strategy Deployment in Action:
One Executive's Perspective**

Originally presented: March 12, 2009

whether or not the steel is actually clean and how do you know that nine stages is sufficient? And we knew enough about wash systems that the water quality has an impact, the dwell time in the tank or in the wash booth has an impact, what kind of seal rinse you're using changes all of this. So we -- and what kind of detergent or ostetizing rinse you're using. So we knew that there was all kinds of variables. The thing is, we hadn't really dug into that stuff in detail yet. So asking these guys, well how do I know? And is there a test to say how clean the steel is? And seeking to find a measurable data output at the end was what drove this. And just so everyone is clear on this, this took about four months from the first one to the final one, at a time when we were desperate to have a solution. So this was painful, but I'm 100% convinced without that we would have gone down the wrong path.

Pascal Dennis:

I'm very impressed how the team worked through the scientific methods, the problem solving process, and got to the point of cause, and through a series of whys got to the direct cause and then to the root cause. And these photographs illustrate those causes very clearly. And then was able to run experiments to confirm the hypothesis. Could you give us a sense what kind of experiments did you run? How did you confirm for example that three, seven, nine stage washes wasn't necessarily better and that perhaps you had to look at other countermeasures? Could you help us through that?

Dave Brule:

Well one of the greatest resources that we all have is our suppliers. So we asked our suppliers, how do we measure the cleanliness of the steel for example? We knew that that was a critical application issue with powder paint. We also asked our suppliers, well are there better ways, how do we get this edge coverage? How do we prevent corrosion? And we had -- they came to us with lots of proposal ideas. Not just -- and this was -- it didn't cost us anything. They're in here all the time. So we started to tick off all these little issues. Now the team was a little frustrated because we kept asking, how do I measure this, how do we get the facts? By the end, they were so enthusiastic about solving this problem at a fraction of the cost.

And one other thing is, what we found is through this process we tend to find that our guys were looking for numbers that they kind of pulled out of thin air when it came down to it We knew that our customer had 1,500 or 1,600 salt spray hours. Our guys came back and said, well we need to have 2,000 salt spray hours. And that's when I asked, well why 2,000? Where did that number come from? And the answer I got was what we call the UP salute which is kind of shrug of the shoulders, geez, I don't know. And so I said, well what is the real answer here? And this is where

Lean Enterprise Institute Webinar Strategy Deployment in Action: One Executive's Perspective

Originally presented: March 12, 2009

we talk about language is the currency of management. And we don't want to -- I don't want to overstate that, I can't overstate that enough I guess. It's really critical how you describe what you're trying to accomplish. In this case, I said, guys, if you -- if our goal is 2,000 hours, or 2,000 salt spray hours, and we get to 1,700, did you fail? And they kind of looked at me and said, well I don't know. I said, well what did the competitor do? The competitor needed better -- with 1,500 to 1,600 hours, if we get 1,700, is that better? Is our customer happy? Well, yes. I said, so then we didn't really fail. So what we really need to do is we need more than 1,600. And as subtle as that sounds, 2,000 versus more than 1,600, it's really critical because the guys need to realize what it is they're trying to strive for. And ultimately just to cut to the chase on that one, we ended up getting so many salt spray hours, closer to 4,000 or 5,000, that it actually delaminated the test panel and we had to abandon the test. But they did a fabulous job.

Pascal Dennis: The paint is still on there. Now a sensei that I respect very much asked me this question many years ago and it stayed with me. It's one thing to do what you just described. It's another thing to motivate your team to want to do it. Could you help us through that? How did you motivate the team members to continue to dig deeper and do more experiments and not give up and have that kind of spirit you just described? How did you motivate them?

Dave Brule: I think if you act as a coach, this gets back to the command and control stuff that you talked about earlier., it's like coaching any team. They want to win. And these guys desperately wanted to solve this problem. And we had some really, really bring engineers that were working on this stuff, between Mike and John, and they did a fabulous job of analyzing the problem. And the closer we got to solving the problem, and finding out that we could spend a fraction of what our competitors spent, these guys started getting excited. And you could see the momentum building.

