

 *Jaco* - **00:02**


Hello and welcome to another episode of the Human and Machine podcast. This is Yaku, my co host, Lenny.

 *Jaco* - **00:09**


Lenny, how's it going?

 *Lenny* - **00:10**


Good to see you, Yaku. Not too bad, not too bad.

 *Jaco* - **00:12**


Thank you.

 *Jaco* - **00:12**


It's been a week since we recorded the last episode. That was, of course, with Graham Walton. He's the MD of flow software, if you missed that, fascinating insights about creating a software tech startup in South Africa and with some big global aspirations. So that was a great chat with Graham last week.

 *Jaco* - **00:31**


Yeah, and definitely I'm looking forward today. The first episode we had, we talked to an system integrator, then we had a software development house on the call, and today we're actually talking to our first end client. So that's going to be quite an interesting conversation and to see what they've done, not just during lockdown, but before that and how they manage their information in their manufacturing environment.

 *Jaco* - **00:52**


Fantastic. So the Human and Machine podcast is obviously where we talk all things industrial technology. We talk about challenges affecting the manufacturing and mining industries, all very much with focus here in South Africa, first of all, and then the people behind the scenes, the brilliant people that are involved in making the wheels turn, so to speak. Of course, in South Africa. Here we are on 103 or 104 days of lockdown. And of course, this humongous outbreak of this dreaded coronavirus has brought about probably a groundbreaking change in what we perceive as normal today. I think with an estimated 12 million or so cases globally and 225,000 year in South Africa, the pandemic has sent ripples of fear across masses, destroying not only lives, but also the economies of most countries. And that's, of course, given the very stringent enforcement of lockdown.

 *Jaco* - **01:44**


And of course, among the many sectors that have witnessed the downfall is the food and beverage industry. It seems to have taken, in many ways some of the worst hits. So in the short term, the food and beverage market vendors will really have to prepare themselves for the long term impact of Covid-19 but as we've discussed over the past two episodes, that's always a great opportunity for innovation. Exactly. And not only as we often do in this industry that we love, not only surviving, but also thriving and becoming really innovative. So today we're chatting with Francois.

 *Jaco* - **02:20**


Francois, welcome.

 *Jaco* - **02:21**


Francois Tron is from Clover. I hope to say that Clover is, of course, one of South Africa's most prolific and impactful branded food and beverage manufacturers, also with really good coverage in Africa as well. Not just South Africa. I don't think a lot of people realize that, but also very community focused company, and it's great to have you with us today. Thank you for your time.

 *Francois* - **02:48**


Thank you. It's great to be here.

 *Jaco* - **02:51**


And were chatting beforehand. I haven't seen Franco.

 *Jaco* - **02:55**


I think the last time I saw.

 *Jaco* - **02:56**


Franco, I think it was in Sun City that I saw you last, many years ago. How the world has changed since then. We're not in Sun City. I'm not sure how soon we'll be able to go to Sun City, but that's the last time we spoke. What's been happening? How are you?

 *Francois* - **03:11**


No, I'm well, thank you. Yes, a lot has changed. It's been an exciting time for me and my team and playing around with new technology, new challenges. It's been a very exciting time since we last met.

 *Jaco* - **03:25**


You had a lot happening before lockdown and before COVID. You were at quite a pivotal moment in terms of implementing a lot of the sort of advanced technologies and things that's available to the industry. And then Covid-19 happened.

 *Jaco* - **03:43**


Yes. I think at this stage, we haven't really noticed too much of an impact in that development process of ours. As you say, we've been working on this for quite some time, and like most technological developments, it's not something that opens overnight. So although we've lost a bit of traction here and there, fortunately, the team has adapted very well to the new way of living and working. And in certain instances, I think we've actually been better off given the new working conditions and we've learned a couple of new skills. It's really helping us.

 *Jaco* - **04:29**


That's amazing. That's great feedback. We've had very similar feedback from Graham, for example, last week, also chatting about how being forced into the new. I hate referring to it as the new normal, but that's what people are calling it, how that has actually helped in many ways. The team be a little bit more productive and be a little bit more cohesive as a unit.

 *Jaco* - **04:49**


Yes. What was the old saying?

