

Intro ([00:03](#)):

Welcome to TEK TOK Digital Supply Chain Podcast, where we will help you eliminate the noise and focus on the information and inspiration that you need to transform your business, impact supply chain success and enable you to replace risky inventory with valuable insights.

Join your TEK TOK host Karin Bursa, the 2020 Supply Chain Pro to Know of the Year with more than 25 years of supply chain and technology expertise, and the scars to prove it, Karin has the heart of a teacher and has helped nearly 1000 customers transform their businesses and tell their success stories. Join the conversation, share your insights and learn how to harness technology innovations to drive tangible business results. Buckle up it's time for TEK TOK powered by Supply Chain Now.

Karin Bursa ([01:09](#)):

Welcome supply chain, movers and shakers! This is Karin Bursa, and I want to thank you for tuning in today to TEK TOK. This episode is going to be interesting. We're going to bring together two important initiatives that are happening in the industry. Digital supply chain, which is what we do here on TEK TOK, combined with important opportunities around sustainability. So, bringing together digital supply chain and sustainability and to share his perspective with us is Tom Raftery, who is the Global VP, Futurists and Innovation Evangelist for SAP. Tom, it's great to have you here. Please tell our audience a little bit about yourself.

Tom Raftery ([01:57](#)):

Thanks Karin. Thanks for having me on the podcast. I really appreciate the invitation. My name is Tom Raftery. I am originally Irish, now living in the South of Spain, just outside Seville. I work for SAP. I have what I think really is a cool title, Global VP, Futurist and Innovation Evangelist that I made up myself. I was recruited into SAP in 2016 as an IoT evangelist and then shortly after. And that's because I had a background in IOT and energy that kind of holds space. I was a former industry analyst in that space. So when I when I came in to SAP, I was an IOT evangelists, but shortly after I joined SAP, the responsibility for IOT was given to another group within SAP.

So, I approached my manager and I said, you know, Thomas, the IOT function has changed organization. I don't suppose I could be calling myself an IOT evangelist any longer. He said, I guess not. And I said, "what if I call myself an innovation evangelist?" And he said, that's fine with me. So suddenly I was an innovation evangelist. And in fact it made more sense really IOT in 2016 was the new hotness. So it was a cool title to have, but of course, nobody was coming to SAP and saying, can I have an IOT please? IOT in and of itself is useless because you need to have that whole suite of innovation portfolio around IOT. You need to have the comms, you need to have the analytics, you need to have the big data, you know, to make sense and to analyze and to throw AI at it and throw machine learning at it.

Tom Raftery ([03:43](#)):

And, you know, so without all those other innovation topics, IOT by itself is useless. So it was actually a more accurate job title. So yeah, innovation, evangelist and futurist as well, because a lot of what I've always done is look at what's happened in the past, look at where we are today and then draw trend lines forward and say, okay, well, that means in the next # years we're going there. And, uh, that was a big part of what I was doing as an industry analyst. And it's a big part of what I do in SAP today as well.

Karin Bursa ([04:20](#)):

Tom, do you take a crystal ball with you everywhere you go? I mean, as a futurist, always looking for good stock picks or, you know, what I should expect in the immediate future.

Tom Raftery ([04:32](#)):

Stock picks, not so much, I have a poor enough record. And I'm absolutely useless at finance. I don't have that finance gene, so I don't own any stocks. I don't dabble in them. The only stocks I have are SAP and those are because they are given to me every month - you get a small portion or an ability to buy them. Uh, so those are the only stocks I actually own back in the day when we used to use checkbooks, I used to say, I can't even balance a check book.

Karin Bursa ([05:20](#)):

Tom, our TEK TOK listeners should know that you have a well-regarded podcast around digital supply chain. Tell us about that. And then I want to talk about the show you just introduced.

Tom Raftery ([05:40](#)):

Thank you. So, yeah, I have the Digital Supply Chain Podcast, which I started in June, 2019. But the actual, very first interview episode was with a then colleague called Marcel Follmer. And I think if I remember correctly, I think it was the 3 July, 2019. So, the podcast has been going since July, 2019, and for the first six or eight months or more, it was one episode every two weeks. And a lot of that was down to the fact that my role at the time meant I was doing a huge amount of travel in 2019. I did about 40 keynotes in 38 countries. So pushing out an episode every two weeks was challenging.