Now early on it was pretty painful, because the easy solution was to spend the \$3 million and get it done. But I don't think we would have gotten the same result. In fact I know all we would have done is the same as our competitor. So they were very, very easy to motivate and I think that fundamentally people are motivated to do good work, and if you respect what the output is, they're great. And we just kept asking questions and making sure that they credit and they get recognized for it. And they were enthusiastic as heck to do it.

Pascal Dennis: I think it highlights the importance of strong human resources, and the key point there is human, resources activities. We have to hire good people,

**Lean Enterprise Institute Webinar
Strategy Deployment in Action:
One Executive's Perspective**

Originally presented: March 12, 2009

we have to motivate them, we have to keep them safe, we have to develop them, and so on. And that's really the heart of a Lean system.

Now the third step in strategy deployment is monitor the plan. And again, I've shown this series of gears whereby we check and adjust our objectives and tactics at each level of the organization. I wonder, Dave, if you could give us some insight as to how your company check and adjust process evolved at every level, from the senior management check to the department check, to the shop floor check, the teamwork. How did they evolve over the past five or six years?

Dave Brule: Well the easy check and adjust for us was down at the floor level. We create work cells and each work cell has a daily rate, a takt time they need to meet. And that's all the plant physics that most of the listeners probably are aware of. And so we tried -- we have an hourly output and a production analysis board that they report out on. That check and adjust is relatively straightforward. Now it took some time to get good feedback from the folks when things weren't going as planned. But that was good standard work for our supervisors to go around and make sure that they're doing an hourly check and seeing what the problems are and making sure that we're getting to those daily problem solving routines.

At the higher level, it's a bit more of a challenge. You've got larger objectives, more complicated things, take longer time, and what we've developed is a series of control panels for each department and --

Pascal Dennis: Dashboards, I think some people know them --

Dave Brule: Yes, some people call them dashboards, yes. And we put -- we try to put all of the critical process measures as well as the end of the pipe measures on those, and to show where are we in the process, how are we doing. And we -- at the highest level we meet once a month and at certain levels it's one a week and on the plant floor they're looking at it every day and every hour.

Pascal Dennis: Now can you give us some insight into how the executive's role changes? How did your day to day, weekly, and monthly standardized work change with respect to developing the plan, deploying the plan, checking whether we're on track, assessing problem solving. Can you give us some insight as to how your role changed?

Dave Brule: There is an adjustment and I think everybody needs to be aware of that, that when you're implementing a lot of these types of production systems, you need to change your daily standardized work. And you do need to do

Lean Enterprise Institute Webinar Strategy Deployment in Action: One Executive's Perspective

Originally presented: March 12, 2009

a follow up. You have to have regular cadence of checking on what you talked about. We have to review, for example, the A3 that you're looking at regarding the paint, we reviewed regularly to see the progress. And I think we were on a weekly or monthly -- it's been a few years now. I know it was at least monthly and probably was weekly with some of the team members to make sure that everything was coming through with the results that we expected.

And a good example is that salt spray test. It took 5,000 hours. That took several months to complete, so we were always checking what's going on. But it takes a discipline to answer your question, Pascal, it takes discipline from the executive members to do that regular follow up. And it's most likely going to be a change to a normal routine.

Pascal Dennis: Now you mentioned the information flow in your control panels or dashboards. Could you give us an image of before and after what did your information systems look like before and what have they evolved into to support your checking and your overall strategy deployment activities?

Dave Brule: Well before it always seemed like it was almost a game to see if you could find out the information that you were looking for. We have a very talented IT staff that does a great job and they've made life easier. At first it was a lot of Excel spreadsheets and trying to grind through and make charts and graphs and suck data out of a database that would be, that would work properly. And since then, we've gotten much better at it. It's gotten more familiar and more comfortable. We still use a lot of Excel to make these dashboards and it's pretty simple updating for most of them. Simply adding a new data item that comes out of our database. The IT folks are constantly looking for ways to streamline that. And actually it's our people that are constantly looking to streamline it, using the IT folks as resources

Pascal Dennis: I was very much impressed with your, not just your IT team, but your support groups in general. And it seemed that they were pulled into the Gemba, if you will, so IT would be there with engineering or manufacturing, figuring out how do we make this problem visible quicker. And that's the proper role for support groups like IT and HR and production control. And it's one of the benefits I've seen of strategy deployment, it pulls them into the heart of the business where they belong

Now the fourth step in strategy deployment is improving the system. And in this image here, I've tried to show how improvement and routine work, are a portion in a management structure. So as one rises in the company, one should be doing more and more improvement work. And by

**Lean Enterprise Institute Webinar
Strategy Deployment in Action:
One Executive's Perspective**

Originally presented: March 12, 2009

definition, strategy deployment is about improvement. Of course we have to meet the numbers, that's routine work. But we've also got to strengthen our system so that we can improve the numbers.