 *Jaco* - **04:51**


Working from home.

 *Jaco* - **04:52**


Now you're living at work, now you're.

 *Jaco* - **04:54**


Living at work.

 *Jaco* - **04:57**


Franchise. That's quite interesting. Obviously, your team is quite big. You head of the engineering department. From that perspective, is anything that changed in the way that you interact with your team during this phase, or is it kind of always been a way that Clover adopted to have kind of a remote interaction with the team? Or is it something that changed during this lockdown phase as well?

 *Jaco* - **05:24**


So our team, especially the head office team, the development team, is used to traveling quite frequently. So for us, our desks are wherever our laptop bags are. And from that aspect, it's not funny to change your working location. And guys are well adapted to that. What I've actually find now is that our interaction with the engineers on the branches have actually become stronger because we have gotten so used to using virtual platforms to communicate and collaborate. It's a lot easier to pull in these guys who are remote because that's just how we work now, where very often you would say, look, I'm going to be in natal next week, so I'll discuss it with our engineer there when we get there. Now you just get onto teams and you discuss it and you progress far cheaper as well.

 *Jaco* - **06:27**


It's far cheaper as well, but nothing beats the human touch.

 *Jaco* - **06:34**


It's been effective for us so far. And you grew up in the food and beverage industry, I think Cape Town. Not born and bred or born and fled.

 *Jaco* - **06:47**


Most of my development years were in Cape Town. Cape Town, yes, in the greater Cape Town area. Studied at Southern Wash. Best university in the world.

 *Jaco* - **06:59**


Next. Up next.

 *Jaco* - **07:06**


No, it was during my student years where I was first exposed to breweries.

 *Jaco* - **07:11**


Doing, I think, as a student that's probably fairly common. Oh, you mean the manufacturing side of brewery.

 *Jaco* - **07:22**


So I was first introduced to the product and it's the first time where I was really introduced to the manufacturing systems environment or manufacturing in general. And it was really an eye opener and it looked quite interesting. So I actually ended up being with the group for quite a substantial time. Okay, amazing.

 *Jaco* - **07:48**


And you started at appletize, I think, in the Elgin. Beautiful part of the world. I was lucky enough to spend a few days at the Elgin river lodge last year in the valley. Beautiful, beautiful part of the world. I think of far worse places to work and be based in.

 *Jaco* - **08:06**


It was a special time because at the time I lived on a wine farm and every day I commuted up celery's pass to the Apple farm where the factory was located.

 *Jaco* - **08:15**


Amazing part of South Africa. For those listeners that are not familiar with the Elgin Valley, it's definitely apple country, but beautiful place. And then you moved north. You made the big decision to join the northern part of the country.

 *Jaco* - **08:32**


Yes. I suppose that's an inevitable part of most engineers career. As pretty as the vineyards and the orchards are. Some point we need to face reality. So I went from a very small factory. Sorry to interrupt.

 *Jaco* - **08:50**


Do you still feel that most of the opportunities to young engineers are still up in.

 *Jaco* - **08:56**


I think that is, from what I'm seeing, slowly starting to change, obviously, in a lot of the manufacturing, and especially, I think the heavier industries, the most opportunities are up north. But it looks like there's quite a big development in engineering kind of services in Cape Town, especially on the software development side. So from what I hear, a lot of people are happily moving back to Cape Town, which I can fully understand, of course.

 *Jaco* - **09:34**


Cool. So franchise, obviously you moved to Khauteng, you started your journey at Clover. And I think from my perspective, I think one thing that's fascinating for me from the clover story and what you guys have done there, and this is done before lockdown, it was done before. The need of having data centrally available for everybody is that you guys already went on that journey even before that. So you were kind of, I almost want to say one step ahead of the curve when it came to having data from your remote sites locally available for everybody to actually access them and have that data available for everybody.

 *Jaco* - **10:14**


Yes, thank you for that observation. It is something that we have been busy with for probably the last four years or so is kind of reviving our manufacturing systems environment. There were very good implementations before that, but we got to a point where there was a need for central information management, data management and operational management and to leverage the benefits that come from that. So we started this journey to roadmap, a plan to go to a future instate. And it was actually funny thinking in preparing for this discussion you realize that when you look at your progress day to day, it looks like nothing changes. But if I look back the last two years or the last four years, we've actually made very big improvements or very big good progress towards these goals of ours.

