

Ep.2.32 - Francisco Betti

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SPEAKERS

Announcer, Ed Clemente, Francisco Betti

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 your host, Ed Clemente, and today we're very fortunate, I mean that sincerely. I've had a chance to talk with him several times now, with Francisco Betti of the World Economic Forum. He's the Head of Advanced Manufacturing and Production at WEF. Congratulations, and welcome to the show, Francisco.

F Francisco Betti 00:49

Well, thank you, Ed. Thank you all for for having me today.

E Ed Clemente 00:52

And he said I could call him Fran, so I just want to make sure that [bsolutely] yeah, and you know, you're probably our first guest ever from Europe, as, as well as just anyone outside this sort of North America. We've had a couple of Canadians, but so this is really exciting for us as well. And obviously very exciting because of the World Economic Forum, and it's got such a

great legacy and history. And I've been doing some research on it, but do you want to just tell people rather than what you do for sort of like, quick, what do you think the World Economic Forum is and about?

F

Francisco Betti 01:31

Absolutely. And what you should note is that we are an international organization for public private cooperation. What that means is that we bring together businesses, government, academia, and civil society, to focus on some themes, challenges, issues that that as a global society we are facing today that require high degrees of cooperation, if we want to, if we want to address them and move the agenda forward. I'm specifically responsible for our work on the future of manufacturing, advanced manufacturing, you can call it Industry 4.0, but also the implication that that has some broader value chains. And in particular, looking at how through technologies, companies working in partnership with governments, universities, and civil society can unlock value creation, we talk about value creation is of course, efficiency, productivity and growth, but it's also innovation. It's also worth engagement, and also important sustainability, which is a priority nowadays.

E

Ed Clemente 02:36

Yeah, and I mean, just from someone that's worked in all three fields of NGOs, and with government and with private sector, all of them have sort of their own baggage and advantages, you know, where people, you know, that's why it's good that you bring the three sort of big sectors like that together, along with higher education, I think as well.

F

Francisco Betti 02:59

Yes, and I think the forum, it's such an amazing organization. I mean, I was in consulting before, it a pretty dynamic space, as you know, rightm and move to the forum 70 years ago, and I found an organization that moved as fast as the private sector. But it does that by having the ability to bring to the table all the right players and to find the the common speed, in which we need to move forward together. To be able to move forward in a certain direction to be able to address the agenda on a on a given theme or, or specific area or challenge. And that's, that's pretty unique. I think that we are, you may have heard about the big events that we that we organized throughout the year, of course, Davos, it's a very famous one, but the real magic happens through the different platforms and initiatives that we that we incubate we'll run throughout the year and around which we engage all stakeholders of society.

E

Ed Clemente 03:56

Yeah, and as an American, we call it Davos but you said it the correct way because that's actually a region actually in Switzerland somewhere, a city right?

F

Francisco Betti 04:05

It's a beautiful setting in the in the Swiss Alps, a by the way, we we as an organization that are

it's a beautiful setting in the in the Swiss Alps, a by the way, we we as an organization that are based on headquarter in Geneva, with offices all around the world but mainly headquarter here in Geneva, but Davos is the beautiful mountain city and it is more than a village, where are the annual meeting take place every year.

E Ed Clemente 04:25

And you're in Geneva today, correct?

F Francisco Betti 04:27

I'm in Geneva, in Geneva today joining you from Geneva, yes.

E Ed Clemente 04:30

And we should also put a plug in for Automation Ally and Tom Kelly, because that's how this sort of how you and I kind of first started connected right?

F Francisco Betti 04:40

Indeed and I should share with you that the first time I mean we have a fantastic collaboration with Automation Alley, we have been working together for there for the past five years and we will get into what we what we are doing now together and the journey further we are driving but we met with Tom five years ago, I think it was back in 2017, 18, if I'm not mistaken. And yeah, we ran into each other in Ann Arbor. I mean, we were introduced by a contact and friend, who was a professor at the University of Michigan. And and since then, we started and we're able to forge an amazing collaboration that led in DC to the lounge of what we call the US Advanced Manufacturing Center, which is headquarter in Troy, Michigan.

