

GA 018 | Lean Product Process Development with Jim Morgan

Ron Pereira: You're listening to episode 18 with Jim Morgan.

[background music]

Announcer: Welcome to the Gemba Academy podcast. The show that's focused on helping individuals and computers achieve breakthrough results using the same continuous improvement principles leveraged by companies such as Toyota, Del Monte, and the US Department of Defense and now, here's your host, Ron Pereira.

Ron: Hey there, this is Ron Pereira from Gemba Academy. I'd like to welcome you to another episode of the Gemba Academy podcast. As always, thank you so much for listening to this podcast and for watching out Lean and Six Sigma training videos over at gembaacademy.com.

Today's guest is Jim Morgan. Now, Jim is the President of EMC Network, a research and consulting firm specializing in engineering management in both product and process development. Jim's also a senior advisor at the Lean Enterprise Institute. As you'll hear during the show, Jim has an amazing background including having held senior leadership positions at Ford, where he worked directly with CEO Alan Mulally.

Now, during the show, Jim and I talk all about lean product development. Well, specifically we talk about what lean product development is and how it's so very different from the more traditional product development approach many companies take.

As you'll hear during the show, Jim is also the conference chair for the upcoming Lean Product and Process Development Exchange, which is being held September 23rd through 24th, 2014 in Raleigh-Durham, North Carolina. Now to learn more about this conference, simple go to gembapodcast.com/conference and use the promo code "Gemba" in order to receive \$100 discount.

Now I will say that this conference looks really good. Folks like Jim Womack are going to speak and additionally the chief engineer of the new Ford Mustang will also speak, which is incredibly cool, if you ask me.

So, again, go to gembapodcast.com/conference to learn more and use promo code "Gemba" to save \$100. Full disclosure, Gemba Academy isn't being compensated at all for this recommendation. We're just really excited about the work Jim and his team are doing.

The show notes for this episode, including links to everything we talk about can be found over at gembapodcast.com/18 which is 1-8. So again, gembapodcast.com/18. Enough from me, let's to the show.

[music]

Ron: All right, Jim, well thank you so much for coming onto this show. So where you calling from today?

Jim Morgan: It's my pleasure to be here. I really appreciate this opportunity. I'm up in Traverse City, Michigan today.

Ron: Nice. Well, right before we came online, we were kidding about all these Michigan guys taking over the lean world and everybody who's followed me for a while knows that I'm a big Ohio State guy. We just won't go into college football or anything like that, I guess. [laughs]

Jim: We'll call a truce.

Ron: There you go. All right, Jim, why don't you go ahead and start things off by giving a little bit of a history on your background and maybe how did you first come to learn about lean thinking?

Jim: Sure, I recently retired from Ford just last year. I'm currently working with the Lean Enterprise Institute who has major initiative in lean product and process development. I'm also working a bit with LPPDE, the Lean Product Process Product Development Exchange, helping them with their conference.

Before this, as I mentioned, I worked at Ford as the Global Director for Body, Safety, and Stamping engineering. Prior to that, I worked at a major tier one global automotive supplier called, "TDM." Of course, you mentioned the University of Michigan connection already.

Ron: Tell us a little bit about Ford was where you were at the longest, I'm assuming, am I right?

Jim: It was a mix. I spent the last 10 years at Ford. The first two, as the director of their global product development system and then the last eight, as I mentioned, as the global director for body, safety, and stamping.

Ron: You were able to work with some of the top leadership of Ford, am I correct in that assumption?

Jim: Yeah, I was really fortunate to work for some great leaders including Alan Mulally, who was just phenomenal leader. I had an opportunity to learn a lot from him and several other people along the way at Ford. They're just incredibly talented organization.

Ron: You've written a book. Tell us a little bit about your book, Jim.

Jim: The book is called, "The Toyota Product Development System: Integrating People, Process, and Technology." It's a book I co-authored with Jeff Liker, based on the research I did at the University of Michigan, when I was working on my engineering PhD.

Ron: Nice. You mentioned earlier, you made mentioned to some conferences that you're involved with. Talk a little bit more about that and maybe some details, and some specifics. It's the middle of July, when we're recording this. It will be somewhat dated, but go ahead and talk about what you got going on for the next year or so.

Jim: Yeah, a couple of things. One, I mentioned a work that I'm currently doing with Lean Enterprise Institute.

