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Episode 10: Building the Decarbonized Future with Chris Rezendes of Context Labs [PODCAST]

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In our tenth episode, **Chris Rezendes**, **Chief Business Officer** from **Context Labs**, joins **Chris McKenna** to discuss how digitalization can help companies achieve their climate goals. How is the use of data changing for energy producers and users? Where do Software-as-a-Service (SaaS) and blockchain technologies fit into efforts to improve transparency and disclosure?

Transcription

The below episode transcript has been edited for clarity.

Chris McKenna

Thank you for joining us today where we'll share perspective from one of our clients, Context Labs. They are a software-as-a-service-based, artificial intelligence-based, blockchain-based application that provides a secure platform for generating, tracking, and managing digital certificates for carbon credits – also known as decarbonization-as-a-service. Today we have with us their Chief Business Officer, Chris Rezendes. I've had the pleasure of working and knowing you for the past decade, and it truly has been a pleasure. Can you give us an overview of the company's technology so that our audience can get to know you a little bit better before we continue with the discussion?

Chris Rezendes

I'm the Chief Business Officer, which is a glorified title for someone who spends a lot of time trying to find, filter, and fix opportunities to generate revenue from fairly complex value propositions. We are a SaaS company that is obsessed with information security and cybersecurity, particularly cyber physical security. The machine data [we work with] comes out of the sensors that are in, on, and near the assets we care about. We employ lots of different machine learning techniques and very specific and very narrow AI routines. Further, tying it all together we have a distributed ledger that sits underneath all of our workflows so that we're creating a glass pipeline of a data supply chain. We're working with primarily the big physical asset owners and operators.

If you think about energy, upstream, midstream, downstream production, transportation, and refining,

these are the entities that own and control significant physical assets that have an intimate relationship with climate. Those assets, if they're operated well, should have minimal carbon emissions as they should be managed very tightly for their emissions footprint. On the other side, climate can represent a significant operational or financial risk, primarily through water interfering with the operation of the asset.

Think of it this way: climate is no longer an externality and emissions need to become an operating variable. Companies that have significant carbon footprints or carbon emissions or intensity challenges need to see carbon as another performance specification for their assets, for their processes, and for the products and services they deliver. They need to start to account for carbon so that they can analyze baselines, analyze performance and where they are outperforming their peers, leverage that proof of low carbon intensity or low carbon emissions, and leverage that in both commercial and capital markets.

I want to be clear – it's not always going to be about a premium. In some cases, we have clients who might be in the natural gas space and would like to supply the European Union but can't get their product in because they're not compliant with the regulation called The Oil & Gas Methane Partnership (OGMP) 2.0. It can be about defending access to a market as much as extending access in a market. It can be about expanding access to capital among investors who have interest in green initiatives. It could also be about defending the possibility of an interest rate hike. Our thesis is that climate is no longer an externality. Carbon intensity, carbon emissions, and carbon is an operating variable and proving your performance is going to be paramount to continuing with that license to operate, defending access to markets, and expanding your opportunity to grow share, grow margin, and grow enterprise value.

Chris McKenna

Chris, thanks for providing the context of Context Labs. Can you describe your client lens with respect to your customers? What challenges do they have and why do they come to Context Labs and use their technology to solve it?

Chris Rezendes

There is a concept that climate generally can be seen through either the regulatory lens or voluntary lens. I don't like the term voluntary because it's misleading. I think companies are accounting for and tracking carbon. There's one major dimension of climate performance but they're doing it for two reasons. One because it is a compliance requirement. It is a regulatory requirement they need to track and report at some level. The second reason why they're doing it isn't voluntary, it's compelled. They're compelled to do it because of a competitive pressure, because of a customer requirement. Maybe there's an industry non-regulatory benchmark, but nobody's doing it because it feels like a good thing to do. In some cases, companies are coming to us because they want to automate their reporting to reduce cost or error. In other cases, they're coming to us because their understanding is that their license to operate in certain state jurisdictions, California, Colorado, Massachusetts, Ohio, Pennsylvania, is being impinged by their inability to get their carbon emissions under control. And then in other cases, they're truly looking at trying to build new assets and having challenges with raising project finance or debt finance for a hydrocarbon-based asset. They're coming to us for lots of different reasons, but the value proposition we deliver or the challenge that we're addressing for them is always the same.

