Building the Architecture
Shingo Prize Keynote
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Thank you for asking me to speak with you today.

Terex has not had a conventional lean journey. I am not sure there is such a journey, but I am really pleased to be here, and believe that our story offers insight into how a mid-sized manufacturer with a colorful history has managed to "stay the course" -- continuing along a lean path, despite some stops and starts along the way.
And how we continue to build an architecture of lean thinking into our culture.

First, some background:

Terex was originally a division of General Motors. The company was sold for a few hundred dollars in the mid 80's. Over the years, we grew in fits and starts, eventually "rising from the ashes" of troubled assets to where we are today: A company with visions of grandeur, on a lean journey with lots of challenges, but dedicated to continually improve.

We will do about $8 billion of revenue this year and consensus estimates have us making about $1.75 per share.

Terex was built by acquisition.

We were a “maverick”; we grew from nothing, so we had nothing to lose. Since the mid-1980s, we have acquired more than 60 businesses in machinery related categories. Today, we make lifting, earthmoving and material handling equipment.

We were a holding company for many years. We focused on making acquisitions and staying solvent. To put it in stark perspective: On my first day on the job at Terex in 1992, my boss (and 50% shareholder) said: “I’ve got some good news and some bad news. The good news is you’re here. The bad news is if you don’t raise $20 million in the next six weeks, we’re going bankrupt!”

There I was, coming off of 10 years at P&G and 8 years at Tenneco -- I had no idea what a financial crisis was all about, and here was the “grim reaper” knocking at the door!

I was reminded of what my mother used to say: “Nothing’s too good for you, and nothing’s what you’re going to get!” Unless, of course, <u>you</u> make it happen.

Terex was clearly focused on survival. “Lean” was not a concept. “Staying alive” was. So began three years of daily cash calls, which were less about whom we *could* pay and more about who we could *put off* paying.

In 1995, we refinanced the company. I was named CEO and the Chairman retired.
It was time for a new strategy: "ABC" -- Anything but Caterpillar.

We got into non-Cat product lines. We had nothing to lose. We simply had to out-earn the cost of capital by earning 20% in our business because we had a 13% interest rate on our loans. We would buy troubled businesses and implement a 100-day plan.
We were a "poor private equity company in public company clothes."

And we were brutal! We managed extremely tightly -- our head office -- which looked like a converted parking garage -- was run by a handful of people. We cut out entire sales organizations. No one wanted to work for us, but we didn't focus on this. People were an expense not an asset. We were cash poor; it was whatever we needed to do to pinch pennies and drive shareholder value.

And stay solvent.

And, low and behold, over the next few years we started to be successful! We had no overhead, so we passed on savings directly to our customers. We steadily grew market share. We were selling to businesses where value was key.

Before we knew it, the market started throwing big bucks at us to buy other businesses. Our heads were spinning! But we had a new problem: We were a $2B business having grown from a $300 MM business in 1996. We had an excellent 100-day plan, but no plan for day 101!! We were a holding company, but we had outgrown our structure.
We needed processes, planning, HR, and a view of the future.

We needed a plan.

And as you know "Planning is always best if it starts in advance of the execution!

Something had to change.

Then in 2001, "Boom!" a significant recession: And this caused the Genie aerial work platform business to appear on our M&A radar screen. A good business, with solid products and a strong customer proposition. It had made bad financial decisions and was running out of cash. So we bought the business for a great price.

Our acquisition model had been:
1) fire everyone at the top "day 1" and
2) find a low-level person to run the place, doing exactly what we told them.

But this time, things were different, and I decided to keep things "as is." The Toyota Production System was "culturally alive" at Genie and it was working. I said to my team: "We can learn from this and build on it for the future." So rather than shooting first, we began listening and observing. We worked together to fix their problems.

The Genie acquisition was a fundamental turning point… I realized we had to move from being a serial acquirer and holding company to a true operating company with a process for -- and a commitment to -- systematic growth and operational excellence.

The first step in building a lean architecture: management alignment. In our team, everyone believed in only themselves – consequently we had no team. We had terrific individual performers, rugged individualists – I'm sure some wore "T" shirts with a big red letter "S" on the chest. But as you know there is no "I" in TEAM.

When I first suggested we have an "offsite" meeting to discuss our future, and I suggested the Greenbriar in West Virginia as the location, most of our guys thought I was having an out-of-body experience. I was "cheap." The Greenbriar was extravagant. Then I asked everyone to pre-read *"Good to Great"* by Jim Collins and be prepared to discuss such issues as:

- How do we treat people like assets, that aren't disposable?
- How do we treat the aftermarket for service requirements as an opportunity versus an afterthought?
- How do we build our brand? And what do we want it to stand for?
- How can we be more customer-oriented versus a labyrinth of disconnected operations?

And many other questions.

I asked our team to walk away from what had made us successful to build a better tomorrow. To build an operating company. I knew several of our leaders would not make this journey. My Board questioned this dramatic change. I believed in my heart that this was the best path forward.

We charged ahead.

You have to lead the company you are in… not the one that others define for you or that you came from. BUT you have to have a vision. It took us most of 2003 to figure this out. Some of our leaders changed positions or left. Lean manufacturing, and a 101-day-plus plan was fundamental to our future.