Tom Raftery ([06:36](#)):

And a lot of the time the interviews were done while I was sprinting between terminals and airports going for tight connections, it was crazy stuff. But then the pandemic lockdown in February 2020 did away with normal travel. So I invested a bit in hardware and software for podcasting and video, and I upped my game. And now the Digital Supply Chain Podcast is putting out two episodes a week instead of one, every two weeks. It goes out every Monday and every Friday at 6:00 AM CET. So, if you're Pacific, that's the night before a Thursday, 9:00 PM Pacific. It goes at 6:00 AM Mondays and Fridays. And it's an interview style podcasts like TEK TOK where we talk about all aspects of the supply chain and how it's being digitized, everything from SAP. We talk about designed to operate, the whole scope of the supply chain.

Tom Raftery ([07:35](#)):

So, everything from the design to the plan, to the make, to the deliver, to the operation of the app. The fact that we include the operation means you're looking at things like predictive maintenance and even kind of outcome economy where you're doing product as a service. And we cover all of that in our software and discuss the capabilities in the podcast. Having said that the podcast is not SAP focused it's highly unusual, that you would hear SAP product names used in the podcast. It's more about best practices and trends and where things are going in supply chain and the best way to do things.

Karin Bursa ([08:16](#)):

Well, congratulations on the cadence and publishing more frequently! I'm sure that your audience really appreciates it.

Tom Raftery ([08:26](#)):

We hit episode 100, just a couple of days ago. [inaudible] tyranny of round numbers, I guess, but a major milestone.

Karin Bursa ([08:36](#)):

I'm a big one for milestone. So that's a nice one! Let's talk about your new offering in the podcast marketplace. What's the focus of the new Climate 21 podcast?

Tom Raftery ([08:51](#)):

Sure. I started a new podcast December of 2020, called Climate 21. Isn't a reference to the year 2021. It's a reference to the 21st century because it is a climate focused podcast. And the climate problem we have is not one that's going to go away in 2021. It's one that is going to be with us for the majority of this century. So it's also a reference to SAP's Climate to 21 program.

SAP has this program called Climate 21, which is one where we are building in the ability to track your emissions across your entire business process portfolio. So, every single thing you do right now, you can calculate the financial implications of doing all the stuff you do using our software amongst other things. But with the Climate 21 initiative, it means that soon you'll be able to calculate and report, not just the financial implications but also the climate implications of everything you do in your organization.

Tom Raftery ([10:05](#)):

And of course, this has huge implications for supply chain because you can then start looking down through your supply chain and choosing which suppliers based on their carbon implications for your supply chain, as well as the financial implications of choosing a particular supplier. But that's, that's the SAP Climate 21 initiative, the Climate 21 Podcast takes its name from that. The focus of the podcast is to surface and showcase successful climate emissions strategies and stories from our customers, from our partners, from our competitors, if they're game and showcase them so that we can educate everyone on the ways to get your climate emissions down and inspire people in ways to do it. If they come across ways that it hadn't occurred to them, for example.

Karin Bursa ([10:56](#)):

Absolutely. Supply chain plays a critical role in sustainability because everything from how a product is designed, to the materials used, the packaging, production process and the movement of those goods to market represent sustainable opportunities right through to disposal or reuse of those goods in a circular economy.

Tom Raftery ([11:28](#)):

Design is hugely important. And it's interesting that you say packaging because a couple of times when I've done keynotes, talking on topics like this, you know, I asked the audience, okay, put up your hand if you've got an Apple device, like an iPad or an iPhone. Depending on where I am, 50 to 80% of the hands go up. And, then I'll say, keep your hand up. If you still have the box that the device came in. Almost all the hands stay up. And it's because to your point, the design of the packaging that Apple puts into its product is so good people hang on to them. Uh, you know, if I said that about almost any other company, most of the hands would go down, but it's just a thing with Apple. They design their packaging so well, people keep it. Maybe they're selling it on when they're getting a new device to a neighbor or a friend or a relative. And they give it with packaging very often.

Karin Bursa ([12:31](#)):

I agree wholeheartedly. It's interesting that you bring up the Apple packaging, because I think I've kept the Apple packaging. The boxes are just beautiful, right? It's just a well design. There's not a lot of waste and the box feels good, like quality. It's very elegant.

Tom Raftery ([12:47](#)):

And you can see as well that Apple says within their packaging, that it's sustainably sourced, uh, fiber or whatever it is. So they have a great reputation in this space.

