



Transcript for the WLEI Podcast:

Rivian: The Electric-Vehicle Company Taking the Auto Industry by Storm.

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Featuring: R.J. Scaringe, CEO, Jim Morgan, COO at Rivian, Josh Howell and Matt Savas of LEI.

Josh: Maybe to start, maybe you can just describe for us what is it about this moment in time and the history of Rivian that makes it such an interesting time for the company.

RJ: It's interesting starting a business like this because there's a number of items you need to have at the same time or in parallel, that, all of which are hard. To launch a car company, you need billions of dollars. You need a thousand plus engineers. You need 250 suppliers providing all the content for the vehicle. You need a manufacturing plant and a manufacturing team to run that plant. Technology has to be proven and tested in multiple winters and summers and then that technology has to be wrapped in a vehicle that will ultimately generate demand that customers will want if it's a unique market proposition. The challenge is the order of operations of how to build all those things when you start from zero. When I started the company ten years ago, I had none of those. No team, no money, no technology, no plant, no suppliers, no facilities.

Josh: And yet you wanted to build a car company.

RJ: Yeah. The challenge is figuring how do you go about building all those things that you need. Even if you had all those things at the very start, it will still take you four years. Perhaps the biggest challenge is the capital needs. You need billions of dollars, but to get those billions of dollars you need to convince people to give you those or invest those billions of dollars, but you need to do that in the beginning without any of the things necessary to prove you can do it.

RJ: To make a very long story short, over the course of the past ten years, we intentionally built different parts of the business and iteratively refined the strategy, had to major pivot off of the initial product plan in 2011 to essentially what you see today. Really over the last eight years, since 2011, we've been putting those pieces together. In some cases, the order of operations was not necessarily what we would've liked, but it was required by how we were able to build each of those areas, so suppliers, team, capital, manufacturing.

Josh: Show us an example of that order of operations as it played out in your case.

RJ: Well, to do anything you need to have some capital. Really, starting with finding the right people to back the business and then developing and building confidence with them. It's not as if eight years ago somebody walked in and said, "Well, here's \$500 million. Get going." You start with much smaller investment levels and you essentially de-risk different areas of the business.

RJ: The areas we focused on de-risking in the early days, in order, largely, to generate stronger support from investors, were within the product and technology space, so demonstrating both that we could execute the product, but also that the product was technically feasible. Secondly, validating and demonstrating that there is a market for what we're building. Today it's easier to see there's a market for building, but eight, nine years ago, the idea of an electric pickup truck took some more convincing.

RJ: To make a long story short, what we're seeing now is actually the culmination of all those sort of parallel build outs all now being essentially full steam and starting to come together. We're very well capitalized. We have a manufacturing plant and a manufacturing team. We have hundreds of suppliers that are deeply engaged with us. We have a team of about 1600 people developing the products. On top of all that, we've wrapped them in a market and brand position that has fortunately really connected quite well with consumers and part of the strategy was we've underpinned all of that with a really intentional technology strategy where the technology used within our vehicles not only supported our own brand and our own lineup of cars, but very importantly supports a multitude of different B to B businesses. The biggest is...

Josh: Is it the skateboard?

RJ: Yeah. Basically taking our skateboard, which the physical version of that is the batteries that drivetrain the cooling systems of the chassis. The digital version is equally important. All the network architecture of the ECUs, the software. When I say software, the full stack of software on all those main, big domain controllers, which we're building in house. Essentially, that providing a platform for which we can create very different products for very different markets. What we've now announced with Amazon is a perfect embodiment of that where we can really rethink, in its entirety, the logistics base using this platform and be able to go very quickly, because we're able to reuse a lot of the more challenging long time technologies.

RJ: Anyway, we're seeing this sort of orchestra starting to play. All the instruments are now there. You're getting to see the music of what took a lot of time to get all the right pieces there, which I would say ten years ago, when I was first starting, it was not at all clear on how you go about arranging all the instruments for that orchestra to play music.

Josh: Yeah.

RJ: It was like anything else. The only way to start was to start. Lots of U-turns, lots of twists, lots of turns, lots of gut punches. Overall, just brute force built it.

Josh: In preparation for today, I just went through and read the series of news releases on your website, just from the last 12 months. Each one of them has the blurb about Rivian and then about Ford or about Amazon.

RJ: Yeah.

Josh: In each of the About Rivian paragraphs, there is a number given of how many people work at Rivian.

RJ: They keep growing.

Josh: From one month to the next, that number can be hundreds different.

Josh: Yeah.

Josh: You mentioned even before we started that just this week 55 people started with the company and that's an incredible rate of growth to have dozens of people joining the company each and every week.

RJ: Mm-hmm (affirmative). I say 1600; I might be wrong. Growing rapidly. By the end of the year it'll be significantly more and certainly by the end of next year it'll be a lot more.