 *Jaco* - **11:23**


And I think that talks to a good alignment in the team, a strong team who understands what the objectives are talking about.

 *Jaco* - **11:33**


Team I have to ask the, I almost want to say the dreaded question about the love hate relationship between it and OT, and you can be 100% declined to answer. I'm not sure how much you guys love each other on that side, but for people that are not that familiar, there's a long standing industry observation or perception, I suppose, that the it and the OT folks often bump heads a little bit. And I think it probably stems from the fact that very often in the OT space, the procurement, the maintenance and the engineering of the systems don't belong to it, where in all other industries it does belong to it. And I think that's where a lot of that sort of.

 *Jaco* - **12:13**


But it does feel like over the past two years or so that divide has definitely shrunk and has been gapped and we see a lot more cohesive teams. Now between it and ot people. What are your thoughts on that?

 *Jaco* - **12:26**


That is a very funny observation because it is so true, and we definitely tread on each other's toes. I'm fortunate to have a colleague across the stream who I have a good relationship with, and I think we understand each other's needs very well. And what I've actually realized is that once you understand the benefits and the needs of the other, then you can actually leverage that philosophy to your own benefit. Yes. So once you really understand the benefits that the strict environment brings, you can actually use that to your benefit. And that's what we've done in many cases. And I think everyone's scared of handing over control of hardware, handing over control of infrastructure, handing over control of security, but you can leverage that to actually take away pain out of your life.

 *Jaco* - **13:36**


Make hardware someone else's problem, make infrastructure someone else's problem, and use security structures to actually help you to manage operational structures. And I think once we've found that balance, we've established a very good working relationship.

 *Jaco* - **13:55**


Security is, of course, a hot topic, especially, I would imagine, in free and Bev, and I think, where it has been quite not targeted, but I suppose, quite particularly focused on the security space that very often these sort of legacy control systems have been designed to last a lifetime, and very often they were not designed to be online. And all of a sudden now they're expected to be online, and that brings with it all sorts of security challenges. So it's super critical for it and.

 *Jaco* - **14:26**


OTD to be on the same page 100%. And this is unfortunately a daily conversation for me, even with big oems, where the mindset is often still. Exactly. That is, I'm putting down a machine for its life, but that's not really a relevant position anymore. Anything that you put on a network, anything that is exposed, will be a security threat. And I had a good chuckle with our infrastructure manager the other day, because he feels like he's brainwashed sufficiently now.

 *Jaco* - **15:09**


Brainwashed.

 *Jaco* - **15:11**


But unfortunately, this is the reality, and we can't have little islands anymore.

 *Jaco* - **15:17**


And also what makes it a little bit more challenging on the OT side is that it's an operation that usually runs 24/7 so to be able to pause that at some point and do updates and upgrades, it's got to be planned very carefully.

 *Jaco* - **15:33**


These are factors that we definitely take into account in our technology selection, because we've come to realize that's a non negotiable. Your operating systems, your software applications need to be up to date need to be secure. That means frequent maintenance and you can't stop your operation every time.

 *Jaco* - **16:00**


He's burning to ask you a question. Just quickly, you mentioned some of the drivers that I'm keen to understand. Some of those drivers that sort of pushing you towards sort of innovating and advancing technology. I would imagine that a lot of it is consumer trends and innovations that's driving it. What are some of the main drivers that you feel is responsible for the most innovation? There's obviously a food and beverage. I'm thinking of stuff like is something like health consciousness amongst consumers. Big driver. I know the plastic ban, for example, is a big thing globally. There's obviously traceability is a big factor in food and Bev. Then you of course have the regulatory landscape which has to be quite stringent as well. Of course, in food and Bev, obviously it's people's lives.

 *Jaco* - **16:54**


What are some of the big drivers that are pushing you guys towards that innovation that you're aiming for?

 *Jaco* - **17:01**


That's quite a loaded question.

 *Jaco* - **17:03**


It is.

 *Jaco* - **17:03**


Sorry.