Karin Bursa ([12:58](#)):

For the record, I also keep all Tiffany & Co. packaging – just in case anybody's wondering. It is beautiful as well. People love to hold onto the Tiffany bags and boxes. Let me ask this question. Tom, are there any particular industries that you feel are leading the move to greater sustainability and supply chain initiatives coming together?

Tom Raftery ([13:35](#)):

Good question. And it's a hard enough one to answer. I think if we look at sustainability initiatives and, you know, I think the technology industries are doing a huge amount. And I had, for example, the Chief Environmental Officer of Microsoft on the Climate 21 Podcast, just before Christmas, his name is Lucas Joppa. And he talked about some of the things that Microsoft are doing. It was really impressive because they're pretty much the gold standard of what you can do in this space.

For example, Microsoft rolled out a carbon fee within their organization for anything you want to do. So, if you want to purchase office furniture, not only does it cost you the financial cost, but there's also a carbon fee associated with the purchase. The carbon implication of purchasing that office furniture, creating and transporting that office furniture. If you want to take a flight, if you want to host an event, whatever it is you want to do within Microsoft as a Microsoft employee or a Microsoft group, there's a carbon fee associated with it. And that carbon fee that you pay goes to sustainability organization within Microsoft. And they rolled this out first in 2012. So they've been doing this for awhile.

Karin Bursa ([14:58](#)):

Wow, 2012. That is impressive! Well done Microsoft.

Tom Raftery ([15:02](#)):

Exactly. They've been doing it for eight years now and now they're rolling it out to their suppliers as well. So they are requiring now in RFPs, all of their suppliers to report on their carbon emissions associated with whatever they're supplying to Microsoft. Now this isn't a heavy handed approach. Microsoft, as you would expect, are going to take time to do this and go through a whole education process to do this. But the fact is it will be a requirement. I think they started doing it last year (2020). It will be a requirement for anyone supplying anything to Microsoft, to be able to report the carbon emissions associated with that. But not just that they've gone further. They've said that they are going to not be carbon neutral or net zero is a lot of organizations have set their goal to be rather they're going to be carbon negative. So they are going to emit negative carbon emissions. So in other words, they're going to suck back in more carbon than they emit during

Tom Raftery ([16:10](#)):

So much so that their aim is by 2050 to have sucked enough carbon out of the atmosphere to account for all the carbon. They have emitted to date since they started operations in 1975. I mean, wow, like I said, gold standards, the actual technologies to do this don't exist today to suck that carbon out of the atmosphere that literally they don't exist. So what have Microsoft had done to address this fact, they've set aside a billion dollars in an investment fund to invest in companies who are developing the technologies for carbon sequestration.

Karin Bursa ([16:53](#)):

Fascinating.

Tom Raftery ([16:57](#)):

And they've put an RFP into the market for, I think it's a million tons of CO2. So, you know, they're making the market and they're helping organizations develop the technologies through, through a billion dollar investment fund that they've set up. It's an incredible trifecta. So you asked which industries are doing the best in this. I would have to say Microsoft is the gold standard in that front.

Karin Bursa ([17:26](#)):

That is really, really impressive. So is CO2 measurement the "gold standard" as an impact measurement or are there other measures of sustainability that our audience should think about?

Tom Raftery ([17:40](#)):

Absolutely. There's this whole ESG topic that I've addressed in a couple of the Climate 21 podcast where ESG stands for environment sustainability and governance, and it covers everything, absolutely everything. And it's becoming a really, really important topic. The old CSR that some of the listeners might be familiar with corporate social responsibility (CSR) is going away. And it was very much something that was far many organizations done, uh, as part of the marketing organization. So, you know, it was, it was more a PR exercise than an actual sustainability agenda. Not for all companies. Some companies were very genuine about it. I have to say. Uh, but for, for others, not so much ESG though is different because since the Paris climate accord and since 2020, there has been a shift in the investment community and the investment community, you know, the flows of capital that they control are now looking very seriously as ESG requirements and reporting from organizations because it speaks to risk.

Tom Raftery ([18:59](#)):

The investment managers and the risk assessors are very, they're not very risk tolerant, shall we say? So they don't want to be putting money into places where there is risk and carbon is seen increasingly as a risk, but your question was more around, is it just carbon? And no, it is the whole gamut of ESG, which is everything from human rights, labor relations, water and more. Have you got slavery in your supply chain? Are you using conflict minerals? There is no standardized way of reporting some of these things as yet. So this is going to be a huge thing moving forward. There will need to be standards agreed on the way we have standards for reporting financial reports today. There's still no agreed methodology of reporting on ESG, even across industries, because some industries it's completely, some of the ESG things you would talk about are completely irrelevant, whereas they're highly relevant in others.