They are somewhere on their climate journey and in their digital journey. And what they need us to

do is help them find the intersection in how digitalization can help them achieve and prove their climate goals. They're not going to be able to do it with engineers in the field taking notes with wax pencils and waterproof notebooks. They can't do it with disparate sensing and instrumentation systems that don't have context. They really do need to revisit where they are in their digital maturity cycle or life cycle in order for them to take the next leap in their climate or carbon journey. We work with folks that are typically on a scale of 1 to 10, 1 being immature, 10 being mature. On the Capability Maturity Model Integration (CMMI) model we're typically working with people that are in the 4 to 5 range all the way up through the highest end of maturity. We're trying to help them figure out how they can be operationally and financially relevant in their approach to achieving real carbon performance so that they can prove it and where possible, they can make money from it.

Chris McKenna

Thanks, Chris. Let's talk tech in terms of digitizing across the climate journey they take. Context Labs has a very rich text stack that is an enterprise solution enabled by SaaS, AI, and blockchain that ties to physical and digital world. Can you discuss how these technologies help you solve those customers challenges and enable you to adapt and scale to each customer's needs?

Chris Rezendes

Any of the work that teams would do in this space needs to begin with the scary word disclosure. We have lots of reporting regimes across lots of national and subnational jurisdictions. While they're necessary, they're insufficient. If you take the GHG, the Greenhouse Gas Reporting Protocol from the U.S. Environmental Protection Agency that mandates a certain amount of disclosure, the commercial market will yawn and the capital markets will not care. You will be trying to make a claim about your carbon performance or your carbon intensity and no one will care. This is the place where the Context Labs value proposition starts for industrials with big physical footprints and carbon intensity or water intensity challenges to move commercial or capital markets more in their favor. They have to disclose beyond compliance, and the biggest disclosures they need to make are machine data from sensors that are in, on, or near their core process assets. They've got to take certain crown jewel data that has never been conceived of as being disclosed to a third party and that becomes the fundamental disclosure moment.

What do we do? We start with that premise. You need to disclose beyond compliance crown jewel data, and Context Labs will say that we will treat your crown jewel data as a national security asset. Information security and cybersecurity is a digital thread of trust. We start with proving to them we will protect their data from leakage, misinformation, or disinformation. Second, we have a distributed ledger that sits underneath all of our workflows so that every entity that enters a transaction and every event in those transactions is recorded to this distributed ledger. That's the glass pipeline. Now the ledger itself doesn't necessarily provide superior security. It provides the ability for no one to say, "I didn't say that" or "We didn't provide that" or "That wasn't our statement." In many ways it's about attestation, non-repudiation, and risk management and mitigation, commercially versus in a cyber sense.

Once we've got hardened data, and we're running workflows that are in the ledger, we're able to help clients take privileged data, disclose it, and reduce commercial and operational financial risk through these disclosures. One way that we strengthen all of those workflows is by having a very strong application programming interface (API) that enables us to embed second- and third-party opinions into these workflows.

If you're ACME widget and you're trying to make a claim of low carbon intensity, and you're going up against a big sovereign wealth fund or pension fund, and you're looking for US$3, 5 or 10 billion in project finance and they've got a big climate mandate, they're going to be asking you questions about your past performance and current performance as indicators of future performance. You can come and say "I'm ACME, and this is my claim," or say "I'm ACME, and here's the evidence of my claim and I've subjected it to the scientific experts, these industrial experts, these risk and finance experts, and they've all signed on to the accuracy of my data, analytics and statements." We get to a whole new level of backing climate claims, and those three things, the securing the data as if it was a national security asset, this glass pipeline underneath all the workflows, and then the secure integration of these second and third party opinions, meets or exceeds existing and proposed regulation coming from U.S. Securities and Exchange Commission, Federal Deposit Insurance Corporation, National Association of Securities Dealers, and others.

Chris McKenna

Thank you so much and good segue because we talked about the importance of machine data. We always have this conversation about data and you know one of my taglines is that data is the new form of IP currency. Data has become so important to producing services and solutions; maybe so much so that it's actually more valuable and important than the solution itself. Can you describe Context Labs' perspective on data, it's approach to its data governance model, and how you see that playing a role in digitizing the physical world?

Chris Rezendes

Chris, you helped us coin a phrase here: asset grade data, data that has our Context Labs brand of trust services, identity services, hardening enrichment, and contextualization services. Those are just different dimensions of preprocessing. Imagine really intense preprocessing to prep the data to then say, we can stamp this data as having passed all these tests. It is asset grade data, meaning it's a new asset class where you can use, share, and disclose this data across the panoply of applications. For those of you that are more technical than I am, you know sometimes a single sensor provides a single data stream and it's fairly brittle with respect to what it can tell you or how you can use it. Sometimes data breaks down and you put it in a new application or a new context. Our primary thesis is data as an asset class, asset grade data.