 *Jaco* - **17:07**


Look, at the beginning of this journey there were a couple of things we needed to decide because as I mentioned before, I'm fortunate to have a very strong team and it's very difficult to hold the guys back. They like development, they like new toys. But at the end of the day, Clover's automation development team is not there to serve itself but to support the business. What's often difficult is that the business, without prior knowledge of what the technology can bring, doesn't really know what to expect or what to definitely ask for. So where we started was with the business goals and the business strategy and we aligned our roadmap to talk to that.

 *Jaco* - **18:04**


Obviously in the end state of that journey you have a couple of capabilities that you need to put in place, but it's not a switch that you flip and all of a sudden you provide these capabilities. And those capabilities include what you've mentioned now. It includes visualization of operational performance, real time, it includes tracking and tracing capabilities. It includes a number of things that can support the business strategy. The way control systems have been developed in the past, have often spoken to immediate needs of production. And while it was very good in servicing that, the mixed bag of control systems that you sit with at the end of the day make it very difficult towards a definite end state.

 *Jaco* - **19:01**


And this brings me back to when you look back at where we've come, because on the one hand it feels like you haven't reached that end state progress.

 *Jaco* - **19:11**


But it's a journey, it's never going to be perfect because it implies that there's nothing more that can be done.

 *Jaco* - **19:16**


Yes, but if you look back and you can look at the technologies and the capabilities and the systems that you've already put in place in order to support the business strategy, I think we've made some progress. And I think that to an extent that addresses your question, it wasn't innovation for the sake of innovation. It was innovation to support a specific need and to drive a specific end goal. And even though I think we are quite far from reaching that end goal, and there's probably guys out there who do it a lot better than we do, I think we've made quite a bit of progress, and I'm quite excited about where we are going.

 *Jaco* - **19:55**


Fantastic.

 *Jaco* - **19:57**


And I think also what's very important is we talked about meeting certain business objectives, but I think for this itot journey to also be successful, we also need to take in consideration potentially some IT objectives that we need to marry between it and OT. We're talking about potentially, if you think about the buzzwords in the IT world, we're talking about big data. We're talking about centralizing your operations. We're talking about mobility and really making everything available for not just remote workforce. And this is data that's predominantly been isolated into the OT space as we know it. But Fratcho, what did your journey and what did you guys do from that perspective to kind of meet that it objectives as well?

 *Jaco* - **20:44**


Lenny, I think there's a number of items there. Firstly, I think once you have that relationship established between your IT and your OT teams, and there's a better appreciation for what goes into the management, you can better align those goals. So things like centralization, virtualization become topics, because if you understand the ease of the maintenance, or first you understand the importance of the maintenance and then the ease of that maintenance, it's easier to adapt to that. On the one hand, though, there's also kind of an expectation from the IT team to demonstrate capability. I think we've come a long way in terms of our infrastructure, server infrastructure, and network teams having demonstrated certain capabilities to us, which gives us a level of comfort to adopt centralization in terms of the applications we use as well as the infrastructure we use.

 *Jaco* - **21:51**


So it's very easier for us to consolidate data collection in a central geographic location rather than replicating that across multiple sites. You enter that mobility, which is also a very important thing for us. And again, something you can't really do in isolation or you can't do well in isolation, that's definitely been part of our conversation with our IT team, and it also, again, talks to technology selection. Certain applications make mobility a lot easier than other applications, and it's definitely been part of our decision making process.

 *Jaco* - **22:34**


And as you mentioned, even worse, if you sit with a whole bunch of legacy components, I think that's a big struggle for the OT environment, is, yeah, we hear all of these things, but we also have to remember that we sit with legacy things and it's almost like we need something that can bridge our legacy OT environment to align with this new fancy stuff that the IT can provide us.

 *Jaco* - **22:59**


The conversation around legacy equipment is something that keeps coming up. And when you start this technology development journey of yours, you get very excited about the instate and you almost want to rush into the solution. But I've learned that we need to manage different technologies on different stages of their lifecycle, and that requires a team that is ambidextrous, that can actually look at these different technologies again, that's something that you almost need to embrace. Instead of the mindset of I need to replace that piece of kit as soon as possible, it becomes, how do I wrap that piece of kit in some kind of other technology that allows me to manage it better.

