

Ep.3.33 - Cynthia Hutchison

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SPEAKERS

Announcer, Ed Clemente, Cynthia Hutchinson

A Announcer 00:01

Welcome to The Michigan Opportunity, an economic development podcast featuring candid conversations with business leaders across Michigan. You'll hear firsthand accounts from Michigan business leaders and innovators about how the state is driving job growth and business investment, supporting a thriving entrepreneurial ecosystem, building vibrant communities and helping to attract and retain one of the most diverse and significant workforces in the nation.

E Ed Clemente 00:29

Hello, I'm Ed Clemente, your host. And today we're fortunate to have Cynthia Hutchinson with us. She's the CEO of the US Center for Advanced Manufacturing. Welcome to the show, Cynthia.

C Cynthia Hutchinson 00:39

Thank you, Ed. It's nice to be here. Looking forward to it.

E Ed Clemente 00:42

Yeah. And I know that you're relatively a newer organization. And I know you were announced, I think, not the last Mackinac Policy Conference, but the one before it. So it's been over a year now. And so why don't you tell people what is it your organization does in a quick sentence, but then how it sort of, the origin story too?

C Cynthia Hutchinson 01:07

Well in a quick sentence, the US Center for Advanced Manufacturing is the organization that's

Well, in a quick sentence, the US Center for Advanced Manufacturing, is the organization that's trying to bring together all the policy issues, the academic issues, and what the private sector needs to be successful. And we're doing that right now. Because we're at a moment in time with advanced manufacturing, where this is a chance for us to not only do well, but actually regain a lot of our manufacturing dominance that the US historically has had compared to the rest of the world. So we're very excited about the timing of this.

E

Ed Clemente 01:36

Because you're sort of housed, I think you're officially house maybe an Automation Ally, I'm not sure. But you are much more of a national organization. And why don't you sort of unpack how it germinated and with the governor and the World Economic Forum.

C

Cynthia Hutchinson 01:53

Thank you, I'll gladly do that. It's been a very interesting journey, because I had an opportunity to work with automation ally and in that role, had a chance to lead the partnership with the World Economic Forum on a smaller project. As a result of that engagement with World Economic Forum over a period of about three years, they asked me to come to Geneva and do a one year fellowship. During that fellowship, I learned the power of the centers, they have a global network of 15 centers, usually one per country that does very specific tasks. Many of those are very policy driven. I met with the forum and at the same time as me with the MEDC, the governor's office supported this to say, Well, how do we become not just the US Center about policy, but how do we become the advanced manufacturing epicenter that I believe Michigan has been born to be. This is a role, we've lived it, we've just never owned it, if you will, as a roll. So we, from both sides of the pond, we built our relationships and the World Economic Forum agreed to try a topic-specific center, and the state of Michigan was willing to fund it. So we've had funding from both Oakland County and from the state the MEDC and when we signed it, you were alerted the 2022 Mackinac Policy Conference where the governor and I signed the agreement. When we signed it, the agreement was, I said, one of the ways to make Michigan look good on the national and global stage is to get out of Michigan. So I'm going to have to spend some of the time I'm doing running this job out of Michigan, not in Michigan. So our first thing was to limit our executive committee to only one private sector Michigan-based company, the other EC people come from Southern California, northern California, Wisconsin, New Jersey, and Maryland, because it's important that we actually live our story, which is we're national, we just happen to be based in Michigan. So we're taking the best we find around the country, and capitalizing on it and always pointing back to Michigan as the epicenter, but the entire U.S. has an opportunity to recapture manufacturing.

E

Ed Clemente 04:03

Yeah, I mean, an analogy would be like it makes sense for say, for example, Silicon Valley to be where it is, because it just the way that Hewlett Packard and those companies started, but you're basically doing the same thing but on the manufacturing side, and the new generation, obviously, advanced manufacturing, and what sort of what do you what is your definition for advanced manufacturing? I know you probably can break it out better than I can.

