



Transcript for the WLEI Podcast:

## Diving Deep to Discover the Value of Lean Companies with Cliff Ransom

April 26, 2021

Featuring Host Tom Ehrenfeld and Cliff Ransom

*Lean done right can dramatically boost the value of any enterprise over the long term, argues Cliff Ransom. For decades Cliff has been analyzing the value of companies by researching and above all visiting them to suss out the integrity of their lean practice. His detailed reports (by his firm Ransom Research) on the performance of companies such as Danaher, GE, Fortive, and many others are closely followed by a passionate slice of the investment world. The following conversation drills down into the lessons learned from looking at public companies through lean-colored glasses.*

Tom Ehrenfeld:

Welcome to the LEI Podcast, and it is my great honor to have Cliff Ransom as our guest today. Cliff is one of the few lean investment gurus who has decades of experience identifying extremely well-run companies based on their adherence to lean principles. Former chairman of the Shingo Institute, and many other accolades which we can describe. Cliff, welcome aboard. How are you?

Cliff Ransom:

Thank you so much, Tom. Always happy to be working with LEI.

Tom:

I've always been fascinated with your work, which I consider a great reminder for all of us in the lean world that there's absolute applications of this that have material impact on the performance of companies. Can you please give a brief definition of lean as you see it, and explain the correlation of lean to the performance of publicly held companies?

Cliff:

What makes lean work is that it is a system. It is a mindset, it is a process. It is not a tool bag. It is not anything anywhere near that simple. It begins with fundamental principles that are true across the world in every field, and those principles help shape and define behaviors that lead to results which are important to investors. The behaviors are what creates confidence, both amongst the actors involved in the lean process and in their owners, and shareholders, and suppliers, and customers, that that organization will be able to uphold standards that everybody cares about. Quality, delivery, service, et cetera. So I need to go to the gemba. I need to go to where the real work is done and make sure that it's not just something that, God bless the chairman, may give at a conference for some big investment firm.

I need to see that it is widespread, and I need to see that its benefits are accruing to the corporation and its constituencies.

Tom:

Over your many years of doing this you've been to countless gemba and you tend to report on companies that you observe are doing it well. You have your exemplary companies, your so-called Super-Achievers and Next-Generation-Danahers. Tell us what you make of that.

Cliff:

Well, they're both terrible phrases, but as Jim Womack says about the word lean, it's a terrible word to describe this process but it's the only one we've got. I named my Super-Achievers when I started my firm, which is an independent equity research firm.

Tom:

And throughout these visits, you have these lean-colored lenses through which you're viewing what you observe. So you're implicitly comparing it to some pre-existing principles that you believe they should be following?

Cliff:

Well, I know what very good looks like. I know what very good looks like because I've probably read every book on the subject, I've been active in AME and Shingo and half a dozen other organizations, and I've had the unusual benefit of having had Danaher take me under its wing 30 years ago as they were starting their lean journey. I will argue that Danaher is the best lean culture on the planet after Toyota. The difference is that Toyota's in a terrible business, automobiles; and Danaher has been able to shift and morph and transition into what it is now a life sciences, health sciences, technology kind of business.

Now let me quickly say something here. I don't care where a company is on its journey. I've called these companies Super-Achievers because I believe that they are truly ingrained. But if they fell backward, or if they even stopped advancing, stopped improving, stopped progressing, I'd knock them back down to Next-Generation-Danahers in a heartbeat. The Super-Achievers started out to be Danaher, Illinois Tool Works, United Technologies, now merged with Raytheon, and GE. I flunked on GE but I will also tell you that in 2003 I didn't want to buy GE. But they had an appetite for risk identification, risk remediation that struck me as a process that was extraordinarily valid. ITW's not a lean company. ITW is an 80-20 company. The rigor with which they apply that process is just as strong as lean companies.

Over time I added companies. Actually, the fifth I added was Roper Technologies, which at the time was not lean but it had an extraordinarily disciplined process, cash flow return on investment, that gave it the characteristics of what I call my CRIISSP acronym. We can get into that later. I subsequently added Honeywell, which is a traditionally lean company. I added a couple of the Danaher spinoffs and I added Parker Hannifin and Crane because they were doing a terrific job. Now, the Next-Generation-Danahers are not a farm team. They're companies who are on a genuine lean journey, well-defined, well trackable. Sometimes I follow these companies for 10 years before they make it to super achiever. That kind of irritates a few of the CEOs but I just say, "You've got to prove it to me, you've got to prove it to me." Unlike many on Wall Street, I have a very long-term perspective.