Now at the bottom of the graph at the bottom left, the line Kaizen, we might call quick and easy Kaizen, or perhaps a point Kaizen. As we rise through the system we might do a flow Kaizen. In other words, three or four point Kaizens connected to achieve a breakthrough in a value stream. And then the broadest is system Kaizen where the executive team looks at our people system, our material systems, our machine systems, and identifies obstacles and tries to improve them.

I wonder, could you help us, over the past six or seven years, what sort of Kaizen has strategy deployment triggered?

Dave Brule:

Strategy deployment has interestingly with us, it has really caused us to look at our cadence of doing rapid improvement events, or Kaizen events. It absolutely now drives all of our events. We try to plan them a good year in advance for most of it, for most of the major things. We schedule them a couple of months. And we -- that has all come out of the strategic planning, using the A3 process. And that gives us much more of a deliberate focus as to what are we doing, when are we going to do it, what are the big challenges or the big boulders in the stream so to speak, and how are we going to attack those?

Otherwise you run the risk of having lots of Kaizen activity going on and it's not really attacking the big, major hurdles that you're trying to accomplish. And that has been the biggest impact of this on us.

Pascal Dennis:

Gotcha. Now you mentioned earlier that your team, understandably, found it frustrating when you kept asking questions and didn't give them the easy answers. And as you said, the point was to develop their muscles so that they could do this on their own so that you'd have a benevolent cycle going. Can you describe some of the stories if you will around that development process as you improved the systems? What sort of capabilities did you need to develop in your people and what sort of things happened?

Dave Brule:

Well I think following that process of the Socratic method that we talked about, asking the questions where they start to learn to solve the problem. Now interestingly enough, we may think we know the answer, but I'll tell you, half the time, I think I know where to go to get the answer, but they need to learn how to find it, especially when you get into some technical problems.

**Lean Enterprise Institute Webinar
Strategy Deployment in Action:
One Executive's Perspective**

Originally presented: March 12, 2009

The fact is, we can't -- I can't possibly tell everybody what they need to do all the time. They need to be able to solve those problems. Flexing those muscles. A big part of what we've done is lots of training. Obviously Pascal has been to our place many times over the past six years doing training on whether it's from, anything from problem solving to visual management, to policy deployment. That has been a big step and it's an investment in those people to say we value you enough that we're going to send you to this type of training or we're going to bring somebody in here and we're going to take you out of your daily routine of work and we're going to ask you to learn as much as you can about this. And that, in a way, is an honor for them to be given that type of training. And then there's an expectation, that hey, I'd really like you to use this.

Pascal Dennis: That's very good. Now the last question is a tough one but I'm sure it's one that our listeners are interested in . You described a team that has kept its edge, kept sharpening the blade, if you will. How do you and your team keep your edge? How do you stay hungry, if you will, to continue to want to do better? You've had breakthrough results. Human nature says, well let's just coast. How do you avoid that?

Dave Brule: Well, the alligators are right behind you all the time, aren't they? You can go sit and talk to Dwight Romanoli over a glass of wine, but the fact is, our competitor is probably out there trying to take our market. That's the way it works. Any good team wants to win, right? And these guys, we like folks who are competitive. We've got a lot of folks here who are very independent, they love to be hands on. They're not afraid to roll up their sleeves and get their hands dirty. They love to win. And this is a good example, the A3 that I'm sharing with everyone here, is a great example of a huge victory. And there's nothing that -- the only thing better than winning is winning again. And once you get that going, people just want to continue to win. And whether it's winning new business, it's solving problems in the plant, it becomes contagious. And we want to have success and success does breed more success, there's no doubt in my mind about that.