One of the things that we're doing, I think, that's really interesting is we have a group of partner companies from a number of different industries that are working together to improve their product development systems. Both based on the things that I've learned and others have learned in research and in practice but also in working together on a number of projects so that we're learning together.

At the same time we're improving their systems, we're also advancing the state of lean product development knowledge. It's really exciting. The other thing is there is a conference in September at Raleigh-Durham, September 23rd and 24th. It's called the Lean Product Process Development Exchange which is just that. It's a where a number of practitioner companies from almost every industry you can think of comes together to share their insights and experiences in product development and improving their product development systems.

We also have a great lineup of keynotes like Jim Womack and Jeff Liker. We have vice presidents from Goodyear and from General Electric. We also have the chief engineer for the Mustang Program, as a plenary, a group. The Mustang is particularly interesting this year, of course, because it's the 50th anniversary. It's just an incredible car. Dave Pericak, who's the chief engineer and a good friend of mine, just has some great stories and experiences about how chief engineers work to deliver value to the customer.

Ron: Very cool. We're going to have links to everything, your book, all the conferences that you've been talking about over at the show notes which can be found at gembapodcast.com/18.

All right, well Jim, what we like to do to kick off all of our episodes is have our guest share a quotation. It could be leadership, lean, produce development; it can be anything that inspires you. What quotation inspires you, Jim?

Jim: There's a couple. If I can share two?

Ron: Yeah.

Jim: The first one has to do with organizations and individuals and their relationships with each other for high levels of performance and continuous improvement. It comes, it's an old chord from Kipling.

"The strength of the wolf is in the pack and the strength of the pack is in the wolf." I think that's really a profound way of looking at that relationship and how each can strengthen the other. Then, a personal quote is from Epictetus, who was a stoic philosopher and that is, "No man is free who is not master of himself."

Ron: What does that mean to you that last one?

Jim: That means not getting caught up in things, not getting on the hook as Epictetus talks about all the time. Whether it's fads in management or whether it's other things that take away from your personal freedom like substance abuse and things like that.

Ron: All right, very good. As I mentioned in the intro, we're going to spend a lot of time talking about lean product development here in this episode. It's the theme.

You have an interesting background, Jim, with lean product development as an executive but also, as a researcher in the field. Why don't you just share a little bit about your experiences both as an executive and researcher?

Jim: Happy to. I talked a little bit about it in the beginning but I worked in the industry for about 10 or 12 years before deciding to the University of Michigan to get my PhD. I ran into just a hotbed of lean zealots.

L. Ward was there, Jeff Liker, John Shook, and by extension, Jim Womack. It was a real epiphany for me, because of my discussions with them; I decided to do my dissertation on product development at Toyota.

I did about a two and a half year comparative study of Toyota product development with a number of their competitors. I found, not only that they were far better, far more successful with regard to lead time, cost, quality, transaction prices, almost every element of product development, but that their system was profoundly

different than what their competitors were using and what we had seen quite honestly anywhere else in industry.

We sort of organized what we saw into a socio-technical model and identified what we thought were key attributes that made their system so powerful. That socio-technical model is really what provided that basis for the Toyota Product Development System book that I later wrote with Jeff.

After I finished the book, instead of staying in academics or doing consulting, I actually went to work at Ford, where I had this incredible opportunity to work with just some phenomenal people in their product-driven revitalization. If you recall at that time, sort of seven or eight years ago, Ford was in a really bad place. Allen joined the company, probably about a year and a half after I got there, maybe a year after I got there. He really focused the entire organization on creating products that our customers would want and would pay for. In order to that, we had to completely reinvent the development system.

We had to change our organizations and of course, we had to completely reinvent the entire product portfolio. That was just a powerful experience for me. As much as I learned my time at researching Toyota, I learned so much more trying to implement what's exactly right. I learned from my colleagues at Ford as well. It was a great experience. As I mentioned, I retired last year and now have an equally unique experience to work with guys like Jim Womack and John Shook at the Lean Enterprise Institute. Also, this group of partner companies that we're working with to sort of take all these to the next level.

Ron: You wrote the book then you kind of add some experiences there at Ford. If you had to go back and change anything in the book, would you?

Jim: It's funny, I've been ask that question a couple of times. I think it's a great question. I think there are probably two things that I think would improve the book.