Josh: For sure. How is it as the leader over this organization, an organization that not so long ago was a dozen people, 200 people maybe a year ago, whatever to what it is now. What is it that's different about the challenge that you have as the leader of this organization from what it would have been two years even? Twelve months ago?

RJ: One of the big challenges is ten years ago it was one person. Five years ago it was probably 100 people. Two years ago, I don't know, three, four hundred people. The processes and the systems that we set up when it was 10 people don't work when it's 50 and certainly don't work when it's 100. The process that we designed when it was 100 cease to work when we're 200 and that just continues to play out. A lot of the way things are designed and built when you're operating at a relatively small scale, you can rely on the benefits of just simply being small. The benefits of not having to manage a lot of complexity or a lot of people within the system.

RJ: As we're scaling now, it's designing intentionally processes that are as lightweight as possible, but that streamline everything from how decisions are made to how capital is deployed to how we coordinate between different functions that we have geographically across a few locations, as well, so how do we coordinate across locations. That's a constant state of process design while you're flying the plane. It would be nice if you could sort of pause everything that the business has to do and say, "Hey. For the next month let's work on all of our processes", but we're also flying the plane, so pragmatically you can't do that. We have really aggressive timelines for launching a whole host of different products. Part of it is learning to run and simultaneously swim and simultaneously design the way we're running and swimming. It's complex.

Matt: Yeah. In [your book](#), Jim, you describe something called Enabling Bureaucracy versus Coercive Bureaucracy or sort of just a free-floating enterprise. What you just described, RJ, sounded like you're trying to build that enabling bureaucracy. Bureaucracy is kind of a terrible word, but a way to govern a lot of people as lightly as possible towards a common mission. Yeah. How are you two working together to build... I mean, you've described it as the Rivian Way. How are you working to build that?

Jim: I think RJ described it.

RJ: Working hard.

Jim: Yeah. He described it really well. It's sort of just enough sort of infrastructure to help us operate effectively. As RJ mentioned, we have multiple locations. We have a lot of different functions. We also have people that come from a host of different companies and they have all have different backgrounds, different language, different acronyms, different cultures or styles of working. We have the opportunity to learn from all of them and sort of use that knowledge to create a new, unique to Rivian way of working. Easier said than done because as RJ pointed out, we're also developing products. We're on a critical path. The easy thing to do is default to what you're used to doing. Right? What you brought with you from whatever company you came from. That also leads to people working in cliques; people who speak the same language quote unquote or use the same acronyms or are used to doing things a certain way.

Jim: What we're trying to do is be very intentional about developing The Rivian Way, whether it's the way we develop product, the way we run our manufacturing operations, the way we work with our suppliers. We want to pick all the best characteristics of what people bring to Rivian, but combine them in a new way, in a more effective way. Believe me, the temptation is to sort of default to the easy way of how we used to do this, but I don't think, in the long run, Rivian will be nearly as successful as if we're able to do this very well... I describe it as being very intentional about the way we create these processes, the way we build this operating infrastructure and to enroll everybody in that process is really crucial so that they develop some emotional and intellectual investment in the way things are done. That creates this ownership that can then be sustained over time at Rivian, as opposed to sort of imposing these things on people.

Jim: While it takes more time and can, at times, be a bit frustrating, in the long run, we'll end up with a much more powerful culture.

Josh: It's interesting, the notion of wanting to create The Rivian Way, not try to copy some way of working from any of these other companies where people are coming from. There's the perspective of someone like yourself, Jim, who had a background at Ford and is now, just within the last year, joining up with this company and contributing to the development of The Rivian Way. There's also employee number one from ten years ago or some of those hundred people from five years ago who have been developing The Rivian Way since its genesis that are now experiencing the infusion of whatever, the Ford way, in your case or the Apple way, in the case of some other folks. How is, maybe to speak to your own experience of encountering these different ways of working that people are bringing into this company? Yeah. I guess if you could share a little bit about that.

RJ: Jim said this. It's an important point. We are building a team of exceptional people and are intentionally bringing people them in from a multitude of different places. Whether it's Apple or Tesla or Toyota or Ford, they're coming in with different backgrounds and that's actually good. That's what we're going for, but...

Josh: It's by design, not just by necessity.

RJ: Simultaneously, we have to recognize that as folks come in, we have to unlearn some behaviors or experiences, and then relearn and create the way we work. That's sometimes harder said than done, or I should say easier said than done because there is just a lot of emotional energy that you have invested in the past and to a certain way of behaving that needs to be adjusted. It's not a one-time occurrence. It's an ongoing process of refining and maturing the way we work together.

RJ: The other thing that's happening with the rate at which we're scaling, is processes, as I said, are changing and have to adapt to the size of the organization. Jim and I are spending a lot of time making sure we're differentiating between tactical solutions that are appropriate for that moment in time versus philosophies or organizational behaviors that are permanent.

Josh: I've read the term First Principles as the way you describe this philosophy.