I'm still thinking in terms of three to five years. I don't really give a damn about next quarter. Frankly, if it's a super achiever and I'm right, and they for some reason put out a quarter that's misunderstood by Wall Street and the stock goes down, I will be asking my clients to buy more of it. I will tell them, "We've

been waiting for a dip. This is it. You told me to call you. I'm calling you." There are about 50 companies on my next generation Danaher list. I've thrown a few off and I've been a little more patient with some than I should. I've had a couple like... I'll just say it, Xylem, that really flunked on its lean journey twice materially before getting it, my technical term, to "get it," on the third rebound. And they've been proving to me since Patrick Decker got there, the CEO, that that's a sustainable thing.

Tom:

So you go do your deep dives and you're assessing how well these companies are following some very deep principles...while a very important principle you talk about is to buy cultures, not stocks. What are the tangible practices of companies with a healthy, lean culture? What do they do? How do they think? What are you looking for?

Cliff:

Well, it all starts with the Shingo principles, which they're all purloined from Toyota. We've all been stealing from Toyota and one another for 40 years now. The first lean investigations went to Japan in the early '80s. We didn't even call it lean until the late '80s with the publication of Jim and Dan's book. Well, I'm sorry. The output of the transportation study group at MIT, to be fair. So you got to go to Japan, you got to go to companies who have invoked these policies. They're things like, to me, number one is respect for the individual. If you're not treating your employees and your customers as individual human beings, you're never going to be lean.

Tom:

What does that mean operationally? I mean, let's drill down on that, because that's well and good and inarguable in some ways. But what does that mean? What does it look like?

Cliff:

Well, I may digress a half second here and maybe this will help illuminate the subject. I tell clients who say, "I want to learn about lean. We want to pay you to come in and teach us about lean." I say, "I can't do that." I said, "First of all, I sell fish, not fishing lessons. I don't know how to price how to teach you about lean. Anyway, it's not my skillset. It's not really what I want to do. I'm not a consultant." What I do say is, "If you will travel with me I will show you lean because until you've experienced it, you'll never freaking understand it. It just won't happen."

And then I'll say, "If you're really brave, I give a week or two of my time a year to one or two companies and I go work on a Kaizen activity." Could be on a factory floor, it could be working with people building an equipment configurator, it could be any number of things. And I say, "Until you get your body greasy and hot and climb up inside of a 150-ton Minster press, you'll never understand what one-piece flow means." And so we have to get people to think about that because continuous improvement, that second principle that guides me, I think those first two lead to all the rest. I mean, it can be as fundamental as "do you bark orders all day long or do you ask questions and train people to become problem solvers?"

The job is to create a community of self-motivated, self-actuating, self-policing, self-regulating problem solvers, and independent. Sometimes you have to stand back and say, "Well, they're going to fail with that." But you just have to let them do it. If Toyota is correct in its admonition that we learn more from our mistakes, our flaws, our failures, than our successes. Let me tell you, Tom, on my way to becoming the smartest man in the world.

Tom:

But I think the hazard of that, to say that first two principles are respect for people and continuous improvement, you have to mention the very tangible, prescribed methods of operationalizing that, of, say, producing in-flow, products that are pulled by customer demand using principles, say, of Jidoka, which is you stop at every defect, and using Kanban to regulate the flow of goods within the system. I'm just saying that are there minimal, known techniques that you also look for when assessing how well companies are practicing lean and how valuable their engagement in these activities are?

Cliff:

Let me take in a factory as an example. I've got a very silly little thing. Clients say, "What do I do when I walk onto a factory floor?" "Well," I say, "look up. Three things: look up, look down, and look around."