E Ed Clemente 05:31

And I think you also had somebody stationed with you in Geneva to, for a little bit too.

F Francisco Betti 05:38

Cindy Hutchinson was with us for almost, I think over a year, she spent a year in Geneva. I mean, she works for Automation Alley, she was sitting in with us in Geneva for for a year. And now she's the head of the US Advanced Manufacturing Center, which we are driving in collaboration with with Automation Alley.

E Ed Clemente 05:56

And we should also mention just a little bit, but what is your sort of working definition of what industry 4.0 is?

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Francisco Betti 06:07

I think it's the blending of the digital and physical spaces in the industry ecosystem. It's the ability to leverage technology to make operations manufacturing operations, but but but also supply chain, more intelligent to inform decisions in real time, but also to take transformation, the transformation of operations beyond just efficiency and productivity. What we are seeing more and more is that through Industry 4.0, that we also call advanced manufacturing, smart manufacturing, intelligent manufacturing its called in different ways in different parts of the world. But it also refers to this combination of software and hardware technology that is allowing manufacturing companies to transform their operations and look efficiency, productivity, agility, flexibility, by the way, all that makes up resiliency, which is pretty much needed in current times. But in addition to that, it is helping the law of innovation. We have seen manufacturing companies, you know, transforming bottom up, you know, their operations, creating a digital thread that connects their value chains and allows them to enable new customer experiences, to bring innovation around business models, and the way in which their products and services are provided and used. It also brings the ability for companies to meet their CO2 reduction targets. I mean, we are seeing that because of Industry 4.0 for the very first time, sustainability does not come at the expense of efficiency. You know, once you are adopting technologies that are helping you optimize the shop floor, one of the immediate impacts that you have is that you start using energy in a smarter, more efficient way. You start consuming less water, less raw material, you can track and trace the products that you are making so that you can start thinking about reuse and recycling remanufacturing. And then finally, I think what is extremely important is that it's making the lives of the operators much easier. You know, it's allowing them to focus on valueadded activities versus repetitive, dangerous or boring tasks. It is making manufacturing more attractive for you know, and to new generations, which is also another another important rarity for manufacturing companies to be able to attract talent. So I won't say these the solution to everything, but it's a critical driver of the transformation that manufacturing companies are going through now to be more efficient, more resilient, more innovative, and to have a positive impact on environment and society.

E

Ed Clemente 08:48

Yeah, in fact, I've talked to some other guests where they almost think of it as like as a democratization sort of technology somewhat. So that Michigan, obviously we're loaded with small businesses that do a lot of different parts for different manufacturing processes, but they can leapfrog versus sort of that sort of more time consuming ways of tool and die work or before or whatever, that they can move. And I think also, one thing you sort of touched on this is from my old professor in college was, they would always say that government provides legitimacy, private sector provides urgency, and somewhere in the middle is how we get sort of efficiency, right? And I think that's kind of what you're touching on a little bit, right?

F

Francisco Betti 09:39

Absolutely. Absolutely. And I mean, you were talking about the potential that these combination of technologies have not just for big companies, but also for for SMEs, right? We

have seen small and medium-sized enterprises you know, the hacking traditional smartwatches and using them to get real time alerts from the machines on the shop floor right in order to inform real-time maintain and decision so intervention and sort of, I think it has a lot of potential for both large manufacturing companies, for SMEs, Tier Two, Three suppliers and most important, it brings through a new degree of connectivity, it brings the ability to create a digital thread that helps you connect with your suppliers with your customers, and start interacting with them in new and better ways. So it's not just about optimizing the driving efficiencies or the at the factory level, but it's about you know, making your entire supply value chains more efficient, more productive, and bring that real time that mentioned that is that is critical to be able to anticipate and control.

E

Ed Clemente 10:40

And you're doing this globally, I mean, obviously, you have a direct partnership with Michigan, but you personally, as part of your job, right, you do this around the world, right?