RJ: That's another way to look at it. So when we're 100 people 5 or 6 years ago, the tactics we used there are very different than the tactics we're using today, but the philosophies, you treat people the right way, respect one another, transparency, these philosophies have to remain. Those started, as you said, with employee number one, with myself. Sometimes if the tactics get confused as philosophies, that can be problematic. We're very cognitive of making sure we're crisp on the things that are sacred that can't change, but very flexible and intentionally very fluid on the things that need to change. This is where it's been hugely beneficial to have Jim here helping to design and build what are the processes. Through that bolster and improve and deepen some of the philosophies that tie to these processes.

Jim: I just want to add to that, you mentioned the First Principles piece. Those first principles are RJ's basic philosophy around who Rivian is and why Rivian exists is the main reason that I'm here trying to help. As you know, it took a lot to get me out of Traverse City and it's only because of the aspirations that we have here in Rivian to care just as much about the how as the what. To really be intentional about the why. Those first principles are why I'm here. The opportunity to be part of manifesting those into an operating system into the way we work, the Rivian way, we talk about increasingly. It's just a privilege.

Matt: As we were walking around, it certainly struck me that everybody spoke similar to that, Jim. People are here for not just a salary, but because they feel a great sense of aspirational purpose. I felt that in just the few hours that I've been here. I think another big turning point in the company is taking place at Normal, where you are preparing to manufacture your vehicles and if there is a brownfield in the company, I guess it could be at Normal because this was previously a Mitsubishi plant and there's something of an existing workforce that I understand will be returning to the plant. What's been or how are you thinking about how to take the culture that exists in the offices in Irvine, Palo Alto, and instill them in the plant at Normal?

Jim: I'll take a shot at this. I think one of the things that is really exciting about Rivian is that as we're walking around, I explained that we're not differentiating between roles in the company, types of employees, whether it's software, whether it's the battery labs or whether it's here at the Plymouth Development Center or at the plant. The facility looks very similar. We put just as

much care into the offices at the plant as we do any place else. We work hard to have the same operating rules in each of the facilities. We really strive to make it almost invisible where you are once you get inside the facility, if that makes sense. The way that we engage with the rest of the team is the same, irrespective of what location we're at or what your particular job function is, whether that's RJ talking to everybody. I mean, people at Rivian all value their personal relationship with RJ and I've often seen him interact with people identically, regardless of where they're at. In terms of the manufacturing facility itself, the same field, the same culture, the same look is there, as is in each of the facilities.

RJ: Yeah. I think this gets back to making sure we maintain that consistent philosophy of how we treat people and those behavioral philosophies. Of course the tactics are going to be different. Some of the details of how we run the plant and how the workforce interacts with the course of their day versus how somebody in, let's say, the marketing team, their day may look are going to be very different. We come from the same belief system. You ask the question of what's the process look like at the plant? We're bringing a workforce in that had, in large part, previously worked in this facility with different philosophies and different operating processes. I actually look at that as a huge strength. A lot of it is, for us, we're lucky. This is a facility that was commissioned in 1990. It's a relatively new facility, particularly in the world of brownfield automotive plants. It's one of the newest in the world that we could have acquired.

RJ: The workforce, it's there. Many of them, their first job out of college or out of high school was in this plant. Imagine coming to this facility in its beginning days and helping either build it, launch it, or run it in those early years and then being part of the process of being in that facility for either 20, 25 years and then having to shut it down in your mid-career. Now, the opportunity to relaunch that facility and the energy and excitement that comes from being part of that relaunch and what that means for the community. It's not something that you could actually buy; that kind of commitment. You see it in the workforce. You see it in the teams. There's one of the things, frankly, I'm most excited about with the facility is actually the team that we're building there. Of course, the facility is going to be amazing, but ultimately, it's about the people and the operating philosophies and the operating behaviors we set up there. To have as a backdrop the energy and the passion that people aren't paying attention to whether they're five minutes early, five minutes late, but rather how do I get my job done the best of possible ways? You can't buy that.

Josh: It strikes me that there's an interesting give and take happening in various ways throughout Rivian. Between old existing and new and these things kind of feeding each other. We just described in one way, the sort of flow of the Rivian philosophy, the Rivian culture, the Rivian Way, which is new. This is a relatively new company, and how that's being introduced to an existing, an older place. The factory in Normal, those workers who have had a previous experience. When we were walking around the office here, it was explained to us one of the platforms, where people can sit and there's a sort of stairwell that goes up, that that was transplanted.

RJ: Yeah. From the plant. Yeah.

Josh: From Normal as a catwalk there now is a place. There's a concrete example.

Josh: What would be another example of these previous experiences, whether it's something from Ford or something from Normal. Maybe Normal is a good place to focus on, where Rivian is stronger today and is benefiting from a learning that is sort of pulled out of Normal...