C

Cynthia Hutchinson 04:28

It really is the overlay of technology into manufacturing. You know, it's there's always a temptation to separate technology from manufacturing. And the reality is we can't do that anymore. I mean, a robot is really a technology device that facilitates manufacturing, the automation lines facilitate manufacturing, if you go all the way back in some ways, to Henry Ford's assembly line, it's facilitated manufacturing. It's just now instead of it being just the system, it is so often things like AI, so if artificial intelligence is helping machines learn faster, the machines learn more specific and extrapolating data rather than just interpolating existing data, taking data and extrapolating to what it could be, those kinds of things are really overlaying all the Gee Whiz technology into the reality of, you still have to make the thing. You know, no matter how exciting technology is, people get very excited about AI, they get very excited by all kinds of technology, augmented reality, but sooner or later, you know, the food we eat can't be augmented, it must be actual food, and how do we facilitate growing it better, harvesting it better, keeping it closer to home, making sure that the people who work in that have a living wage, making the painful things like bending can be reduced, and that can go to the robot and in turn, the humans can do more powerful work. So I think that's really advanced manufacturers, just taking all these data points, and all this technology that overlays manufacturing, and weaving it together so that manufacturing is more productive, and more efficient.

E

Ed Clemente 06:03

Yeah, it's excuse my sort of way I'll put an analogy on it. But it's sort of like constant self-auditing, and then evolution. So that say, for example before, we'd look at the length of a machine, like before it started getting metal fatigue and things like that. This type of advanced manufacturing is already baking all that stuff in based on actual real time data, right?

C

Cynthia Hutchinson 06:30

It is and you know, one of the great reminders that we see is that, you know, with 3D printing, we talked about, so there's another element of advanced manufacturing because sustainability, circularity, environmental concern is so grave right now, as we look at climate issues, we start to look at, is there a way we can do this with less damage to the environment? And one of my, this is not a real thing that's happening yet. But clearly it's what I want to have happen. [Okay.] So mining. We know that cobalt mining is an issue. We also know there's a cobalt mine in Maine, and Maine is a beautiful pristine state, that's probably not going to dig big, big mines and I'm sitting back thinking, we have robots, we have a lot of technology, isn't there some way to start to use that technology to go straight down without wiping out swaths of hundreds of acres of land, but actually figure out exactly where the cobalt is and extract it without the damage the environment we've had? Or, more importantly, even looking at? What is it we need, what do we really need to be effective? You know, the EV car. For now, we're moving forward with EV. But we still have gas. And if we're not cautious in how we move forward, it still takes gas, it takes fossil fuel tools to dig the minerals out of the earth that make us the batteries that make us the fuel efficient cars that don't damage the environment. So you've got to step back and say, let's make sure we're doing this right. So I think that's one of the things I'm excited about with Michigan, I've certainly seen our governor doing a lot of clean energy, better ways to manufacture, better ways to protect the environment. And I think that's one of

the unique things with this. As you point out, the self learning kind of thing that comes with AI, there's a chance to evaluate what each thing is doing and make it better and better and better. So we don't have to wait.

E

Ed Clemente 08:28

We had a guest, I'm sure you're familiar with, ONE, Our Next Energy group. And when he was talking on the show, he actually talked about how, I guess AI or you know, was actually helping him trying to find less rare elements, especially metal ones, that could be used to supplant maybe these harder to find ones like cobalt, zinc, or, you know, copper, whatever it is. So you wouldn't have to do what you're saying, like, we don't have to do it, maybe we can even leapfrog over some stuff. And that's going to be the bigger challenge. That's what he's trying to figure out.