F

Francisco Betti 10:50

We we have a we operate at a global level, we have a global footprint. We are working with companies from all across the board. And I think that what we are doing, you know the world that Automation Alley is leading, which is the US Center for Advanced Manufacturing, in collaboration with us, it's it's an amazing mechanism for us to take the global agenda to the US and say, so what for some of these global trends in order for US manufacturers, but at the same time, to source the evidence of all the amazing things that are happening across the US and in Michigan, and bring that to the global agenda and share that with the global community. It is creating a pretty amazing global to local loop, which is pretty much needed in current times and reflects the weight in which also, value chains and manufacturing companies are evolving. I mean, you can talk to every global manufacturing company, they will tell you, we are global companies, we are operating globally, but we're all reinforcing our local manufacturing ecosystem. So with the launch of the US Advanced Manufacturing Center, the work that Automation Alley is leading that front, I think we were able to create that dynamic with the US, which is which is extremely exciting. And I should say, Michigan, it's an amazing location for for doing so. What I mean, you combined, you know, the the history, I mean, when you think about US manufacturing, you immediately think about of course Michigan because for the history, the tradition, the know-how that you see to have at the state level, and at the same time, that ability to connect with other states, you know, to take on on broader ambitions at the national level. And combine that with all the transformation that is taking place, led by the large companies that operate in the, at the state level, but also I should I should mention all the amazing work that our Automation Ally, has been doing for the last 15 plus years. I think that if there is one flag that Automation Alley has been carrying is the flag of Industry 4.0 and the way in which they were able to help companies at all levels and the full sizes, change mindset, embrace transformation, bring the evidence to the table to accelerate and reform the digital transformation journeys. It's been quite amazing. And it's one of the other reasons of why we are doing this together with them.

A

Announcer 13:14

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E

Ed Clemente 13:30

And I think that sort of the challenge of any sort of sort of advanced economy, that they sometimes have their biggest competition from competition, sort of from developing countries, because they didn't maybe have to unlearn a lot when they could, like, cell phones is obviously a good example. Like, you didn't have to build entire, you know, telephone lines in certain countries, just because people went right to cell towers, right? And same thing for manufacturing, you can jump right into advanced manufacturing without unlearning a lot of other things, sort of.

F

Francisco Betti 14:05

Absolutely. And I think I think just Ed, one sword and sensitivity it's important to flag is that some of the transformations that we are seeing now, you know, the latest trends about reshoring new shoring, they are not really new. They were accelerated by the pandemic and by the impact that that have that that had on your not only your value chains you used to operate, but this started much before. I mean, COVID-19 brought sort of a perfect storm for manufacturing supply chains, but it's a storm that was forming, you know, in the horizon already, right? So, companies even before COVID, they were starting to think about how through technology, Industry 4.0 technologies, we can be closer to customers. We can start providing customized products, which is what consumers are demanding more and more. How can we reduce our CO2 footprint, right? So I think it's the it's a combination of mega trends and different evolutions, you know, not just on the technology side, but also on the mindset and the cultural side, that has led to the rethink. And we don't know yet what that will take us, but the rethink and redesign the redesign of value chains.

E

Ed Clemente 15:19

Yeah, that's an excellent point. Because I see a lot of that through a lot of our guests. How, you know, you heard a little bit about onshoring before COVID, but it's not so much onshoring anymore as much as vertical integration. And the exchange, I just heard, you know, with electrification in Michigan, how we're, someone described it, like if Henry Ford came back and saw an internal combustion engine today, he would say, yeah, I would know this exactly how it works and he could fix it maybe, right? But now you really are going through a major sort of propulsion unit, that's very different. And how we have to almost change all of our manufacturing structuring because of advanced Industry 4.0, like you said, so. So it's kind of the circularity of what you were talking about before.