RJ: It's the whole company, to be honest. The whole company is... our strength is the team. The team is a wonderful mix of people coming right out of college to people that have been working in the auto industry for 30 years, people that have been the technology base since the early Apple days. It's by design, a mix of these experiences and the mosaic of experiences that comes out of that is what forms the picture that is the Rivian team. Now, because it is a mosaic, we need to make sure we're organized and we need to make sure we're thoughtful about how we combine all those pieces and we need to be thoughtful about how we train and establish how we work together, but absolutely, the reason our success is going to be built on the aggregated set of experiences.

RJ: You're sitting right here with Jim, so Jim is case in point. He's got, arguably, more experience than anyone in the world when it comes to designing product development systems and processes and designing operating processes. To have his experience as part of this, it's amazing. Jim, just like us all, he's learning every day.

Jim: Absolutely.

RJ: It's through the learnings and through the openness to see the world differently that we take what Jim came in with and we continue to improve it. Jim, do you want to comment on that?

Jim: I completely agree. I think that I've learned a tremendous amount here, but I think we all continue to learn from each other because of the, sort of back to first principles, the humility that's necessary to learn. I don't know everything, right? I can learn from other people that we can learn from, people who came from other companies with different experiences, whether it's the former Apple guys or the former Tesla people or the former McLaren folks that make up this mosaic. The thing that's awesome about Rivian is the focus on being inclusive. The focus on valuing that previous experience, valuing what you bring to the team and integrating that into the mosaic that RJ described and then creating an infrastructure that enables you—we talked about enabling bureaucracy. I think about enabling infrastructures that can bring the best of those people together to create who Rivian is and the products that we create, ultimately, for our customers benefits from our ability to bring that all together into a power force.

Josh: It's really remarkable, Jim, to sort of give you just a bit of kudos. In the world of LEI, Lean Product and Process Development has been something that has been a really focus on the institute for the last handful of years with you as it's leader. There are a lot of people in our community who look to you as the thought leader in this space, in terms of Lean thinking applied to product and process development. I'm sure that you just referenced that it was that wealth of experience that Jim has that was attractive to bring him into Rivian to help in that ways that you're now helping, but at the same time, to hear you articulate really like a learner's mindset and the openness that this challenge is requiring from you, as someone who many of us look to, RJ included, as being really an expert with a wealth of experience and capability that we can all

learn from. To hear you, at the same time, celebrate the learning that you're getting from this experience and what you can learn from.

Josh: We were talking earlier, what you can learn from the 20-year-olds, who are here in this company, the 30-year-olds. I just think that's a real testament to you and what I've really come to appreciate of the leaders that I most admire. Folks like Jim Womack and John Shook, who we all know that really have never lost that learner's mindset. In a world that, frankly, is chock full of a lot of folks that don't have that at all, that are quite confident that they just have the answer to most things. It's really cool that while you're looking to him to kind of come in and really be this expert. Maybe even more valuable to you and the company is the fact that Jim is coming in with that experience, for sure, but coming in as an avid, committed, eager learner himself. If he wouldn't, it sounds like the Rivian Way wouldn't have accepted Jim.

RJ: It's also part of our culture is to constantly be learning and be open to learn and constantly be checking your assumptions. I think it's really important, not only for us as a company, but in this industry with the rate at which things are changing to be open to constantly learning and constantly reevaluating your assumptions.

Josh: How does that flow from you? One of the things that we've been curious about coming in is given the extensiveness of the growth and the change that this company has experienced in just the last ten years. For you personally, what are some of the leadership lessons that you've accumulated over the years? The fact that you're this open learner and cherishing somebody like Jim who is similar. You're amenable to that. It would be interesting for us to hear a little bit about some of the key learnings for you that you've accumulated in the last ten years.

RJ: Yeah. There's not a day that goes by that something new doesn't emerge in something to learn from. I think Jim probably taught me three things yesterday and two of them were after 9:00 at night. Jokes aside, building and scaling a business like this is incredibly humbling because there's simply so much that you don't know and because of the nature of how the company has been built. There are so many mistakes that are necessary as part of the growth process. Key for us, the reason we're sitting here today, is the ability to recognize where things aren't right and the ability to adjust. If the way that I originally envisioned the business or the way that I originally sold the business is we're looking for partners, investors, was the same today as it was nine, ten years ago, we wouldn't be sitting here. I say to my wife all the time, one of the most important things I think for me is to remain idealistic, which means to remain curious. It's actually one of our core behaviors of the business is to stay curious and implicit with staying curious is also learning; continuing to observe all those things that you know you can do better yourself.

RJ: For me, I would say one of the biggest learnings and ironically, if you asked me a long time ago what I thought was the most important thing for the business, I would have said it's about people; making sure you understand the strength. Jim has said to me a few times, the strength of the pack is the wolf and the strength of the wolf is the pack. Really understand that it's the strength of the team and the way that the team works together and the combination of skill sets necessary for team to be successful. I would have spoken to that nine years ago, but not a day goes by where I don't realize that even more so.