Pascal Dennis: That's great. Well, it's been my privilege to work with Northern Star and Dave and the team and I've been inspired by the Yooper spirit. And if I could just make a closing comment on strategy deployment, as Dave said earlier, command and control seems to work in the sense that you get people aligned very quickly. Through fear or coercion, what have you. But does it work in the long term and is it really effective at getting to root cause? Dave described a freewheeling culture where people are trying stuff and experimenting and are motivated to get better and then they're

**Lean Enterprise Institute Webinar
Strategy Deployment in Action:
One Executive's Perspective**

Originally presented: March 12, 2009

locking in what they learned with visual management and standardized work and then they're going for more. So in these hard times, our challenge as leaders is not to default to command and control. Recognizing what I said earlier, but to try to build muscles of people through the kinds of activities and thinking Dave described so that when we come out of these bad times, we're stronger. There's an old saying in psychology, who you are on a bad day is who you are. So I hope that leaders listening to us will not default to something less than they can be. And what we do now in these hard times will determine who we are in five years. Now having had my time on the soapbox, perhaps Chet, we can hear from our Lean community.

Chet Marchwinski: Thanks very much, Pascal and Dave. Before we answer questions, we'd like to say things for attending by giving everyone listening 15% off of Pascal's popular book, *Getting the Right Things Done - A Leader's Guide to Planning and Execution*. Just go to the store tab at LEI's website, lean.org, in the product catalog add the book to your shopping cart, type in the code word STRATEGY in the discount code box, and 15% will be deducted automatically. This offer is good until March 26th.

By the way, when you close your webinar session, a brief survey will appear on your screen. Please take a few moments to give us your feedback. Now let's take some questions from the Lean community. There's been a few along this line about how did you deal in the beginning, Dave, with the naysayers, the cynics, the doubters? You addressed it a little bit, but there's been several questions, people want to know more. If you can offer any tips or insight as to how you dealt with that type of behavior.

Dave Brule: Thanks, Chet. Mostly what we did is educate everybody. We started with the very top management including the ownership and the ownership is my family. And everybody bought in right from the beginning that this is where we needed to head as a company. And the few naysayers that we had were kind of waiting to see how this would work, and it took some time to get some results. When we had some favorable results out of Kaizen events and doing the A3s and getting everybody to realize that the A3 process actually brings clarity and makes their job a little bit easier, we found out a vast majority of people started to buy in with very little resistance.

Chet Marchwinski: Okay. Did you do anything specifically to develop problem solving skills?

Dave Brule: Yes, we did specific problem solving training. We had Pascal do a

**Lean Enterprise Institute Webinar
Strategy Deployment in Action:
One Executive's Perspective**

Originally presented: March 12, 2009

problem solving training, he also did policy deployment, or strategy deployment training which is the A3 process. And encompassed with that is all of the other Lean training, whether it's visual management and 5S, and we incorporated a lot of safety training. We made a big investment. People on the plant floor we're offering about 40 hours of training per year now to everybody on the plant floor and some management are actually getting more.

Chet Marchwinski: So that's pretty substantial as you continue.

Dave Brule: No question it's an investment.

Chet Marchwinski: Pascal, maybe you can help some people in the audience who had a very basic question. They're wondering what the Socratic questioning process is.

Pascal Dennis: Socratic questioning entails questions like this. How do you know? On what assumption is your understanding based? What if that assumption wasn't true? What would the opposite arguments sound like? What experiments might you run to confirm your hypothesis? So it's intended to bring the person to self realization and done right, there's no end to it really. And there are resources on the net, so if you type in Socratic question you can identify probably 15 or 20 key and common questions. And I encourage readers and especially leaders to do that because when you ask a question, a door opens and people will walk through that door and they'll get stronger. Their muscles will build as opposed to telling somebody what to do and that closes doors.

Chet Marchwinski: So this is a key step in retraining yourself to move away from the command and control type of approach and giving solutions. You're in fact teaching.

Pascal Dennis: Yes, and I don't want to be misunderstood. We don't apply Socratic questioning just because we want to be nice people and we don't want to be thought of as being tough. On the contrary. Socratic questioning, the thinking way that Dave describes is much tougher than command and control. It really pushed people and raises the intensity in the workplace. And it's more effective. It's good business to build the muscles of your people. But to do that, you've got to do certain things. You've got to respect them. You've got to invest in development as Dave described. And you've got to trust them to do experiments, to possibly fail and pick themselves up and keep going. And that's an entirely different way of managing, but it's much more effective.