F

Francisco Betti 16:12

And you mentioned a key word for that, which is vertical integration. I think that that's, that's one of the big paradigm shift that we are seeing, right? We are moving away from from distributed and that was, you know, from just in time to trying to integrate vertically as much

as possible. I mentioned Ford, like Henry Ford, if you look at how he had designed, you know, his his manufacturing footprint, I mean, he was pretty much vertically integrated, right? I think that even the coal that was used to power the plants, you know, it was coming from from mines that that were owned by Ford as well. So I think that I mean, I need to you need to verify those facts. I mean, it's something that that I read recently, but you know, vertical integration is not a new trend, it just, it just now, it's coming back as one of the solutions to many of the problems that manufacturing companies need to solve for simultaneously.

E

Ed Clemente 17:05

He actually even bought a big chunk of the Amazon to do his own sort of tires, through rainforests, rubber trees, right? And, I mean, so he really was into it, he was also building soybean cars, for example, you know, he was trying to grow his own metal get out of metal even. But, you know, a lot of that stuff might come back to I mean, it's not far off to think of cellulose cars eventually in manufacturing. And let's get you know, you have a unique sort of Switzerland accent. Let's say it's not really Swiss, you're actually from Argentina. And, and you came, I mean, I want to talk about so many things you've done. But let's talk about your path a little bit, how did you end up getting to the World Economic Forum, because you've got some fascinating things you've done priority.

F

Francisco Betti 18:02

Thank you Ed, and I indeed grew up, I was born and grew up in Argentina, I came from an Italian family in which the Italian culture was very present. I therefore went to an Italian school and from there, of course, you know, the school was behind me, I always had this disruption of, you know, staying in Argentina or maybe moving to Italy to do university studies. And so what I did, I move on to Italy, I spent over five years there. And then I moved to Switzerland, where what I started first working in consulting, I spent several years working with PwC. And then a great opportunity came up with the World Economic Forum. And that was back in 2015. If you look back back in time, 2015 was before the big theme of the Fourth Industrial Revolution, Industry 4.0, we're at the very beginnings, right. And we at the forum, realized that something was changing in the world of manufacturing, that value chains, were reaching a point in which you know, new configurations may be going to emerge. And and we started challenging, you know, the ongoing thinking at that time. And as a result of that, we ended up you know, mounting it was at the time a tiny project that then became an initiative and to date is one of the 16 pillars of the work that we do at the forum. As I mentioned before, we have the the pillars that we call platforms, which are the big thematic areas in which we operate and through which we convene all stakeholders from society to thrive, not just the conversation, set the agenda, but reelection.

E

Ed Clemente 19:41

Yeah, just touching on just, I'm going to still get back to your background just a teeny bit more, but I think that when I said the democratization say of technology, it's almost sort of parallel sort of like blockchain, how it sort of deledgering business where or before you really might not have the same sort of monopolies or oligarchies, you know, of business because of the ability to change over quickly, or to physically locate your footprint somewhere else, kinda right?

F

Francisco Betti 20:17

Absolutely. I think that, you know, that if you, you know, it's, it's, we're talking about the democratization of manufacturing. But I think that what is more exciting is how for example, the shop floor is being democratized through technology, you know? We are empowering or we are up to date, able to empower operators to make better decisions to make more informed decisions, right, to configure their work environment and space in the world that is more efficient for them. And by the way, that can be different from operator to operator, right? We are able to support diversity, bringing into the shop floor, you know, people with different abilities. So it's, it's quite, it's quite exciting what what you can do. And when I look at myself as well, I think that you know, and my path over the past years, what we're able to do in the pandemic, you know, technology is playing a major role and is transforming the way in which we live our life, which is, which is extremely exciting. I think that what we need to know, and we probably shouldn't forget is that technology is not a given. We can influence how we shape and use technology, right? And there are different ways in which technology can be used. Manufacturing is one of those areas in which technology is playing a major role to make factories a better place and more exciting location. And I mean, we could not have a better time to probably be in manufacturing than today.

E

Ed Clemente 21:44

Yeah, it just to put a plug in how we sort of met, because I met Michigan in the MEDC but you did a big agreement up at Mackinac Island recently with Automation Alley but also the MEDC was involved, you want to explain kind of what you guys agreed to up at the island?