Tom Raftery ([20:13](#)):

You don't think of, for example, child slavery in the car industry. But you might in the mobile phone industry because of some of the tantalum and conflict minerals, for example, that are used in mobile phones, but that's less of an issue in automobiles are in, you know, the manufacturer of eyewear, you know, any of these kinds of things, you know, so it depends from industry to industry, what things you want to measure or are responsible for measuring, but it's very much up in the air right now and is becoming increasingly important for organizations. Because as I said, the investment community are looking at this more and more. It's coming more and more under scrutiny.

Karin Bursa ([21:05](#)):

Well, let's come back a little bit to supply chain and what supply chain operations are doing around sustainability and green initiatives for their businesses. Our TEKTOK listeners may not know you are really passionate and extremely knowledgeable about the transportation industry, Tom. Obviously there's a huge transition underway going from fossil fuels to electric vehicles and other modes of transport. What do you think, Tom, how far away are we from really making a transition to electric fleets for things like shipping transport and delivery of products?

Tom Raftery ([21:44](#)):

So it's happening at different paces in different regions. The shift from internal combustion engines to electric fleets. It depends on the type of vehicle, the class of vehicle we're talking about. China's well ahead of almost every other region in this, because they've had legislation in place requiring automotive manufacturers to manufacture a certain percentage of their fleet as electric. So they have access to it in many places in China, for example, their bus fleets are 100% electric today. The last time I saw the numbers, there was something like 420,000 fully electric buses operating in China. Whereas at the same time, there were something like 400 fully electric buses operating in North America. So, they're way ahead of everyone in that regard. Now, what people might be unaware that electric vehicles are significantly cheaper to operate and maintain than our internal combustion engine vehicles.

Tom Raftery ([22:48](#)):

A typical internal combustion engine vehicle has around 2000 moving parts in its drive train, all of which need to be lubricated and looked after and so on. Whereas in an electric drive train, there's about 20 moving parts. So that's 1,980 fewer parts that can go wrong. So the maintenance associated with electric vehicles is a fraction of that associated with internal combustion engine vehicles. And then there's the cost of the fuel fueling. A diesel bus typically costs, if I remember correctly 75 cent per mile, over the lifetime of the bus. Whereas it's 20 cents per mile for an electric bus. So fueling and maintenance costs for electric vehicles are a fraction of that for internal combustion engine ones. Uh, and of course, if you speak to any fleet manager, the two things that are top of mind for them are the costs of fuel on the cost of maintenance.

Tom Raftery ([23:51](#)):

Those are their two main costs. So getting them down is a big thing. Now there's still the issue that the upfront cost of an electric vehicle is still higher than the upfront cost of an equivalent internal combustion engine vehicle. But of course, if you're getting them on a lease, you're paying by month and if your monthly fuel and monthly maintenance costs are reduced significantly, then your monthly outgoing for the lease, you know, is going to be balanced out. So suddenly the whole issue around cost goes away. So we're seeing a big flip and it's going to be increasing because the number of, and the types of electric vehicles that are available in the market are increasing enormously just in the last year.

And in this coming year, there's going to be a huge shift. We're seeing a lot of what in the U S or North America are called trucks.

Tom Raftery ([24:41](#)):

For example, you know, the, the F-150 is and the Hummers and those kinds of things. Those are going electric this year and next year and the cyber truck. So those are all coming to market this year and next year. And you know, those are the biggest vehicle class, uh, at a consumer level and also a, an industry level. And those are highly, highly attractive and, and highly purchased. So those, because those are going electric, those are going to flip very fast, because again, they're very attractive. They've got massive pulling power. They've got even better pulling power and internal combustion engines, they're more powerful. So, the costs are going to come down even more. So those buses, as I've said already, the school bus fleet, is going to go electric very fast as well, because there's a secondary business possibly with school buses which are kind of unique in that they operate twice a day, morning and evening for the rest of the time they're lying idle.