One is there's not nearly enough focus on product. It's a product development book that doesn't talk enough about product, believe it or not. It focuses on the system and how to deliver great products. But the role of product in bringing the entire

enterprise together the drive for product excellence, I think that could be clearer in the book. Then of course, because I hadn't really been experienced in implementing it, there wasn't enough in the book on how to go do this.

It's an observation. We try to describe as accurately as we could what we saw and what the differences were some of the specific practices. We hadn't gone out and actually sort of worked on transforming an organization before we wrote the book. I think that's another thing that would strengthen it.

Ron: Very good. Let's take one step back here. At a high level, kind of an elevator speech level, what is Lean Product Process Development? How is it different from traditional or other types of product development models out there?

Jim: Like any lean system, it starts with deeply understanding the customer, understanding the environment and the unique value that your product can actually deliver. Until you understand what the product really needs to be and how it delivers value. There's no point in going any further. It really stresses this idea of immersing yourself in the environment.

There are great stories about the Sienna minivan chief engineer who spent a year driving around North America. There are lots of stories about Dave Pericak in the Mustang Community. It's way more than just sort of asking your customer, that's certainly part of it. But having this deep understanding and design is about context. Understanding that context, experimenting using a set-based approach where you look at multiple design solution alternatives as opposed to rating on a single one. The chief engineer concept paper that allows you to communicate this vision with the rest of the organization and get aligned around what it needs to be and who's going to do what in order to deliver it, that's crucial upfront.

Once you understand that, it's about creating flow. Sound familiar to you for Lean and precession and speed getting to market. There are a number of different techniques and tools and methodologies that you can use like compatibility before completion to minimize rework, synchronizing activities across function so you can really do concur in engineering in a powerful way.

A system of standards that allows you to not reinvent things that I need to program. I really focus on learning a knowledge creation, longer term, how to use design reviews, how to attest failure in order to learn. I mean it's just so many things that really make up this portion. But more important than anything else and I think what really differentiates lean product and process development is this focus on people. It's a people-centric system. It's focused on developing people and product simultaneously in different ways to do that.

It's all about creating a sustainable system for developing great people and great products so that you can have profitable value streams as outward used to say. It's a system that continues to build on itself because it is focused on developing people. I think that's missing from a lot of other approaches to product development.

Ron: Being a Michigan man, I'm assuming that you're aware of a gentleman named Richard Sheridan and he's at Menlo Innovation there in Ann Arbor. Are you familiar with those guys?

Jim: Absolutely. Rich is actually a really good friend of mine. We've had a lot of interactions and we're very aligned as you probably can tell.

Ron: Yeah. I mean we just got done visiting them. We're actually editing the footage. Just how you were talking about adding contacts to your products and understanding the end user and just a way that they go about it with their high tech anthropologist, I mean it's incredible, right?

I mean, I think that's exactly what you're talking about here. It's really understanding what the customer wants and needs and drawing pictures and cartoons and whatever needs to do. You need to do to make that happen. But so many people like this in a tradition sense maybe don't do that, right?

Jim: That's exactly right. Whether you use high-tech anthropologists or the cheap engineer, you really need to have this vision for what the product needs to be. It makes all the difference in the world if you're creating this for somebody, as opposed to just creating it. That's the big difference.

Ron: You've talked about some benefits of this. Maybe expand on that a little bit more? Aside from Ford, are there any other companies out there that had success with this type of an approach?

Jim: We talked about that deeper understanding that you achieved with this, which is really powerful to create better, more successful products, clearly improved quality, no matter how you measure it, lower cost, and more manufacturable products, certainly, because of the collaboration that is just fundamental to this approach, faster lead times and, actually, on time delivery is something that a lot of product developers struggle with.

It's also a way to bring the entire organization together. Product development isn't an engineering thing. It's an enterprise thing, where you need to bring engineering, industrial design, marketing, and manufacturing finance purchasing altogether. The product of that company is the one thing that they all have in common. It's really a powerful lever to bring the organization and to do serious work around creating a lean enterprise.

Ron: I'm sure it's not all roses with lean product development. What are some of the challenges when you try to implement this type of program?

Jim: Clearly, achieving high levels of collaboration can be tough in some organizations. Some organizations have been walled off for so long it can be difficult to break down those barriers.

I know at Ford, the combination of being in a bit of a crisis, quite honestly, for the company and having leadership like Alan's, John Fleming's, and others' allowed us to break down those barriers. If you don't have that kind of leadership commitment, it can be very challenging to implement something like this.