Look up at the lights. This applies in an office too. The lights and the condition of the ceiling will tell you more about what those people think about the people that work for them than anything else in there. It will tell you more about their dedication to high quality than anything else in there. You can argue when you see cutting fluid or hydraulic fluid on the floor. You know perfectly well that machine's not being well maintained. And, if it's not being well maintained, it's not going to hold specs. If it's not going to hold specs it's only a question of time before you hope somebody pulls the Andon Cord and stops production. Then you look down. You look at the floor. I sort of got ahead of myself. You look at the floor. Is it clean? Is it shadow boxed? Is the stuff that it's shadow boxed for in the shadow boxes? And then the third thing is you look around. You have to be able to see the flow and the velocity. You have to see that there's one piece between every space of production.

I've been in so many plants, it drives me crazy. I'll leave the names, for my clients. For example, there are a lot of people who make tractors. I'm not picking on any one person, or heavy machinery. There'll be a gear that's three feet across and it has to go through a variety of different cutting functions. And there'll be 10 or 12 gears between these gigantic monuments. I'll say, "Why do you do that? Have you considered doing something different?" And it doesn't take a long time. Now, sometimes you have to be really polite. I grew up in a command and control environment. People told me what to do and I told people what to do. And for the last 15 years I've been trying to just ask questions. And this is very hard. It requires a fundamental restructuring of how you go through life. It's something you have to just remind yourself over and over and over again.

So, if I see Kanban cards, if I see small supermarkets, if I see one-piece flow. I was in a plant in China, a power tool company, again it'll go nameless. There's a bunch of them. They wanted me to look at their factory from up on a balcony. I said, "Nah. I'll tell you what, you guys can stay up here if you want." I just ran down the stairs and walked out on the floor. By the time they caught up to me, I was standing in a cell, making a tool, and I said, "You do know this cell's going to stop in 47 seconds, right?" And they said, "What do you mean?" And I said, "Because you've got no work balance on this place. I've already figured out the..." not the takt time. They didn't even know what takt time meant, "production time per tool and there's only enough parts in that bin that you sent him at the beginning of the line, and it's just going to all stop."

I said, "Now some of these guys are going to be working for half an hour because they got so much intermediate work in process." In China they're so smart they have the women be the supervisors. Much wiser than having the men be. This woman is running down the aisle holding a tray of that initial component to feed the line before it stops. And I turned to the plant manager and I said, "You really don't think this is lean, do you?" And he said, "No." And I said, "Well, then let's do something about it. What are you going to do the rest of the afternoon? You got a crowbar? Let's go fix it." If they think

you've got a problem. I'm not really suggesting we fix it but I'm trying to see how they feel about that, because that'll tell me more about how the supervisor thinks about it.

Tom:

I guess my question has to do with whether you can try some of these more abstract aspiration, respect for people, continuous improvement, and so forth, with a mandatory compliance, wrong word, but to some established operational principles working in-

Cliff:

Tom, you're being too formulaic because every situation is different. I will look to see what are they measuring? If they're measuring equipment efficiency, I'm going to be suspicious right there if it's OEE because that's usually the biggest contributor to the number one waste, excess inventory. If they don't start every meeting, every annual report, every daily management walk, every piece of standard work with safety, I know they're never going to be a super achiever. If you don't have a safe environment, you'll never get my number two requirement, which is employee engagement.

I learnt this at Caterpillar when they finally got serious about lean, maybe 20 years ago. They'd been messing with it for a long time. And I said, "Well, why are you doing safety?" They said, "Because if somebody thinks he's going to go home and say to his spouse, 'Well, old Fred lost his other hand today because the light shield didn't work and it whacked his hand off,' they're not going to be productive." Bob Chapman runs a huge private company, he says, "We're going to treat these people like they're family. We're going to treat them just like their kin." And when you do that, then you can think about flow and velocity, you can think about cost, you can think about quality, you can think about delivery. But all those other things... I say to CEOs all the time, "You're measuring the wrong stuff."

Tom:

Okay. Well, let me ask you, let's talk about Danaher. Danaher is a company you have admired for decades. What have they done so well in a lean sense, both in an abstract way and practically, that has earned your respect?

Cliff:

They've produced lean operations for almost 30 years now. They've done it across every business they've ever touched and they do it in a non-negotiable way. If you're running a plant in Tajikistan, you're going to probably run it with lean principles modestly different than if you're running a plant in Erie, Pennsylvania. But everybody knows that basic rules are absolutely the same. I used to tease them in the '90s because they all ran around with Franklin Planners under their arms, they all ate sushi, they all spoke in Japanese. And I said, "You're like a damn cult." Well, you know what? Cults can get a lot of stuff done. And I've watched people grow at Danaher but they grew with purpose. I'll tell you a story here. George Sherman was brought in by the Rales brothers, the two very bright brothers, always treated as financial guys but frankly they were the... Steve Rales was going to Japan in the early '80s way before all my dear friends.