RJ: If I could go back and give myself advice, I would have repeated that and said, "Hey, really, it's about the team." It's so easy to say. I ask ten founders what's the most important thing. They would likely say it's the team, but really believing that and then really driving action from that in how you recruit, how you promote, how you provide feedback. When you have to make hard decisions, meaning when you have the wrong types of people in positions within the company, removing those people. How you go about removing those people. These are all things, each one of those, embodies many, many learnings for myself and, of course, with that, many mistakes, I'm sure, that in hindsight I would have approached differently. It's the acknowledgement of how to do those things differently, then it forms the future actions.

Josh: Just to get a little bit more specific. Jim, you've been at Rivian for how long now?

Jim: Five months, six months. Something like that.

RJ: Full time? Sort of. He's been involved for a while, but.

Josh: For a while, but five or six months you've been coming here, supporting the company. First as interim CEO and now as COO.

Jim: I was never a CEO.

Josh: Oh, sorry. Did I say CEO?

RJ: Yeah.

Josh: I meant to say COO.

RJ: On some days.

Josh: Sorry. COO. I'm just curious. We're talking about learning. RJ, you mentioned you've learned a few things from Jim last night late, but what are some specific things, takeaways, that you've received from Jim that have changed how you behave and vice versa. I'll ask Jim the same question. Let me start with RJ.

RJ: Actually, what I said relates to the broadest categorization of how to build teams. In building a company, there's always gaps. There's lot of gaps. I think on day one, of the first year. Day one, year one. I was everything. I was everything from the janitor to the head of CAD to the head of design to the head of HR, because of that, the ways in which we executed certain things weren't going to be as robust as we would like. Today, a lot of those gaps are filled, but gaps still exist. Within that, the roles for all the individuals within the company are also evolving.

RJ: A big part of designing the company for growth is identifying where our strengths and our weaknesses are and when we identify strengths, making sure we apply them in the right place. When we identify weaknesses, making sure we respond in the right way. There's many ways to respond to a weakness. Often times it's looking in the mirror and saying, Jim talked about it

before, "How can we set the scaffolding better? How can we set up the organization to enable this weakness to become a strength?" I think we're doing that beautifully right now. It's always something I wish we could get faster on, but we're identifying ways to get the absolute most out of our people and play our team's strengths and then where we see weaknesses, understanding the root issue of what is if something is not working well. Very often it's easy to point at a person or an individual or something technical, but often it's more nuanced than that. You are guys are familiar. What are the five whys? Really, let's understand what's really not working here. That's something Jim has coached me on a lot, which is making sure we ask the second, third, fourth, fifth why, if you will, to make sure we don't immediately think a problem is what our initial exposure or visibility to that problem might be.

Jim: I think for me there's so many things. First of all, technically, I've learned a ton from RJ in terms of the proposed system that we have. All this stuff has been very unique to me. Our battery systems. It has been an incredible education from a guy who comes from the internal combustion world and I've just learned a ton. I think the thing that stands out for me most, in terms of what I've learned from RJ, is his ability to think six steps ahead. I think that's what helps make him such a successful entrepreneur. It's what helps him be an effective leader and I find myself always playing catch up with RJ, like he's already there and what goes beyond that. Expanding the way I think strategically to think multiple steps ahead. We talked earlier about the second life work that RJ has been doing with Alex Honnold Foundation, but we could go on and on in terms of thinking through our distribution service, whatever, models as we think through the business. I think that's where I've learned a ton from RJ.

Josh: I'm excited to see what things we've yet learned about that you're already planning.

RJ: Yeah.

Josh: As in, what you have in mind for the products and the services and everything that are going to come out.

RJ: Yeah.

Josh: One thing that, Jim, you were sharing as we were walking around today, that you've introduced into the way of working here that's now starting to shape the Rivian Way, is the idea of visualizing the work in these obeya spaces and cadence meetings. You described a few that are now set up. That's obviously a big part of the way of working with Lean Thinking. I would be curious to hear from you, specifically, what's been your experience with some of these tactics, I guess, or techniques that Jim has introduced to the management team and executive team, in particular, and what you perceive as beneficial with working in these new ways.

RJ: Yeah. I think, at the core, the reason for the cadence of meetings or the obeya rooms and visual management to be put in place, the objective is, essentially, to make issues clear. [You can't manage a secret](#), as Jim likes to say. That's been really effective and it's been really timely, as well, as we've scaled. The process is one we've used in a small group and it just doesn't scale when you're at this size, as I've said before. This has been great. I think a lot of the visual tools are pretty much in place. The obeya rooms we've set up. What I find most exciting about them is

that they've become self-perpetuating in the sense that the teams truly derive great value from them. What we've set up at the plant, for example, versus six months ago, we had a light visual management system in place, to what's now been put in place, which is really the beginnings of what is an incredible obeya management room, if you will. Jim started that chain reaction, but that chain reaction has now been embraced by the plant management team, which is exactly what you want.