Second, your data is always your data. We are very clear that data is not digital exhaust, it is a national security asset. It's a crown jewel asset. In many cases, we might argue data about emissions, water, or some other important climate mandate in a given context could be as powerful as the physical production itself when it comes to trying to create brand, market awareness, differentiation, share, and margin. We don't build subscriptions; we don't repurpose the data. We don't have second, third, or fourth exploits of the data unless it is for our clients. If the data can be imbued or if we can embed these security regimes into the data so that it can move across workflows, then we're actually having our cake and eating it too, or enabling our clients to. You're going to disclose more data and reduce your risk.

Data in motion and data disclosed is at risk, but we would say that our tooling, which puts us in position to be one of the 35 "permanent members" of the National Cybersecurity Center of Excellence (NCCoE), that's a benefit for us. The NCCoE uses our tooling for all kinds of critical infrastructure programs so we end with this idea that you can disclose and manage risk if you use the right tooling. Chris, time and free will as the paramount human right, clean air and water to make a healthy corpus, to harness that spiritual and mental energy, that is human. I think data might be the

third part of that Holy Trinity going forward, where ultimately every individual, and we do work with indigenous communities all the way up through the Fortune 500, any entity, whether it's a human or corporation, really does need to see core data about its existence, identity, its location, state, and status as being one of those critical human rights. That's how we view data. Maybe it's a little prosaic, but when we break it down, the code that we've built, the software that we market, everything that we do, every workflow, every contract, every engagement, we honor climate alignment by honoring the clients who've made that commitment honestly, by honoring the data.

Chris McKenna

Chris, great thesis in terms of the importance of data and part of the Holy Trinity of human rights. I really appreciate that and it fits into my view of the world as well. To kind of wrap up here, I have one more question for you, and this is a little bit more future thinking. I'm hearing from economic analysts that the energy sector is one of the sectors leading our way back to economic recovery. We're seeing an increase in deals and transactions. What are you seeing in your role as CBO for demand in the energy market, what are drivers now and in the future for your solution?

Chris Rezendes

The vast majority of our business right now is in energy or energy transition. We do a lot in hydrocarbon, primarily gas more than oil. We're doing it upstream, midstream, downstream. We're doing lots of work in energy transition fuels, including starting to do work in hydrogen and ammonia, etc. And we're doing lots of work in renewables. Here's what I'd say about that. Back to sort of the Holy Trinity: climate security, energy security, and food security are inextricably linked. One cannot achieve one at the expense of the other two. They're kind of like three interrelated dials and a meter. We need to get our energy security more in line with our climate security and our community security. Energy has to continue to become more available. It has to continue to become more affordable, but as importantly, it's got to be aligned with a climate neutral or a climate regenerative industry.

I'm just back from Abu Dhabi, who hosted ADIPEC, the world's largest energy only trade show. 160,000 folks were there, and I can tell you the number three, the number eight, the number fifteen, we had the largest energy companies in the world spending time with us because they know that in order to meet their mandate, meet the moment, meet the mission, it's not just about the MMBtu or the kilowatt hours or the kilojoules. It's not just about the energy metrics, but it's about how they produce those energy metrics. You're going to continue to see folks try to lock down access to gas more than oil, and the best hydrocarbon sources possible, but more than that, all the way at the other end is no end of discussion around how far can we go in hydrogen and not continue to blow out CO2 emissions budgets or deplete aquifers. Electrolysis is a very water heavy process. If you keep going further to the right is the concept of the Department of Energy and the energyshed program, whereby in the future the vision is we can not only select an electric or utility bill to pay a premium for green, but we might be able to pay a second premium for local or for a specific source. Energyshed proposes to put distributed energy resources in currently and historically underserved, underinvested, and underrepresented markets.

Imagine if traditionally underserved and currently underserved infrastructure development environments, those census tracts that are not as resilient as they need to be, what if they can start to crack the code on getting energy from a solar farm into a distribution network that right now isn't so friendly to the data coming in from the solar farm? The point is whether it's the hydrocarbons or the transition fuels or the next generation of truly being able to have not just an intelligent and adaptive grid, but an intelligent and adaptive marketplace. All of that needs hard data from the

physical world run through secure systems so that the big people and the big chairs can make the big decisions and the little people in the little chairs can do the same. These tools and methods can speak to the Fortune 5000. It can speak to the folks that are at the base of the pyramid. If that kind of data can be trusted and distributed and used to make these kinds of decisions, then I do think we have the opportunity to start to make progress on the energy security, climate security, food security, and then that will be the gift that keeps on giving for community and national security.

Chris McKenna

Chris, huge thanks. What I always love about having conversations with you is that I'm always learning something new. We thank you for all your insights here and your client lens in perspective from your world – you can tell you are very passionate about securing our physical world through digitization and I'm sure everyone here has learned a lot. We appreciate all the perspectives you gave us, so really big thanks to you, Chris.

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