**Lean Enterprise Institute Webinar
Strategy Deployment in Action:
One Executive's Perspective**

Originally presented: March 12, 2009

- Chet Marchwinski: Pascal, let me stay with you for a second and then go to see what Dave's answer to this is. How would you see value stream mapping interacting with strategy deployment?
- Pascal Dennis: Well value stream mapping and strategy deployment are complementary. At the most basic level the value stream map helps you understand your mess as I call it in *Getting the Right Things Done*. Where does the shoe pinch? A deeper level of connection is, if your value stream mapping activities are informed by strategy deployment, you can identify the two or three Kaizen bursts that are most important. Too often, value stream mapping activities peter out because the future state requires 20 Kaizens. Well which ones are we going to focus on? That's where strategy deployment is so important.
- Chet Marchwinski: Dave, is that how it worked at your facility, your company?
- Dave Brule: Very much so. In fact, the future state in a value stream really ought to be driven by the A3 strategy that you develop. And I noticed a few questions where people were asking, what is an A3? Where does it come from? The A3 is, just to be real clear, is merely a size of a sheet of paper, it's an 11 x 17 sheet of paper. It has no other meaning than the size of the paper that I'm aware of, but we've now adopted it as a definition of this to define this strategy deployment. It's a form very similar to the one that we shared that shows very deliberate form of putting, describing a problem, whether it's a strategy or a very finite problem like we showed with the paint.
- But we use value stream maps on the back of an A3 often. They'll be printed on the back. And it clarifies -- they have to be in concert and there's a lot of synergy between them. They drive each other. They show where the problems are and then they also should be striving for a future state which is driven by your strategy A3.
- Chet Marchwinski: Okay. Let me stay with you for a second because this is a related question How do you know it's time to increase the goals on your A3? Do you just do annual increases of X%?
- Dave Brule: We take that -- the goals on the A3 are driven, some may seem arbitrary by the ownership or senior management, but for example, quality goals are very clear. Those are voice of the customer that's coming from customer feedback surveys, desires, competitive issues. Safety, we're always looking to get better. Zero accidents is the ultimate goal. Very seldom do we see a factory that has zero. And costs, we're always looking for it to get better. And that's the catchball process. We -- of course as senior management, we want to drive that as far down as possible. And what we

Lean Enterprise Institute Webinar Strategy Deployment in Action: One Executive's Perspective

Originally presented: March 12, 2009

use, we use the A3 to set a goal, stretch goals. And part of the reason for setting a stretch goal is to get people to think outside of their normal way of working. So if the goal is really difficult, a real challenge, say let's reduce costs by 5%, it may seem so impossible to them at first glance that they actually have to rethink the way they're doing things. They have to actually step out of the normal routine to think about how do we accomplish that.

So some of them may seem a bit arbitrary, but there is always a catchball process where they have the opportunity, the team members have the opportunity to say I can do that, this is how much I think I can contribute as far as a cost reduction, or this is what we can do to add to the profitability strategy, our on-time delivery strategy.

Chet Marchwinski: Okay. Pascal, maybe you can address this one about what is the -- can you write an A3 report for a project that's outside your authority or outside your zone? Is that acceptable?

Pascal Dennis: Yes. An A3 is an expression of a scientific method and this isn't so much of a formal org, structures, and authorities, it's about cross functional teams fluidly coming together, attacking major business problems. So the vertical chains of authority are not as important as the horizontal links between people because that's where value is created. So by definition, strategy deployment work, like any value stream improvement work, is lateral. It's horizontal. So you may be the leader or the key thinker for a critical value stream or a critical need like quality as Dave described. But you don't have formal authority in that zone. It's entirely reasonable. And that's how an organization responds flexibly. That's an expression of muscles and of nervous systems reacting very, very quickly to emerging threats and needs.

Chet Marchwinski: Okay. Dave, there were a couple of questions along these lines about how did you and senior managers show commitment? Did the executives follow up and how did they follow up? Did they visit the shop floor to talk to people to see how projects were going, to examine A3s?