RJ: We had a picture that Jim sent out yesterday of the team at obeya meeting and you see the level of engagement. You see the level of engagement that is being created because of it. You see that we're identifying disconnects. We're identifying problems before they exist because of visual management, because of the tools we're putting in place. It's incredible.

Jim: Back to that learning theme that we talked about earlier, as we have been talking about this, as we have been engaging the team in some of these tools and methods, we've been very open about the fact that it's not going to go right the first time.

RJ: No.

Jim: In fact, it's probably going to suck the first time through, but the idea is we're putting them in place to do PDCA. To continually reflect on what we're doing and how can we make it better. That not only helps to improve that infrastructure, but it's also part of enrolling people in the process; making them part of creating this. What was great about the... the reason I sent the picture out to RJ was it had nothing to do with me. It was Kipp, the plant manager and all the area managers were engaged. I wasn't even there. It was them owning it and making it into something that works for them. I think that's the most important part of any of this.

RJ: Yeah. It's a chain reaction that Jim started, and he has really been the mentor across the whole organization on that, but to see the teams now start to embrace it and then the effect that has on other teams when they see the benefits coming out of these types of approaches and tools. It's great.

Jim: They've improved on anything I envisioned. They're in a place now that if I was sort of directing this, we probably never would have gotten to. By engaging across the leadership team there, it's a much better product or system than it would have been otherwise, because they've all made it better.

Josh: We talked earlier, maybe there's an opportunity to go see that at some point. I would love to go to Normal and check it out and maybe even watch one of these meetings unfold in that space. Conversely, I guess, you also walked us into a room here in Plymouth that was, as you described, a failed attempt to set up an obeya and build a meeting within that context.

Jim: I would characterize it as a temporary failure.

Josh: That's right.

Jim: Again, we don't hesitate to push the reset button if something isn't working. We're not wedded to it. It's the difference between set based and iterative design. We tried an experiment; didn't work. What you saw in there is we're re-constructing now based on what we learned through the first experiment. Again, that goes back to humility. Some of us have been doing this a long time. We still get stuff wrong. We're okay to push the reset button and not continue to labor with something that's going to get us no place.

Josh: What I thought was cool about it was you described that there was a team that is now kind of taking away the learning from that experience to rethink the way to do it.

Jim: I think if you come back out here in, whatever, a couple months.

Josh: Yes, please.

Jim: You'll see something else there that, again, that the team takes ownership of.

Josh: Very cool. One thing, I'm kind of sensing two themes. One is just aspiration. There's a sense of purpose that exists here at this company driven by the goals you have as an organization to make, I think, the world a better place.

RJ: Mm-hmm (affirmative).

Josh: Through, in this case, making electric vehicles more available and out on the road. Then there's also the, what we've been talking mostly about, is aspiration: inspiration may not be enough. You need to organize people in a manner so you can channel that energy, that inspiration effectively. I would like to explore the aspirational part of the company with you, RJ. What sort of contexts, what kind of vision are you trying to create and it appears you certainly have created it. You can feel a sense of dedication to the people in the company. What environment are you trying to create and what vision are you trying to set for people at Rivian?

RJ: As you look at what's happening within transportation, what we're going through, you talk about an inflection point for the company, we're also going through an inflection point within society and how we think about moving people and goods. It's a necessary inflection point. If you zoom way out, the way we move around on the planet today and for that matter, the way we power our lives, is almost entirely based upon fossil fuels. It's an interesting challenge of time scales where the fossil fuels that exist on our planet today were built up over the course of approximately 300 million years. We're consuming at such a rate that we've used about half of that in about 100 years. It's not a debate about whether or not we have to switch off our dependence of some fossil fuels, it's just a requirement, provided we want to continue living the way that we live or something similar to the way we live today.

RJ: What's interesting is if we were consuming at 1/3,000,000th of the rate that we consume today as a planet, you could just continue to allow for fossil fuels to replenish themselves and live off of fossil fuels, but given the size of the human population on the planet, it's simply not possible. The other wrinkle that makes this quite interesting is the impacts of burning fossil fuels. While we know with certainty we have to move off of them within a couple of generations

follow us. It's a certainty. We also know that the longer we wait to make that transition, the greater damage we do to the climate, the planet, to air quality. Essentially, we're moving carbon that was buried into the Earth and we're moving it into the atmosphere, which has an impact on temperature, has an impact on climate patterns. We're also changing the makeup of air quality, particularly in dense cities, putting things that are toxic and pollutant in the air.