Tom Raftery ([25:39](#)):

So of course these school buses have big batteries in them. They can there therefore be what's called a virtual power plant. They can operate to whether they're not moving suck in energy from the grid. Particularly if they're in an area with a high penetration of renewables and there's excess energy being generated by their renewables, they can suck that energy and then store it. And then later on in the day, for example, let's say five or six o'clock in the evening, they're back at base because they've dropped the kids home. Parents have arrived home from work, assuming we're all back at work. Again, parents have arrived back. They start putting on the heating, they start putting on the appliances for cooking or whatever. So you get that evening spike in electricity. The buses can let it, let us energy become a source. So they are a virtual power plant.

Tom Raftery ([26:28](#)):

So it's virtual power plants in the energy space are analogous to cloud computing and the technology space. It's a, you know, you aggregates lots of small sources of power into a single virtual power plant in the same way. You aggregate lots of servers into a large cloud delivered server in cloud computing. So it's the same idea. So buses are a big one. Uh, motorbikes are already there at 33% globally of motorbike sales today are fully electric. Cars are obviously a big one as well. Trucks, vans, all those kinds of things. So they're all going electric and it's all down to the economics. I mean, if you think of school buses, do you want to have your kids going on a bus that is diesel and it's emitting fumes, and we all know how bad those fumes are for developing lungs, particularly while kid's lungs are still developing.

Tom Raftery ([27:23](#)):

And the damage that's done by the fumes over the back of a diesel bus are horrific. Whereas, you know, nice, quiet electric bus, no fumes. I'd be happy to put my kids on one of those. We're seeing all the trucks are going to go electric as well. Forty ton trucks will be electric in the next two or three years. And they're going all out on fully electric because the technology is there now to do the 40 ton 18 Wheeler trucks as full electric trucks, Tesla to have their semi et cetera.

Tom Raftery ([28:11](#)):

So that's going to, they're going to be coming to the fore in the next two, three years. And, we've got to acknowledge, President Biden's announcement a couple of days ago, where he said that all federal

fleets are going to switch to electric is mandated as one of his executive orders that the whole federal fleet of about 645,000 vehicles are going to go electric. And that's a significant demand signal to send to the market. Suddenly, 645,000 vehicles from American manufacturers with a specific percentage of the internal components will also be manufactured in America. So, you've got GM, you've got Ravion, you've got Tesla, you've got Ford, you've got VW from their plant and Chattanooga, TN. There are probably others. There's bound to be more as well that I've missed out on, but lots of them there anyway.

Karin Bursa ([29:17](#)):

So Tom, you're sounding more like a financial analyst to me now than at the start of our discussion today. Let's, let's talk about "finding the green in being green." Finding the profitability in directing a more sustainable business. Now, obviously consumers are willing to pay for great design. Especially when great design is also sustainable. I think immediately of Tesla for example, right? Tesla is viewed as a premium offering, one that offers unique status, styling and capabilities as a part of its brand.

Sustainability is important to investors and has become a boardroom topic with the board of directors. We've just talked an ESG perspective and forward thinking about their business over the long-term, but are you seeing this increased focus and sustainability? And, are customers willing to pay more in general for sustainable products?

Tom Raftery ([30:16](#)):

So, two things there, the first is trick you're missing out on. I think when you consider the sustainability of organizations, it also helps organizations with recruitment and retention because, you know, do you want to work for a company that gets his energy from coal-fired power? Or do you want to work for that a utility company that has coal-fired power versus do you want to work for one that operates a windmill, a farm, solar plant or something gives a nice, warm feeling about working for organizations that have the planet's best interest at heart that recycle? Or has diversity and inclusion built into their recruitment, uh, that users knew about power and have stated aims of getting to net zero and so on and so on. So that would help organizations with their recruitment, but it would also help them with their retention.

Tom Raftery ([31:18](#)):

So those that's another very important aspect. But, your question was around, "Will consumers pay more for products that are sustainable?" And frankly, I think that's the wrong question because I don't think they should have to pay more for a good set of sustainable products. I think they should have to be more for goods that are not sustainable. Because when you are being more sustainable, you are getting waste out of your operations. So, being more sustainable should lead to lower costs. Also, the cost of generating electricity from renewables is significantly cheaper than the cost of generating electricity from burning oil, gas, and nuclear. So green renewably generated electricity is actually significantly cheaper. So your electricity costs, if you're 100% renewable, should be cheaper than getting it from fossil fuels, your transportation would be cheaper as well as we've already mentioned.