I've been looking for 30 years for lean companies and I have 10 Super-Achievers. My universe, just in my industrial universe, is probably 2,000 names. And in my tight universe, what I call my MIRU, the monitored industrial research unit, there's probably 200 names. And of that we've got 50 Next-Generation-Danahers and 10 Super-Achievers. So it's a little bit like blood clots for the Johnson & Johnson vaccine. It's a pretty low percentage.

Tom:

Speaking of Danaher. I mean, they have performed consistently spectacularly on an annual basis over three decades. Correct?

Cliff:

Correct. It's getting very complicated because they've had these spinoffs which have all done very well. All I know is that... I did this calculation once. The returns have been in the thousands of percent. I don't have the number in my head. But, if you started off with \$100 of Danaher stock, you're going to have a lot of money in Danaher, in Fortive, in Vontier, and... you know?

Rales started off with a \$1 million loan from the Maryland National Bank, and frankly not a lot of equity, and they're both worth a couple of billion dollars each 30 years later. 40 years, to be fair.

Tom:

Right.

Cliff:

That's okay with me. The point I was going to make, this business of purpose. George Sherman was the first outside CEO. Steve Rales was the first CEO when it was just a hodgepodge, a collection of companies that they pulled together, cats and dogs, they all generated cash because these guys understand free cash flow. That's a mantra. And they hired George Sherman from Black+Decker, where I'd known him for at least a couple of years because he ran all the power tool side of that. And he went to Danaher and... I got to tell you another quick story first. He went to Danaher and I call him up and I said, "George, what's all this Japanese you're mouthing off to Wall Street? Nobody knows what you're talking about. I lived in Japan. I don't even understand most of these words. And didn't you tell me never try to... what's the proper word for bull\*\*\*\*? Bullcrap? Bull-pucky? Didn't you tell me that you should never bull-pucky a bull-puckier?"

And he said, "Cliff, come with me to Bloomfield, Connecticut next week and I'll show you." And there's a long story there, but that's where I went on the floor of a UAW plant in 1990, Rust Belt, Connecticut, a disastrous recession, and saw lean working for the first time. I spent about three hours in that plant and when I left, I said, "I've just seen the future." I was a little early but I had seen the future. George had been there maybe a year, maybe less, he called me up and he said, "I got to tell somebody this. It's not material, non-public information, but I've just hired a guy I think will be my successor." I said, "Whoa, whoa, whoa. Wait a minute. What are you talking about, your successor? You've been there for a year." He said, "Oh, no. I mean in 10 years."

He said, "I just hired this guy, Larry Culp." And 10 years later Larry was the CEO of Danaher. Larry retired from Danaher, did a bunch of really interesting things. He's now transforming General Electric as the chairman and CEO. I'm telling you right now what he did at Danaher, if he's successful at GE, it's going to pale in comparison. Danaher is so far ahead, GE will never overtake them. That's not the point. But if you look at where Danaher was after a year or two or three or five, or even ten, I think the next... Well, he's been there now for two years. So I'll say three, four, five, ten years of Culp, it'll be the most profound lean transformation in the history of the lean movement outside of Toyota in the early '50s.

Tom:

What's interesting is the extent to which Larry Culp talks about lean within the company, talks about lean as a mindset. You produced a newsletter that annotated a letter that Culp shared with his

employees. And even at a company level they are producing a lot of company written stories, sharing very tangible stories of lean practice around the country. I think that GE's a hard company to talk about because people have a lot of bias about it. I think it's global company and I think only two states matter, current state and future state. And that's it all about where it is right now and what Culp seems to be doing. I have not been to a GE factory.