RJ: We see a huge urgency to solve that. Solving that is not a simple problem. It requires many companies like ourselves to participate in this cross-fold planetary solution. I think this intrinsically motivates the team really nicely. We see what we're doing as a key part of that. In the personal vehicle space we're creating products that help generate excitement and awareness around electrification. We're seeing other companies respond to some of the things that we've built, which we love. That's a really good thing. It's awesome to have more variety of interesting and desirable electric vehicles. It's also important to have consumers want those electric vehicles. We're doing the same with the leveraging of our platforms. What we're doing with Amazon is going to set the bar for what other logistics and fleet operative players have to do.

RJ: Just that strategy and its role within, from a humanity point of view and from a social point of view, creates a level of motivation that can't be fabricated. We're building something that is meaningful, that matters for our kid's kid's kids. It also is a natural filter for the types of people that we recruit into the organization.

RJ: That alignment around doing good for the world and working our hardest to make sure we leave things better than how we got them, informs so many different things. An example, just one that Jim and I were talking about late last night, is on our logistics team, we're looking at the dunnage we're using within our facility. There's many ways to do it. You can use cardboard, you can have reusable dunnage. What we're working towards, as our long-term philosophy, is to, of course, reusable dunnage, but to make that from recycled ocean plastic. Is that going to get all the plastic out of the ocean? No, but is it going to start that process and make a very clear statement? Is it going to create a downstream demand for millions of tons of plastic? Yes. These are the kinds of things that customers may not ever see. Actually, very few customers will ever see our dunnage, but that are so ingrained and deep within the company's philosophy that that just drives these types of decisions and then self-perpetuates, so people see that kind of behavior and say, "What can I do to be more efficient in terms of my work or in terms of the product or in terms of the way we make the products?"

Jim: That particular idea, the people that are doing this work around the ocean bound plastics, nobody told them to go do that. They got excited about this concept. They did the work around how do we make this happen and how do we bring this to RJ and Jim and talk about how we incorporate that in the way we do our work? Nobody had to tell them to do that. That's their enthusiasm. RJ mentioned a couple of times, we talked about this or that. It was after 9:00. When we left here, we weren't the only ones in the building. That sort of internal drive and enthusiasm about being part of Rivian and being part of what this organization stands for is palpable. You guys felt it coming in here and I see it every day.

Josh: I heard a phrase and I may not get this quote correct, so you guys can correct it, but the idea of this being a company that is creating adventure vehicles for the outdoors that cares for the

outdoors sounds like such an obviously good thing to do and yet, maybe here is pioneering company in demonstrating how to do that. Even that idea that you're now explaining, which aligns with that sort of mission statement in a pretty clear way. It strikes me that there's a corollary statement that describes, also, the company you're building as a company that is for customers, of course, to create, to inspire adventure and provide means by which that can happen; but that is also very committed to caring for the people here who are participating in that. You described that it's not just a company focused on the what, I guess, the car and what that's going to mean for customers; it's also a company that's quite caring about the how and the experience that your 1500, 1600, 2500 people, whatever that number happens to be on a given day, how they experience the Rivian Way.

RJ: The organization is actually the most important product we have. We could create a great first product, but if there's not an organization that's robust and built upon solid foundation sitting behind it, the second, the third, the fourth product, so to speak, won't be there. Were very cognizant and that's something Jim is a huge advocate for and has really helped us think about that, as well: the organization is the product.

Jim: Being very intentional, right, about the way we develop the organization, just like you're very intentional about developing the ultimate product that goes to your customer.

Josh: There are people who are going to listen to this conversation; and we were thinking about in what way will this conversation be relatable to folks who don't work at Rivian. How will they connect to a conversation with you and the conversation about this company? There are not really many other companies like this out in the world. Their experience is going to be very different. Your experience at Ford was very different. My experience at Starbucks was very different. Matt said earlier that these are companies that are mainly sort of Brownfields that exist; that have been around for a long time and there's often, especially for the Lean person in the company or just any kind of a change agent and a leader. There's the challenge of trying to influence a Brownfield; influence an existing culture to be different. Often times, those individuals, I have been one in various situations, lament that challenge.

Josh: "If it wasn't for this Brownfield, if it wasn't for this existing culture, if it wasn't for the years that this company has. I could leave the company to operate more effectively to perform at a higher level to practice Lean thinking..." whatever they may be trying to do. Whereas in this situation, there maybe is a Brownfield in Normal, Illinois, to some extent, but everywhere else and probably also in Normal, there's really a clean sheet is the phrase that I've heard quite a lot today. Folks often long for an opportunity where there's a green field, where there's a clean sheet. Where they can just do it right the first time, as if that would be a different or maybe less challenging experience than they're having in their Brownfield.

Josh: Talking with you guys just even over the last hour and in advance of this conversation, that clean sheet, that green field seems to have all sorts of challenges to it. It may be somebody who is not in the situation that you've been in with starting up a company or that you've been in joining a company that's just ten years old are actually encountering. I'm curious, when you thought about building a company from employee number one to the numbers you have today and as you think about going forward, what are some things that maybe you thought would be

easier than they've turned out to be in building a company or even some things that you thought would be really, really, difficult that have turned out to be easier than expected.