Dave Brule: We are very -- all of the senior management, we're a very thin management company. We don't have a whole lot of upper management, fairly lean in that sense I guess. Our senior management is on the shop floor at least once a week. Several of the -- there are several VP level folks of which we have six total, six officers in the company that most of which are on the floor at least once a week if not almost every day. And there's constant interaction. They have to be able to see what's happening and interacting with the employees. So at the minimum it's weekly. And

**Lean Enterprise Institute Webinar
Strategy Deployment in Action:
One Executive's Perspective**

Originally presented: March 12, 2009

also everybody in the company is required to participate in Kaizen events, preferably in an area other than theirs, at least one. And they all do. And everybody now believes that this is the key way for us to get better as a company. Our results are there, so it's not hard to convince people anymore.

Chet Marchwinski: Okay, and maybe Pascal, here's a question that perhaps you can address. Is the A3 document a static document or do you go back and revise it and refine it? And if you do refine it, how do you do that?

Pascal Dennis: That's a common question and it's one of the many rabbit holes people fall into. The point of the A3 is to express the hypothesis. Once you've written it, it's done. You don't have to go back and worry about it and tweak it and rewrite it. It's not about the piece of paper, it's about the thinking that it generates. So inevitably, you will adjust your hypotheses. Let's say you're trying to reduce injuries to zero. You will adjust your hypothesis. You don't have to go back to the plan phase and rewrite your plan. You're in to deploy and to check and to adjust. So it's not about paper, it's about the thinking, the questioning approach, the relentless pursuit of root cause and the experiments to lock in countermeasures. Don't worry too much about the paper. Once it's done, it's done.

Chet Marchwinski: And Dave, maybe this will kind of dovetail with your situation. There was a couple of questions where people are asking about, related to what Pascal just said, when you solved the paint problem for instance, did you consider it solved or did you use the -- did the A3 remain active and you continued to improve it? And did you ever deviate from the initial hypothesis on that A3?

Dave Brule: That A3 was specific to a very narrow problem. And once that project was complete, that A3 is put into the book of knowledge. We have process measures that are monitoring the paint system and so it is continuously being monitored. As far as the reviewing A3s and updating them, we typically there's a heavy, heavy process to develop them initially and that takes several weeks. Once that's complete, we'll typically review them. They're done for a one year cycle and there may be stuff that actually extends beyond a year cycle, but we'll review it at six months and see if there is some, if there are some changes that we want to make to it.

For example, each A3, and for us it's safety, quality, delivery, cost or profitability, and the people, each one of those is revised every year. And we have one for each operating business that we've got here. So there's two of each one of them. I hope that answers the question.

**Lean Enterprise Institute Webinar
Strategy Deployment in Action:
One Executive's Perspective**

Originally presented: March 12, 2009

- Chet Marchwinski: That was good. And there's also been a couple of questions, people are asking for examples of A3s, blank A3s, besides what we saw here today. And also if there are success stories about people using A3s in addition to what we heard today. But I would suggest taking a look at your book or our website. There's some blank A3s there and Pascal, the book is essentially a success story of a company learning how to do this process, right?
- Pascal Dennis: Indeed. And there are seven or eight A3s at least in the book, so that's a good source. And John Shook's book, *Managing to Learn*, also is a great resource, and the LEI website. So many different resources.
- Chet Marchwinski: Dave, there's someone was asking if you're using the A3 to extend Lean to the non production areas. Are there people outside production who are doing the process?
- Dave Brule: Absolutely. Everybody in our company participates in some way in an A3. They may not be developing one, but they are certainly using it to set the direction of what they're working on in their department. Every department has improvement goals, so and that's where they are getting those goals and objectives from.
- Chet Marchwinski: Okay. Well unfortunately we're out of time. Thanks for sharing your experiences, Pascal and Dave. And thanks to everyone who is listening. In a few days, we'll send all of you a link to an archive of the webinar, the slides, the audio, and the text, so you can refer to it or share it with colleagues. We'll also review and summarize the questions. There's a lot of great ones we couldn't get to, and we'll post the answers at Lean.org and let you know when they're up. And while you're there, don't forget to explore the free resources such as success stories, articles, forums, and book excerpts, including the one for Pascal's book. There are templates, free templates you can download for A3s there. So thanks again to everyone, and on behalf of Dave Brule, Pascal Dennis, and everyone here at LEI, we wish you continued success in making the Lean leap.