Cliff:

The point about GE is that because there's such a dearth of knowledge about lean principles and lean thinking and lean culture, and those are my words. Not lean calculation in the next quarter. I mean, I use lean techniques to produce reports. That's standardized work for how do you write, publish, distribute. We've got standardized work for everything. Well, that's anathema on Wall Street because they think it's an art form and we know it's not. I'm going crazy because I see what he's doing and I'm very encouraged. I know when he arrived there, I said the very earliest we're going to see any advantage to this, the typical length of time between, call it the introduction of lean and where we begin to see it, we as outsiders begin to see it, is in inventory. Jim Womack says inventory is an indicator that does not lie.

Inventory is also cash. Shingijutsu calls it sleeping cash. And so many companies don't get that. The point there is that had we not hit COVID, which destroyed half their healthcare business and boosted the other half, destroyed their... I don't mean to say destroyed, put serious dings in their very best businesses, healthcare and aviation. And that's coming back. All of that's coming back. I'm not worried about that. But when it come backs, because he's been in place now for two years. May 20th, 2019, I believe was his first president's Kaizen in the power division in... South Carolina? North Carolina? Sorry, I get the two confused all the time.

He took 120 of the senior people at GE. I mean, these people ran billion dollars businesses themselves. They were gods, they walked on water. He went in and he said, "We've got four big problems in this plant and you're going to learn this week how to solve them." It's like same thing with me and Bloomfield, Connecticut, a Jake Brake, the scales fall from your eyes and you never look at the world the same again. And if you don't have that phenomenon occur, you're not very long... Some of the people who were at GE who had storied careers, one division, got to be famous for what Larry wound up calling fake lean. And that guy's not there anymore. And there are people running the business, and in that case it was somebody he brought in from outside GE, brought him in from Embraer, who's now running that business. That's the non-negotiability of this thing.

Tom:

What I'm hearing from you is that Culp has been making a very serious effort to transform a company that's been in a very dire-

Cliff:

Well, I would argue that he's already made more progress than I would've expected, absent the COVID influences. He's brought in people from the outside, he's advanced people from the inside. Culp has done so many nice things for me. But my admiration of him has nothing to do with that, it has to do with what he did and what he produced and how he thought and the kinds of people that he created. Everybody at Danaher today has worked with him or up until the time he left. I'm seeing what he's doing at GE.

Remember at GE, there was a huge cadre of people that understood lean thinking. There are people there who were working with Shingijutsu in the semiconductor freaking plant for 30 years. They never got support. People complain about Jack but we have to put managers in their time, in their historical

timeframe. Yeah, Jack was ruthless, fired the bottom 10%. But Jack also said, "If you're not going to be number one or two, get out." Jack also said, "You will go to the aftermarket, you will learn how to operate there, you will learn how to sell spare parts and repairs and upgrades." When Jeff Immelt came in, he got dealt an impossible deck of cards. That was practically hours after he took over the job when an airplane that they owned their engines flew into a building that they insured.

Jack and Jeff never made lean the number one priority. Jack, he was transfixed with Six Sigma, which he learned about from Motorola and Allied Signal. And I would say to him, he was very generous with me too, I'd say, "Jack, you're missing the point. This is one of 50 tools in the lean quiver and it's frankly one of the most complicated tools because some people don't get scared off by the math."

Tom:

Let me shift gears a little bit. I mean, I think that again I'm taking a formulaic approach of trying to quantify what lean looks like. Let me ask you about your acronym of CRIISSP. You say that quality lean companies perform according to this acronym. Can you define it?

Cliff:

Absolutely, Tom. It's perfectly appropriate for you to reuse my word formulaic, because I've got an acronym for one. CRIISSP, I spell it C-R-I-I-S-S-P. For every letter in that word you get about another half or full multiple point on your valuation. I'm going to back up a second. Remember how do investors make money in a stock? Well, they say, "Well, the price goes up. The earnings go up." I say, "Well, yeah. But the earnings are only one of the drivers." And that is usually reflected in the price-earnings ratio, the PE ratio. It's really the inverse of the discount rate that you apply to it because discounted cash flow is the measure of value, to me.

So then a company demonstrates that it can be C, consistent. If over a very long period of time the average market multiple is 15 times. They start there, at 15. They're not below 15. If they do it long enough, people will say, "Oh. Well, that's repeatable." R. Then I get a little interesting. I say, "Okay, I can read that in the financial reports." But then I want to go look at the first I, which is improvable. Can everything they do be improved every hour, every minute of every day? Is that the expectation? Not better next quarter. Every hour of every day. The second I had to make up, is integratable. Can you spread this thinking across, not just all of your business, but all of your value chain? If you're not lean from the beginning of your supply chain to the end of your aftermarket or service business, you ain't lean. It's just that simple.