RJ: Clean sheet is challenging because on one hand you get to build everything from scratch, but on the other hand you have to build everything from scratch. A lot of times you're not starting from a process, but you have to be careful that as much as we start with a clean sheet, we're always now have a painting, and it's constantly evolving. Every company has some version of that. After day one with Rivian, by day two we were already evolving what we had done on day one.

Josh: Stuff on the sheet?

RJ: Yeah. Today we're in that state of making adjustments, making changes as we described over the course of the conversation that are not too indifferent from what you might see at a larger company that may have 100 years of paint on the canvas, so to speak. I think it's really important in these things to find the opportunities to improve things, as opposed to finding the barriers and focusing on what those opportunities are. We have lots of barriers. There are lots of challenges for us. No doubt. Clean sheets; starting fresh always seems... the grass is greener on the other side. It always seems like it may be easier, but first, as I said, it's not entirely clean sheet and two, it does require a lot of work. It's a lot of building. Case in point, if you think about, take manufacturing processes. We're designing a lot of those processes from scratch, but we're building those off of the aggregated set of experiences we have within the team. Because we're designing them from scratch, the challenges we're running, we're going as fast as we can. In some cases we wish we had a process that we could at least tweak. In some case, we'll put a rudimentary process in and remove the clean sheet, knowing that we're going to change that rudimentary process relatively quickly.

RJ: To answer your question, I think one of the most important ways to look at clean sheet, Brownfield, regardless of how you look at it, is to find opportunities for improvement and be optimistic about hunting for those and going after them.

Jim: We talked about this a little bit earlier. I was one of those who said, "If only I had a clean sheet. My advice is careful what you wish for." It comes with its own set of unique challenges, right. Not necessarily harder, just different. RJ talked about building the plane while you're flying. I talk a lot about laying the track just in front of the train and some days I feel like I'm one crosstie ahead and other days I feel like I'm one crosstie behind. It's different challenges, but it's incredibly exciting for me. I think it inspires that opportunity and inspires a lot of the people who are here. When I talk to people who are joining us or thinking of joining us from other EAMs, companies that have been around a lot longer, I spend some time talking about that challenges are different here. It's not the same as fill in the blank, wherever you came from. For some people, that's really exciting. For other people, it's super scary.

RJ: Yeah. When I meet with folks that are thinking about joining the company, I'm always very clear on this and say, prior to being at Rivian, "If you like hiking, there is hiking where isn't a trail or where the trail is very loosely defined. Then there's hiking where there is a paved trail. Both are forms of exercise, but without a paved trail it's a very different experience." For some

people, they prefer that and we're always very, we've gotten much better about it, but we're very precise about how we explain that to people before they say, "Look, this is a steep climb."

Jim: This is going to be different.

RJ: This is a steep and difficult, but highly fulfilling climb.

Josh: So, here is the question that Jim Womack gave us to ask you.

RJ: Oh boy.

Josh: Why in the world did you want to start a car company?

RJ: I've been a car person since I was a kid. Grew up in and around cars since I was a little kid. Just loved cars. I got involved in restoring classic cars and it's been one of my central defining passions is the automobile.

Josh: There's a lot of car companies out there you could have gone to work for.

RJ: Yeah. As I started to get older and understand the system around cars and automobiles it started to deeply bother me that the things that I loved so much were simultaneously responsible for really damaging the place in which we lived. As a human being, our only home, so to speak. I'm simultaneously really into the outdoors. It was just this weird and painful crossroads where two of the things that I loved most were in perfect conflict. I decided to really study and go into that. By the time I was maybe 20 years old, I knew I wanted to start this company and it was just a question of when and how. If you asked me when I was 20 years old how I would do it, I would have said I'll probably go work somewhere for some time, but ultimately, the circumstances evolved such that I started the company much sooner and I'm certainly glad that I did, but it was really the nexus of how do we create vehicles that are simultaneously exciting and will inspire people in the same way that cars inspired me as a kid, but then also enable and promote the outdoors. You hopefully can see that in our brand. It's very much what we're going after.

Josh: Jim, who did step away, says he asked you essentially that same question when he first met you back at MIT. Why in the world would you want to start a car company?

RJ: Yeah.

Josh: He's been curious as to whether your answer today is the same answer that he received back then or not.

RJ: Back then? Yeah. Probably even sharper. I met Jim Womack when I was at MIT long, long time ago and he was giving a course that I was sitting in on and near the end of the semester I went up to him and said, "Hey, I'm thinking about starting a car company." You guys met Jim Womack, so. That then began a 20 minute set of questions, which were both highly interesting, highly humorous and highly challenging. Ultimately, it was really that desire to create something

that could simultaneously satisfy both ends of the spectrum. Drive towards sustainability, but also enable enthusiasm for the automobile.

Josh: Cool. Since Jim is not here, I'll let you know. He thinks you're nuts.