Also, getting access to actionable knowledge. There's a lot of information out there, there's a lot of different consultants out there, who may or may not be very knowledgeable about theory, but don't have a lot of hands-on experience. Also, companies tend to hold their product development information really close to the vest. It can be difficult to get information to get started on this journey. Those are two key challenges that people have when they start to go down this path.

Ron: Like you said, product development is an area that a lot of companies are going to hold very close to their vest, for obvious reasons. It's their livelihood, if you will.

Let's say that there's an executive or a leader, right now, listening to this episode who we could define as traditional in their product development approach. What can they do to learn more about lean product and process development? What can they do to go about implementing it in their organization?

Jim: Just as a starting point, there are some good books, "The Toyota Product Development System" that I mentioned before. I guess I have a little bit of a bias there.

There's also the "Lean Product and Process Development" book that LEI's published. It's based on work by Al Ward and Durward Sobek. Then, Taka Fujimoto, who's a Professor at the University of Tokyo, has also done some great work in high-performance product development.

To get beyond books, things like the learning partnership that we've set up at the Lean Enterprise Institute is really a powerful hands-on way to learn and expand the scope of your learning group by working with these other companies. Then, of course, the Lean Product and Process Development Exchange Conference that's in September, where are companies from pharmaceutical software, hardware medical devices, appliance, automotive are all coming together to share their experiences.

Ron: It sounds wonderful. Obviously, you don't have to be in manufacturing to practice this type of thinking. [jokingly] Look at Menlo, they don't make widgets.

Jim: That's exactly right, Ron. The principles are the same. They do cross boundaries and they're very powerful. Figuring out exactly how to adapt them to your particular environment and how they manifest themselves in terms of specific practices, that's the challenge. The principles are pretty powerful.

Ron: Yes. Very good. All right, Jim. Let's go ahead and transition now into my favorite part of this show, which we're calling The Quick Fire section. This is

where you get to share your personal thoughts and wisdom, which you've already been doing, but now we're going to really focus in on Jim. We're going to put a magnifying glass on you.

The first question is, we, lean thinkers, spend a lot of time talking about respect for people and how important that is to an authentic lean thinking approach. Putting your finger on what respect for people means can be difficult, if not impossible, to some, in your opinion, what does respect for people mean?

Jim: There are two important elements. The first one is just acting with integrity. Say what you're going to do, do what you say. Being that way in you interactions with people is important. Then, treating people as highly capable professionals, holding them to the same high standards that you hold yourself to. Those two things will go a long way in your interactions with people.

Ron: Nice. What's one problem you're trying to solve right now, Jim?

Jim: [jokingly] Just one?

[laughter]

Jim: For me, right now, time management is a bit of a challenge. I, as I mentioned, just retired from an environment that was highly structured. We had a very mature cadence. The workload was tremendous, but there was a cadenced way to deal with things.

Now, in a more independent role with just incredible demand, I think I underestimated the level of demand for lean product development; I'm struggling a bit with time management.

Ron: What are some counter measures you're thinking about? You have any in mind?

Jim: Yes. I'm working to create a similar cadence to what I've worked to in the past. When you have a lot of outside entities you're dealing with, the cooperation level can be mixed, I guess is the best way to put it.

Ron: [laughs] To be polite, right?

Jim: Yes, exactly.

Ron: Jim, what's the best advice you've ever received?

Jim: I've received a lot of great advice. I've been very fortunate to have a number of wonderful mentors, including Alan. The best advice I ever got actually came from outside of industry, and that's "Leave your ego at the door."

I've been practicing Brazilian Jiu-Jitsu for quite a while, which I think we talked about.

Ron: Yes. My son does it as well. Fantastic!

Jim: It's great. One of the most important things I learned there, and also learned in leadership, is to leave your ego at the door. You can really get frozen. It can freeze you up, it can stop you from progressing. That was pretty good advice.

Ron: Just to talk a little Brazilian Jiu-Jitsu because I'm fascinated by it. I grew up as a wrestler. I didn't do Brazilian Jiu-Jitsu, but...similar concepts. Brazilian Jiu-Jitsu is such a humbling experience! I don't care how good you are, you're going to tap, eventually. Right?

Jim: Absolutely! It's unforgiving. You can't rationalize it away. You tap to get over it. Business industry can be a lot the same way. It can be very humbling. If you spend a lot of time rationalizing things away, you don't make progress.