C

Cynthia Hutchinson 09:08

And it's funny, because I've talked with them, and they're literally, this is one of the things that's exciting about running the US Center. They're working with the state of West Virginia, the state of West Virginia has committed 1000s of acres of land, to wind farms. And as he was describing its former coal and so again, it's a great reuse of land. Former coal land now being used as wind farms. And then he was talking to me about how the ONE, he is going to be storing energy there. So I'm like, it's actually a farm and you're actually the silo, it's actually a farm and instead of grain in the silo, there's energy in the silo. And it's very exciting to see those kinds of technologies take hold in large scale. We're seeing that across the country. We're going to Texas in November. Not only is our executive committee from around the country, we do a C-suite series, so, top 20 or 30 C-suite people who are engaged with the US Center, and those who are considering engagement with the Center get invited to a roundtable on a quarterly basis, and they move from San Francisco to Wisconsin, to Michigan, and now to Austin, Texas. So we're moving them around, so that they're in different parts of the country, we get a different community. But as we look at that, in Texas, we're looking at, how quickly is digital transformation taking hold of companies? And what does it take to make it successful? Where is it working? And where is it not? And we include policy people in each one of these meetings so that we're not designing in a vacuum, and we're making sure policy people hear what industry has to say, and industry, here's what policy is developing.

E

Ed Clemente 10:46

Yeah, and I think, for my benefit, but I'm sure for some of the audience. C-suite usually means corporate suite, right? That's what the C stands for, just in case.

C

Cynthia Hutchinson 10:58

It's actually the chief executive office. What it really is, is people who have the power to make decisions about the company.

E**Ed Clemente 11:11**

And that's what you're doing with these series of events, I see ones in Los Angeles, or somewhere else coming.

C**Cynthia Hutchinson 11:16**

Yeah, we move them around the country, again, it's what's been really gracious as our executive committee is all kind of lined up to host them. So we've been we've been hosted by GE Healthcare in Wisconsin, by HP in Silicon Valley. And now we're being hosted this time, by Flex in Texas. So there'll be a factory tour, we still like to get gritty, and we want to meet the factory, and it doesn't have to be gritty. You got to meet the factory and see how the factory is running. GE Healthcare was fascinating, because they took us through there, one of the mammography studios, and then an MRI study. So you got to see that level of technology being generated. And it's just every single thing we do is quite delightfully fascinating. At GE, one of the things that was interesting is, as much as we all want to put COVID behind us and pretend it didn't happen, we'd like to be back to our normal lives. I did ask the Chief Procurement Officer from GE Healthcare, if she would put together a team of people, a panel, to talk about supply chain, and how it was handled differently during COVID, from how it usually is, and the stories that come out of it and things like people cosigned each other's loans. If you're asking a much smaller company than you to take on tenfold so that you can make ventilators to save people's lives, they can't get the loan back. So you know, there was those kinds of unique crisis management things came into play. And my step back is, the U.S. has a moment in time now to recapture manufacturing prowess to bring more back as we start to look at reshoring. Do we need a crisis to help each other out? Or can we put together some systemic partnership within government and private sector that say, this is how we're going to operate all the time, if I need tenfold from you? And because we're doing something that we know, is the right thing to do for Michigan or for the U.S.? How can you and I help each other so that I can make sure we can execute the end result, which is for the good of the nation? So that's the kind of conversations that I think are quite fascinating.

A**Announcer 13:14**

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E**Ed Clemente 13:38**

What you're describing is the basic foundation, sort of like basic researches, kind of, because you've got to keep doing it all the time. But then the applied research would be more of the invention, the necessity is the mother of invention kind of thing, right? Because you had both basic research going on at the same time, you had this crazy demand that never existed during COVID. That actually accelerated a lot of things that actually had we not had digitization and things like that in place, we could never have done it, like even the vaccines is a good example of how quickly they could turn around those things.

C

Cynthia Hutchinson 14:18

Absolutely, that ongoing research is critical. As a matter of fact, next week, I'm going to be speaking in Boston and I've had a pretty unique opportunity to share a stage with Shri Ramaswamy. He is the senior adviser to Secretary of Commerce Gina Raimondo. And he really developed the CHIPS Act. I was talking with him, e were going to be doing separate presentations back to back and we talked about wouldn't it be more interesting if we did, kind of like you and I are right now, conversation because I want to know, so you developed the CHIPS Act. It's a great solution, we're seeing it's clearly bringing chips manufacturing to the U.S., which is a critical thing we want to have happen? How do we sans crisis, develop the next thing that we might need that we don't know what it is yet? What is the more systemic solution that's sitting in the wings waiting, that's got wind behind it, everybody believes it's going to happen. But whatever the next thing is, how do we not have to name a crisis, but be ready for it. And I think it's going to be a really interesting conversation, because, you know, he'll be able to share some policy insights with us. And I hope to be able to share some private sector, this is what companies are telling us. This is why they're thrilled about the CHIPS Act. And this is where there's a gap. So we're able to provide a little bit of a gap analysis for some of the government policymaking bodies. And that's also an exciting world to have, because I think we've been fortunate to have access to some people with great insights.