Tom Raftery ([32:22](#)):

So your main carbon impacts should be cheaper. Your operations costs should all be cheaper. The more sustainable you are, your goods should be cheaper. So it's as we get more carbon pricing being included into goods and services as well, because that is coming. If you don't have it in your area already, it is coming. It should round that goods that have a higher carbon content in them are more expensive. So I



think the framing of the question is flawed and sustainable goods. As I say, in any operation that is more sustainable, you have already gotten rid of a lot of your waste by definition. So it should be cheaper.

Karin Bursa ([33:07](#)):

Noted. Tom, as we wrap up today, what one piece of advice or one recommendation do you have for our listeners today? Especially for people that are thinking about their roles in supply chain and how they can help to think and act more sustainably as they put these practices in place?

Tom Raftery ([33:30](#)):

Well, one piece of advice, Hmm.

Karin Bursa ([33:33](#)):

Inspire them a bit to give them something to think about. Like, I love the way you just reframed my prior question about, are people willing to pay more? I love that. Is there another piece of advice around digital supply chain capabilities and their roles in supply chain and how they can inspire action in their own organizations?

Tom Raftery ([33:55](#)):

I think the best thing I could advise people to do is to read more about what's happening in the space, or maybe listen to more podcasts like the Climate 21 Podcast, but no, seriously more seriously. Read more. Educate yourself more about it because it is going to be increasingly important as we've talked about already. Sustainability and ESG are now a board level topics. So, it will be coming down from above, but also it should be coming up from below as well. It should be something that your consumers or your customers are interested in. It should be something that you are interested in in making your organization better and in making therefore the planet better. So it should be something that everyone has top of mind all the time. How can I do this better? How can I do this with the less of an impact?

Tom Raftery ([34:43](#)):

Is there anyway I can change this process to make it, you know, tweak it maybe even slightly better? Should we think about recycling when we're doing this? Should we be designing this thing? So that end of life, we can take back parts of it and reuse them for the next part. You know, all of these kind of circular level thinking are the products we're using, are they made of items that can be recycled at end of life for, can we maybe if we go to something like product as a service where we are, uh, not selling the product, but giving it out, this is a whole new business model that many people are going to. I mean, everyone's heard of the kind of power by the hour that the kind of jet engine manufacturers like the GE and the rolls Royce went to other organizations are pursuing this now.

Tom Raftery ([35:25](#)):

And of course the advantage of doing this means that as the manufacturer, it is now very much not in your interest to have in-built obsolescence, which means the objects that you're designing and manufacturing must become much more sustainable because you're designing them so that they never fail. And because you now own them and you don't want them to fail and you don't want to have to send an engineers to site. Think about maybe going to the product as a service if you're not already, because it's a business model that guarantees you recurring income, which is always very nice and it's better for the planet in that inbuilt, obsolescence is no longer a thing.

Karin Bursa ([36:05](#)):

Or that you're willing to take responsibility for the recycling of those goods and the innovation cycle. So I think that's really important. Listen, Tom, this has been really interesting. There's so much more to learn in this area. I think we're going to have to have you back in the future, as a futurist, and we'll continue this conversation. But until then, Tom, how can our listeners connect with you and learn more about what you're sharing?

Tom Raftery ([36:36](#)):

I'm on all the usual social media channels. I'm on Twitter, LinkedIn, Instagram and so on and so on. So absolutely look me up there. There's not many Tom Rafterys out there. So, I'm quite easy to find. Typically I'll be the one with the hat and the profile picture I wear the Dora. Typically, my email address is Tom.raftery@sap.com. Feel free to hit me up there. The podcasts that you mentioned, Climate 21 and Digital Supply Chain can be found on any podcast application, just go in and type in Climate 21. It will be the first one that comes up or type in digital supply chain. Or, they're available through to the web. So just Google them and you'll find it.

Karin Bursa ([37:36](#)):

Tom, we'll include that in the show links as well. Tom Raftery, Global VP, Futurist and Innovation Evangelist with SAP, thanks so much for joining us today!

I hope this conversation around digital supply chain and sustainability has helped to raise the IQ of our audience today. I have certainly learned a few things today and I want to thank you for that.

And, on the topic of raising your supply chain IQ, I want to encourage you to tap into the many great resources available on [www.SupplyChainNow.com](http://www.SupplyChainNow.com) and join us in the livestreams. You may see Tom there, and we'd love to hear from you and get your perspective as well.

Until next time, please subscribe to TEK TOK that's T-E-K-T-O-K the Digital Supply Chain Podcast. You don't want to miss an episode!