I gathered the top 150 leaders in a January 2004 meeting. And we set the broader, longer-term goals. Our “Purpose, Mission and Vision” -- our guiding principles -- started to take root at this meeting. We began to create linkage between achieving long-term growth and embracing a commitment to developing a lean architecture. We were on a roll, and a series of annual “themes” started to develop:

- “Doing More in ’04!”
- “Customer Drive in ’05!”
- “6 Billion in ’06”
- “Ron’s in Heaven in ’07.”

Well, that last one wasn’t really a theme, except in my own mind!

But the point is, we were thinking more strategically about our business while applying lean practices we learned from the Genie acquisition.

We started to reap rewards.

I said in 2004: “We may be a $10/share value today, but we can be at $100/share company tomorrow,” everyone -- except my CFO, whom I had just hired and who <u>had</u> to be supportive -- thought I was crazy! In the next few years, we surpassed that prediction rather nicely --rising to $100/share, splitting, and then rising back up to $95/share!! In essence we went from a $10 stock to $190 stock.

How did we move beyond themes and catch phrases to actual results? In the early stages of this "reinvention," we were a conglomeration of small companies, like Schaeff and Fuchs in Germany, and larger companies like Genie and Demag.

While we making inroads in our lean journey, we were simultaneously working to align our businesses.

It was a time of multiple priorities.

We cross-fertilized our other businesses with Genie "lean" principles. We transferred some people out of Genie. We held structured improvement activities at manufacturing locations: One-week "Terex Improvement Processes" or "TIP" events" -- modeled after the Toyota Kaizen events. These events taught the importance of making small improvements bit by bit, being constant and relentless and resulting in a drastically different operating system. We held the first TIP event in Redmond, Washington -- home of Genie. The second in Coventry, England. The third in Germany.

We were beginning to reshape the company… forming the beginnings of a new culture.

All the while, we built our own version of a lean business model, branding it: "The Terex Business System," and naming a former Genie lean practitioner to direct our initial efforts. We formalized a "three-legged stool" vision of mutual commitment to -- and dependence on -- customers, team members and shareholders.

In 2007, we introduced our values: “The Terex Way” -- rooted in continuous improvement, respect, integrity, servant leadership, citizenship and the courage to do the right thing in all our business dealings.

The result?

Buoyed by a strong economy, our increasing profits were dovetailing nicely with our refined processes, and it seemed like, for Terex, the sky was the limit…until the financial crisis of late 2008 whacked us in the head, cutting the company in half with a 50% drop in sales in 2009! I think you’ll agree, no lean practitioner can handle a 50% reduction without a major challenge!

Next question: “How do we reinvent a company that’s been cut in half?” Many of our global industries were down 80%! At that moment, you can’t. If the tide sweeps you out, you get momentarily disoriented. We didn’t abandon our lean journey… the global crisis took precedence. First, we had to patch our leaks.

But, we remained committed to our principles. We continued to develop a central repository of organizational knowledge and lean thinking at a pace that the organization could handle and accept. It’s tough to be a great place to work, when the market threatens the <u>very place</u> you work. Survival and viability always take precedence in a storm.

We regained our equilibrium.

And, as I stand before you today, I'm happy to say we rode those waves and made it to shore. We dried ourselves off, re-established our focus and begin the journey again -- operationally and as a lean manufacturer. We re-evaluated our strategy. Sold some businesses, made tough choices. We sold our most profitable business in 2010 – further exposing our short-term problems. But we were working on longer term opportunities.

Now here we are today. Our leadership is a team and we are aligned, optimistic and on the right path to recovery. We see 2012, 13 and 14 as years of rebuilding and recalibrating.

So, what have we learned?

- "Lean is for operating." When markets wane, and you have to adjust your course, dust yourself off and continue.

- Another lesson: Entrepreneurs almost always hit a wall. But you can still be lean and be willing to change.

I've been CEO this long because I am committed to the long haul and I'm willing to destroy what I built yesterday, regroup and begin again toward the greater good. That's what we did after the Genie acquisition and after the recent financial crisis.

- Leaders look forward.

- And…leaders understand the importance of commitment!

- …Leaders understand the importance of an …English Breakfast.

What do I mean?

If you think about a typical English -- or even American -- breakfast of bacon and eggs, the chicken is involved, but the pig is committed. We have been -- and intend to remain -- committed to our lean journey, because we know it works. The right lean architecture requires commitment!

In summary…

We share many of the fundamental principles that Shingo stands for.

This has stood us in good stead and will continue to guide our lean journey. Among these principles are:

- Assuring a safe environment… all of our team members know this is our first priority. We've had huge success, with more progress to make. We never start a meeting or report financial results without covering our safety process and our safety statistics first. Even when we report financial performance to our Board.

- Committing to continuous improvement…this is fundamental in the Terex Way.

- Creating Alignment… in 2011, I restructured our leadership team from strict segment and functional allegiance to mutual dependency and accountability. Our reward system is team based.

- Focusing on the long term…our leadership team and our team members are beginning to believe that the Terex Business System and lean thinking is a competitive advantage for Terex.

- Working toward standardization...starting with inventory management, we are working with our manufacturing teams to build consistent lean processes into our global production facilities.

Our journey is still in its early stages, but we have come a long way from the daily cash calls, thanks in large part to our willingness to recognize the power that exists in the human spirit, when committed to continuous improvement.

Thank you.