Ron: Conversely, you are going to submit. When I say, "Tap," some people might not know what we're talking about. In Brazilian Jiu-Jitsu, if you get someone in a hold or a move and you've got them and they can't get out, and you're going to hurt them, potentially, if you continue, they'll tap on your back, and then the person stops.

What I love about that concept, Jim, is...even watching my son, he's seven years old, he will get submitted and he'll tap. He'll bounce up, he'll slap hands, knuckle up, and then he'll go again! Then, he will submit someone, but there's no bragging about it. It's like if you get submitted, OK, if you submit, OK. You just carry on and slap hands and knuckle up, and go again.

There are tremendous parallels to the business world that we are going to win and we are going to lose. It's how we react in both situations that is going to tell our stories. Right?

Jim: That's exactly right, Ron. That's why I think it's so powerful. That's why I continue to huff and puff, and continue to roll even as an older guy.

Ron: Nice! I love it. Do you have a personal productivity habit that others might benefit from?

Jim: I think focus. I think deciding what your priorities are, what you're going to do and what you're not going to do is really critical. You can really get caught up in a lot of stuff. There's a lot of stuff. You can find out that you're working really hard and not making any progress unless you're really focused on what it is you're trying to accomplish.

Ron: My business partner, Kevin, is going to love you for that because his biggest mantra for all of us is to stay focused and not get distracted, which is so easy to do. Right?

Jim: Yes, exactly.

Ron: We've talked a lot about different lean product development books and so forth. Can you recommend, maybe, another book on leadership or continuous improvement that you'd recommend folks check out?

Jim: There are so many. I'm an avid reader and it's just almost unfair to pick. Lately, I'm a big fan of the Peter Drucker stuff. He was way ahead of his time. He had some incredible insights that still ring true today.

I've done a bit of fooling around with Mike Rother's "Toyota Kata" stuff. There are elements there that are important. I think the Jeff Liker book on Toyota leadership is a good book, and John Shook's "Managing to Learn." There are a lot of books. If I had to pick one, it would be the Peter Drucker stuff.

Ron: Nice. The last question, and I can't wait to ask you this because you come to the table with an incredible amount of real executive leadership. Let's imagine, Jim, that you've got the itch to get back into industry and you've been hired as the general manager of a company who's struggling with quality, productivity, really they're just a mess in.

You are hired, obviously, because of your background, your experiences, and successes. As it turns out, the CEO that hired you has given you complete operational and penal control and trust that you're going to ride the ship. With this said, Jim, what would your first week on the job look like? What would do and why?

Jim: Just like with product development, the first step is always to work to deeply understand, to go to the Gemba and see what's going on, to go to the factory floor, the engineering spaces. Talk to people, review the data, meet with people both inside and outside the organization, especially customers and suppliers, or third party people that look at the industry.

The big thing is to really understand what's going on because you can't diagnose, let alone prescribe before you examine the patient. I think that first week would be spent trying to deeply understand what's going on.

Ron: All right, Jim, well, thank you so much for taking time. I know you're super busy, so I really appreciate you taking some time out to talk with us.

Let's go ahead and wrap this show up with you sharing some final words of wisdom and then why don't you tell people how they can connect with you via social media?

Jim: I think I've expounded all of my wisdom.

[laughter]

Jim: I'm really passionate about this topic, almost all topics Lean, but especially Lean product development. I'm always happy to exchange with people.

You can reach me at jmor990@aol.com, is probably the easiest way and also through the Lean Enterprises Institute I can be contacted. Again, this is a topic I'm passionate about, I'm always happy to talk. Thanks for inviting me today, Ron.

Ron: I'm sure most people listening to this know that but lean.org is going to get you to the LEI website, right?

Jim: That's correct.

[background music]

Ron: Well, thanks again, Jim. Hopefully, we'll get to meet in person one day. Your work really inspires me. So, keep it up and thanks again.

Jim: Thanks so much, Ron. I hope we get to meet but not in Columbus.

[laughter]

Ron: OK. Take care.

Jim: Bye.

Announcer: Thanks for listening to the Gemba Academy Podcast. Now it's time to sign up for a free Gemba Academy preview subscription over at gembaacademy.com.

Gain immediate access to more than one hour of free Lean, and Six Sigma training at gembaacademy.com.

[music]