E

Ed Clemente 15:49

And that's what's exciting, I think, in general, is that in a way your organization's like a generalist sort of organization versus specifically just for chips, or for EVs, or something else. And what you're kind of saying is, people need to be more open minded to everything, because I listen to a podcast recently where it said, if people would have, like, fell asleep in like 1880s, and then woke up in like the 1920s, they would have seen a huge evolutionary change from cars to everything. And then in the last 60 years, we haven't seen that. But now again, you might be seeing that because of the digitisation that someone who fell asleep maybe 10-15 years ago, wakes up in 10 more years is going to say, like, Oh, my God, this is a very different world. And obviously, you're kind of at the tip of the spear for that kind of thing.

C

Cynthia Hutchinson 16:42

And it's trying to anticipate where those next things are going to come from, and how we're going to manage them. You know, there's a lot of speculation about AI. And it's kind of funny, because I think most most companies are fiddling around a little bit Chat GPT. When I do invariably, it often brings up things I've said, or somebody else I know. So it's certainly far from creating knowledge. It's aggregating new knowledge. And it's an interesting thing. It's We've got a ways to go before it creates, but we need to stay ahead of it. In general, technology tends to lead, ethics follow. And I think it's wise, I like the fact that there's a lot of anxiety around AI right now, because it seems that there's a focus on ethics that we haven't seen in other areas. And you know, one example would be prenatal testing. Prenatal testing for a variety of things, many of which cannot be resolved, they can simply be identified. And then the mother, the family is left with big decisions to make. We had the testing way before we had any ethical discussions about what do we do when we find out that we're predisposed to dying young of cancer, like what do with that knowledge, so now I feel it with AI, there's an awareness, a really

strong awareness that we need to pay attention to how we're doing things and put some ethics, guardrails, if you will, into place to make sure that technology is driving us forward as a society, not just as a nation as a society, and not into a place we don't want to go.

E

Ed Clemente 18:18

One of my favorite professors used to say that public sector provides legitimacy but private sector provides urgency, and usually a challenge of those two together, that friction that it creates between those two, which is what I think has made America exceptional, somewhat globally, because we have both of those things in big quantities, right? That the, you know, private sector and public sector bumping into each other and everything, which actually helps I think your job, right?

C

Cynthia Hutchinson 18:50

It does. And I like to create the urgency, I think it's really important. And that's really fun. That's a great quote, though, that one creates the ledger. [Are you gonna give me credit for it?] Yeah, I'll give you credit for it. Legitimacy versus urgency, because I know, I look for the public sector to do just that, to give us legitimacy. One of the projects we're working on right now is we're doing a book called The State of U.S. Manufacturing. And I want to know, the good, bad and the ugly, working with eight academic institutions around the U.S. finding out where are we strong? Where are we weak? What's our exposure? What's real? If we're really, really good at AI, let's talk about if we're really not good at something. Let's talk about that. Let's make sure we know what the next five steps are. And I have asked my dear academic friends, no matter how deep dive they take, if it can end with three to five action items that can be excellent. Everybody from an OEM to a fourth tier, then it's not good. It's got to lay on to that space and there's got to be underneath. We've got to be able to land it where people understand. So I think it's going to be exciting, but at the end of that, my goal is to have the Department of Commerce read it and say yes, I want to write the foreword. This is good. So that's the legitimacy that we seek to make sure that our work and our sense of urgency is aligned with what, it's not just seeking legitimacy for legitimacy sake. It's, I want to make sure that the work I do is aligned with the work that's needed, otherwise, I'm not making a difference.