The second I, integratable. And then I say, "Is it scalable? Can you integrate it across everything everywhere in the world and do it again and again and again?" The second S is really the most important letter in the equation because that means you can sustain it. 30 years ago I made up a statistic. This is a wonderful story. I made up a statistic that 97% of companies failed at lean and only 3% got it right.

To me, the biggest sin in a lean transformation is failing at it. I say, "Don't even start it. You will confuse your employees, you'll confuse your suppliers, you will definitely confuse your customers, you'll confuse the regulators, you'll confuse the people in the houses outside the plant." So sustainability is very important. I'm an investor. I want to buy something and hold it forever. I don't want to buy it because it's a steel mill and it has a good year every eight years. You can make money that way but I'm not nimble enough. And then the last word is really not one that the company does, but it's one that Wall Street comes to believe. I say Wall Street doesn't know much about lean but they'll say, "Oh. Well, that's predictable." P. So if it's consistent, repeatable, improvable, integratable, scalable, sustainable, and predictable, that's when you go from 15 times earnings to 20 times earnings. And in this market it means you go from 20 times earnings to 25 times your earnings.



Tom:

And those are elements that are supported by operational lean practice?

Cliff:

Yeah. I want to make sure we understand that when you say operational there's a risk in the... Well, I'll say in the Wall Street community, but also in the business community. They think lean is a factory floor tool. It's not. It's a way of life. It's a reordering of your DNA. It's like CRISPR for your genetic makeup.

And if it's not showing up in Carpetland, the back office, accounting, finance? One of my favorite questions is to ask a CFO, "If I were to ask you to define the difference between lean accounting and accounting for lean, how many of the people in your department could answer that?" And it's only about half of the CFOs that know what the hell I'm talking. It's a trick question.

Tom:

Cliff, you would never be so mischievous as to ask a trick question.

Cliff:

Thank you, Tom.

Tom:

Our listeners can't see the air quotes I'm... winks I'm giving you.

Cliff:

Or my eyes rolling. After you do a couple of thousand interviews, it's just not hard to figure out who you don't need to talk to for very long. If I get the right guy or gal, I won't leave. And if I really get the right guy or gal, they won't let me leave because they'll say things. It's the ultimate compliment to me, "You ask the kinds of questions that we ask ourselves late on Friday afternoon." When I go to visit a company, I have to be able to talk about stuff that Wall Street doesn't talk about. One, because I don't care and, two, because I just think it doesn't have much relevance. I don't need to know somebody's bloody tax rate. I'm going to adjust for a normalized tax rate anyway. If it's an Irish company, I'm going to know what they did. It's not a big deal. It means they saved cash. I like that, I like that. I've always said I love financial engineering as long as it's within the grounds of the legislation.

Tom:

And you're also touching upon a lean notion, take care of the process and the outcomes will take care of themselves.

Cliff:

Absolutely, absolutely.

Tom:

I just want to circle back to the kind of magic of you're going and doing deep dives. Tell me about a visit pre-COVID, you don't need to name names, but what's the kind of last gemba you observed that really got you excited? What did you see? What have you seen that said, "Wow, this company gets it. Look how well they're reducing injuries," whatever. I'm just curious.

Cliff:

Well, I don't want to say the last ones but I'll give you some examples. This is probably years ago. Regal Beloit bought a bunch of motor lines, electric motor lines, from GE. One year later the CEO had an analyst meeting in New York and he brought seven of his management leaders with him. They ran his seven biggest businesses. Four of them were from Regal Beloit and three were from GE. So he not only bought product lines and installed bases, he bought talent. What was more important to me was that two of the Regal Beloit people running Regal Beloit businesses had come from GE, and two of the GE guys went to run Regal Beloit businesses. So he'd cross-fertilized in that year. And I said, "This is really, really impressive." That's the kind of thing you see... I wouldn't expect it of any company, but when you see it you have to recognize it.