F

Francisco Betti 22:04

Absolutely. And we were there with with the Governor, we were there with Quentin who is the CEO of the MEDC, we're there with Tom Kelly with Cynthia Hutchinson, who is now the Head of the Center, but what we did is launching what we call the US Center for Advanced Manufacturing, which is sort of an extension of our global platform for the US in the US, that is helping us, you know, to create this global local connection that is helping us take the global agenda to the US to Michigan, but also provides the mechanism for Michigan and the US to show, you know, all the amazing transformations that are undergoing, you know, with the global with the global community, in the center is led and driven by Automation Alley in collaboration with the forum. And MEDC is one of the main sponsors and that has helped make that center a reality.

E

Ed Clemente 22:59

Yeah, and, you know, as we discuss all these things, it also, you know, I'm hoping people will listen to this podcast, especially folks say in Michigan, but even around the world, you know, it's a, it's a nice thing about the internet, is that that they should be realizing this is sort of a great financial advantage too, that you can get this free information on how to move your company. So if a small business person is listening, this is not something complicated, they'll actually walk you through all these things, right?

F

Francisco Betti 23:32

You're absolutely right. One of the things that Automation Alley is doing is that, you know, they are democratizing access to information, right? They have the ability, through the collaboration with us through the work that they are doing, you know, to get access to latest trends, latest information, you know? To create different experiences for all sorts of manufacturers to understand and get in touch with what the future of manufacturing is likely going to look like and be able not just to inform the decisions, but also to try to anticipate, you know, and accelerate the transition towards advanced manufacturing, Industry 4.0. And that's really exciting. That's one of the major roles that these This center will, will play.

E

Ed Clemente 24:15

And as we get closer to the end, unfortunately, but a couple of things, obviously, you probably speak what four or five languages, I'm assuming?

F

Francisco Betti 24:25

I do speak four languages. And I'm trying to learn German, which is a, which is a big challenge.

E

Ed Clemente 24:30

Yeah, it's well, it's closer to English, but not much.

F

Francisco Betti 24:34

It's a beautiful language, but it, yeah, it's that's the last one I'm trying to believe.

E

Ed Clemente 24:40

It's not a romance language like ours, both Italian and Spanish, right? The other things too, if you've been to like how many countries have you been to, because you've did a ton of work in Africa for the World Health Organization and all these other places, just fascinating.

F

Francisco Betti 24:56

Yeah, so I had the privilege to travel the world in my previous capacity as a consultant. I mean, I spent a significant amount of time in, in in DRC., in Congo, in Ivory Coast, you know, traveling traveling in Africa at large. [I] spent significant amount of time in Asia, we do have an office in China, we do have presence in Japan, we work a lot with India, we have a lot of farmers from India, we work with different Indian states. Of course, a lot of time spent in the US and here in Europe. So I think it's yeah, it's it's been a fascinating ride and journey. And I think, you know,

traveling really opens up your mind and gives you the ability to understand on one hand, you know, how privileged we are in certain locations, but at the same time, you know, how much we should adopt a responsible role when it comes to the critical missions that we drive in our organizations and the world we are trying to drive to make sure that you know, no one is left behind. And I think that that's great to get as well.

E

Ed Clemente 25:59

Yeah, what was it just a tremendous foundation for you to come into this platform at the World Economic Forum. Because, you know in a lot of the countries you've been to, that this sort of Industry 4.0 is going to help those countries out too. Talk about democratization, they'll be able to really change sort of what they do in their countries to help push more people to like in the middle class, affordable incomes, right?

F

Francisco Betti 26:24

It comes with opportunity, definitely. And we are seeing already preschool, because of Industry 4.0 are able to leapfrog right? it is challenging our traditional assumptions, you know, towards economic development. You may not need to go through all the same stages in which you know, through which some of the countries that are leading manufacturing nations, went today. You know, you could jump straight into distributed manufacturers, right? Established micro factories in very remote locations in this planet. And that's extremely exciting. I think it brings a lot of opportunities. What is important to understand we are discussing that with Brazil, with Mexico with India, with Canada, with Italy, with Switzerland, is that the approach and the way the world's Industry 4.0 can be tailored based on the needs of each country, Right? Once again, technology is a tool that it's available, it's ready, because rates, new levels of development and maturity, it continues growing at an exponential rate. The way in which we use it has to be adapted to the needs of every sector, every geography, and that's the way to make the most out of it.