E

Ed Clemente 20:18

Well, it also fits into the ethics thing you were talking about as well. Because if you don't, but you know, you don't know ethical extensions of whatever is done until it bumps up into something, and then you figure it out. But you can't anticipate every additional sort of option that could happen. But you try to do the best you can I get it. Just so you know, a couple of things, too. We should also put a plug in for a previous guest Francisco Betti, who I believe is also on your board. Why don't you tell us who Francisco is?

C

Cynthia Hutchinson 20:48

Francisco was the head of the platform for advanced manufacturing and supply chain. He's recently moved into a new role where he's now with a foreign institutional role, which covers all the technologies all the offerings out there. So I don't even know his new title. It's very swanky

the technologies, all the offerings out there. So I don't even know his new title. It's very swanky. He's a wonderful human being. He's just a good, good soul. I had the privilege of working directly with him when I was in Geneva. He's amazing. And I love having him on. He's the kind of executive committee person who gives you actual insights good and bad. You know, Cynthia was a good meeting. But you could have done this, this and this, next meeting, I'd like you to bring it up. And I love that kind of input. I do not have an executive committee that tells me I'm great. I don't need that. I have a mother for that.

E

Ed Clemente 21:36

Well, maybe even your kids might challenge you. So speaking of kids real quick, if you can give us a quick, you're in this field, right? And if you were turning 17, again, and you were thinking about college or whatever. What would you kind of tell yourself to get into now, with all this stuff you see?

C

Cynthia Hutchinson 21:56

So it's a good question. I don't know, I've actually encouraged my one son to go into robotics, because I think that's a good fit for him. I think that AI is exciting. I think AI when you look at the breadth of AI, if you look at it as something as simple as, what kind of cars should, I'll pick Ford, what color car, what kind of car should Ford make next year? When you know resell, I have a yellow car, bright yellow car, resell and yellow and green cars is much higher the resale and gray and silver cars, they sell a lot more gray and silver, but they make a lot more gray and silver. So first, at what point can you start to analyze things that are very practical for industry through the use of AI to actually find out, the AI now comes instead of just coming to find out what new car prices are, find out use car prices through three or four different avenues, aggregate that data, pin it down. So I think for people who want to be creative, I think AI does not lack creativity. I think it's an exciting creativity field. So I would probably recommend that.

E

Ed Clemente 22:56

Well, yeah, or ethics, yeah, because there's less people going into it. The other thing, too, is that I think that I should have mentioned this earlier, but you're also doing something with Apple, I thought it was kind of interesting, too, because you just mention that real quickly, I should have brought it up a lot.

C

Cynthia Hutchinson 23:13

This is a plug for Michigan, and specifically Detroit too. The Apple Developer Academy only has one U.S. location, and that is in Detroit, Michigan. So we had a chance to go there and see what they're doing. And they are doing one of those desperately needed things, which is you know, we see people left behind. You're hearing about high demand, great jobs. And then yet you're seeing a lot of people don't get caught into that. This is an opportunity for people with no training to come in and start it, base zero, Apple takes the people as they get them, they want them to have a work ethic and show up. And then they teach them to become adept at Apple

and become developers. And it's been a very exciting opportunity to get young people started in technology who might not otherwise have had the chance. So I kind of love the Apple program.

E

Ed Clemente 23:59

It's really good. Yeah, you know, and then I meant to ask it earlier, but I know we had you have so many different things you guys are doing. I want to just thank you again today for doing the show, Cynthia. Cynthia Hutchinson, CEO of the US Center for Advanced Manufacturing. But also I know that this is probably one of the more exciting organizations in my lifetime, I think that has come around in Michigan, especially because of your broad base versus just sort of like in a silo kind of thing, which a lot of times Michigan does it that way. But congratulations. And hopefully you'll keep that pedal to the metal and keep going. But thanks again for doing the show. [Thank you, Ed. Have a great day.] Join us next week where guests will be Lydia Michael, Blended Collective, and author, and Kevin Ketels, marketing and global supply chain management at the Mike Ilitch School of Business at Wayne State University.

A

Announcer 24:53

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