I spent three days with a very bright, in those days, young manager named Aaron Ravenscroft when he was at Gardner Denver. We went to one of his plants and I got into one cell and I ask a lot of nasty questions. He had said, "Ask anything you want." He knew me very well, said, "Ask anything you want." Two days later I called up. I mean, I was saying things like, "Why do you have this big piece of metal welded onto the side of this cutting machine?" "Oh, it's to keep the shavings from going all over the factory, or it's to splash the hydraulic fluid back here." I said, "Well, it's not working very well, is it? The floor's grimy and it's covered with metal." So I called him up a couple of days later and I said, "How did your guys in that plant respond to my questions?" I said, "I was trying to be polite but sometimes it's hard for me to be polite."

He said, "Oh, they hated you." I said, "Oh, God. I'm really sorry. I didn't mean to do that." He said, "Oh, no. You don't understand. They hated you because they said to themselves, 'Why didn't we ask ourselves those questions? Why did we have to have some guy in a suit from Wall Street come in here and see these obvious things that we should've gotten?'" Well, that told me something about that plant, didn't it? That I couldn't have found any other way because they were actually very intolerant of what they were doing. They were very early on in a lean transformation. Now, that fella is today, 10 years later, running a multi-billion dollar company, Manitowoc Crane. He's still only about 40-something years old. I'm going to go back out to Manitowoc with him in two weeks. It'll be my first on site visit in... whatever that is, 14 months.

I've been in that facility probably seven or eight times over the last 40 years, back to when John Grove owned it, when the brothers owned it, somebody else, then Manitowoc owned it. Now it's a new management team. I'm going to see things there that are going to be very, very different. I've been in the plant, three of those seven times, in the last five years and I bet I'm not going to recognize a damn thing there. If I do recognize it, I'm going to be asking Aaron, "Why the hell haven't you changed it?"

Tom:

So let me, as a kind of closing question, we can go one of two ways. I want to ask you for your kind of pithy explanation of why lean creates company value. Or maybe we can combine that question with, again, tell me a handful... remind me of what companies are doing lean really well today, that we should be keeping an eye on.

Cliff:

Well, I think all of my Super-Achievers fit that. I'll answer that in reverse. All my Super-Achievers fit that mold. Now I told you I made a mistake on GE. Well, I'm not making a mistake on GE now. Danaher, United Technologies, ITW, Honeywell, Roper, Parker Hannifin, Crane, Fortive, Vontier. There's a whole bunch of them, Next-Generation-Danahers, who are doing wonderful stuff. I just got to get back in their plants to confirm, back in their offices, back in their labs, back in their accounts receivable department,

go talk to the human resources people, go talk to the bartender in the bar across the street, talk to the priest in the parish. What do they tell you? I mean, I think there's a lot of those.

I think Wabtec is a very good company in that score. It's been flat for about four, five years. And if I'm right, it's going to be really interesting. What was Regal Beloit but now did a big name change and is now called Ingersoll Rand, and is doing one of the fastest transformations I've ever seen. I want to make sure it's as deep and wide as I think. The company that they did that asset swap with... actually it was Reverse Morris Trust, but who cares? Ingersoll Rand is now called Trane. Mike Lamach has been my prototype CEO for 10 years.

Tom:

And your assertion is that these companies-

Cliff:

Let me answer your first part of that question.

Tom:

Go ahead.

Cliff:

The answer is they do well in the stock market. They're not on the Super-Achievers, with the exception of GE and Crane, which is not well understood, have been great investments. Look, I'm in a business that gets measured. I'd say I have a three to five year horizon but everybody else in my industry, it's measured every day at 4:02 when the market closes. Well, now it's 4:00:00.1 because the computers are faster than they were when I came in. I'm not sure that's the right measurement. You're going to run over but you're going to cut stuff too.

There's this whole ESG, environmental, sustainability, governance thing, the whole sustainability issue, circular economy, circular business models, are very important. Well, I'm picking up new clients because they're coming to me because they understand that S, that second S in my CRIISSP acronym, because they're in business to do sustainability and they're doing it because... not because they're goody-goody, but because companies that act responsibly and sustainably invariably do better. Invariably do better. Can I tell them that I think sustainability is nice but it's only one part of lean and they should think lean, not sustainability? It's an interesting conversation.

Tom:

Okay. Cliff, that seems like a perfect place to stop actually. That's fantastic. Thank you.