E

Ed Clemente 27:36

Yeah, it's actually very encouraging. As someone you know, it's always better to have, as a former State Rep, I always rather teach people how to fish and give them fish, right, so that you and this is a great opportunity to teach people how to do things more for themselves too. The last couple questions. And I will put another plug in for your uncle. I was trying to get a picture of the Argentinian Pumas, the rugby team, but your uncle played for the national team, Right?

F

Francisco Betti 28:09

He did, but that was back in the 70s. But he, I know you're a fan of rugby, I love rugby as well. And he used to play for the Pumas back in the 70s, I think mid-70s, yes. It's a very popular sport in South America.

E

Ed Clemente 28:23

Ed Clemente 29:13

I know. And I know that was a bit of a segue, but I had to get a plug in for your uncle. The, because a national player is a big deal. The other thing is, this is your last two questions. But if you could go back and talk to the young friend back in high school, what advice would you give him today to go into as a field?

F

Francisco Betti 28:46

Well, I would say you know, we talk about traveling and I did say, would really marked me and define who I am today, was simply traveling, I did a most difficult decision, you know, to leave what I was leaving with my family at the age of 18 to say, okay, I'm gonna go into the university abroad and abroad at the time was 14,000 kilometers away from home, right? It was a time in which yes, we have phone communication, Skype and other online platforms were just emerging, but we didn't have you know, WhatsApp, FaceTime and all the tools we have today. So I think that in order to have the care received, go out and see as much as you can, because that will really open your min. It will help you then define wh,o what you can do and who you want to be. So that's one advice again, to if I were to go back to high school and talk to my friends there, that could be one of the things that are good advice everyone to do.

E

Ed Clemente 29:41

Yeah, nothing shatters prejudice like travel. You know, you really start seeing everything firsthand and makes you really appreciate everything and to become open minded just in general, more so, when you see how fortunate you are where you grew up, and how less fortunate people are and you just really makes you realize how important you were to grow up wherever you grew up sometimes. The last thing is you've only been to Mackinac Island, but how did you like Michigan?

F

Francisco Betti 30:10

I love Michigan. I love the island, I wish I could go back on vacation next time, it's a beautiful place. I mean, you, you know, you go around the island and sometimes you don't even realize if you are in between the two lakes or if you're in the middle of the ocean, you know, it's a mix of, you know, you could be in the assembly in the tropics, but you're still in Michigan, it is fascinating. I mean, and driving up the, you know, the peninsula, you know, seeing how the landscape changes, it's gorgeous and beautiful. You know, being on the road in a random place for lunch or dinner, you know, to have lovely and amazing locations. Its such a great state and location.

E

Ed Clemente 30:48

The biggest advantage for us for water is it's not salty, and there's no sharks.

F

Francisco Betti 30:57

That's a great one. We should go sailing and swimming next time Ed.

E

Ed Clemente 31:02

Anyway, I'm gonna let you go, but I'd love to have you back on again maybe in a little while when you've, you know, you've gotten further on your journey with with the organization and just in general, how you've been progressing. But we can talk about that in the future. But anyway, our guest again was Francisco Betti, he's the Head of Advanced Manufacturing and Production for the World Economic Forum in Geneva, Switzerland. And I know you, you stayed late for u,s our time differences, but we appreciate you doing this today friend, you've been a great guest too. And I really liked meeting you.

F

Francisco Betti 31:35

Delighted to be here with you. And thank you for for inviting me.

E

Ed Clemente 31:38

Hopefully we'll get you back too. Join us next week where our guest will be AB Ghosh, he is the chairman and CEO of Hemlock Semiconductors, a semiconductor manufacturing operation in Michigan.

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Announcer 31:53

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