 *Jaco* - **23:54**


How do I include that?

 *Jaco* - **23:55**


How do I include those two wanting.

 *Jaco* - **23:57**


To rip and replace?

 *Jaco* - **23:59**


Exactly.

 *Jaco* - **24:00**


I mean, rip and replace, it's just not financially, just sometimes it just doesn't make sense to actually go that route.

 *Jaco* - **24:07**


Exactly.

 *Jaco* - **24:08**


Yeah, definitely. You speak about consolidating. We spoke about data last week with Graham about the flow of data. And about the data is there. It's just about making it available to just the relevant role players within the supply chain. And everybody has a different need and a different want from what they want to see. And I suppose the data or the information buck stops with you guys. You would get a request further up the supply chain to get a view of a certain set of data. What does that look like? Does that happen often? Regular? How does your team respond to that? Do you have the capability to very easily expose and contextualize the data depending on who's asking for what?

 *Jaco* - **24:51**


In terms of data and information flow? We are actually at a very interesting point now. Again, it's something that we know is capability we can deliver, but that the business didn't always understand very well in all areas. Some areas there was some pull from the business, but we're experiencing a lot more pull coming from operational managers asking for data and information. That's pretty exciting for us on the one end, but at the other end, it also means we need to accelerate some of our activities. In terms of data, there's a couple of things that's important for me. You want it as complete as possible, and that means you shouldn't constrain your data collection based on infrastructure constraints. Again, this talks to the relationship with the IT department.

 *Jaco* - **25:52**


It also talks to technology selection in terms of the software that you use to collect that data. Another thing that's important for me in the data context is data on its own means very little unless you have a very highly skilled individual interpreting that data. So a part of our roadmap has been to provide an OT infrastructure that provides context to that data, because the more context your teams are reading, the easier you can turn that data into information that actually drives decision making. Does that also? That's perfect.

 *Jaco* - **26:40**


Again, we had a long chat with Graham last week about the importance of the data and not only being able to contextualize it, but to your point, also understand where does it come from, all these disparate sources? And it's very often now we see that it's outside of the fence kind of sources that it's coming from. And yeah, just another reason for the two teams to work together very closely and happily work together.

 *Jaco* - **27:05**


It's really something. You can't divorce data from your manufacturing systems. You should really see it as one implementation and develop a consolidated view. Something maybe just on that topic that I've realized of late and again comes back to, especially on OEM systems. And I find it very often with technology salesmen as the sell of buzzwords. The TLA.

 *Jaco* - **27:45**


Yes.

 *Jaco* - **27:48**


So the guys who come to you and sell you industry 4.0 out of a box and who sell you IoT systems that don't actually address your need, but allow you to throw buzzwords around. If I can't consolidate that into my reporting platform, it actually misses the point. So that's also an area where technology selection needs to be very specific, and we can't just implement willy Nim.

 *Jaco* - **28:21**


I think that's a very important point. I've heard of so many people that they've got now in the fourth industrial revolution, before IR, we're in the industrial Internet of things. And I must have the strategy.

 *Jaco* - **28:34**


I must have a DX, a digital transformation strategy.

 *Jaco* - **28:37**


I must have it because is it actually going to meet your business needs and business requirements and actually going to sustain taking your business into that future? And I think that's 100% right. You shouldn't just go onto this journey just for the sake of going onto it, because now it's happening. I must have. It's a clear objective of why you want to go and embark on that strategy and what is going to meet from a business perspective.

 *Jaco* - **29:03**


Absolutely. It has to tie back to a business case, to a business need.

 *Jaco* - **29:07**


I can go on about this topic for a very long time because I agree, at the end of the day, you need a business strategy, and your technology development process needs to support that. As soon as you start splitting it up into different strategies with misaligned objectives, you're setting yourself up for a world of pain.

 *Jaco* - **29:31**


On the technology selection side, I know that you've recently had an ignition project. I think it was talk about that. That's obviously something new. It was something different. It's something outside of what was existing within your vast ot landscape. In terms of technologies. What is your very brief experience? What has it been like? What's the experience with ignition been like? Any observations, learnings, perhaps?

 *Jaco* - **30:03**


It has been an interesting journey, and especially when it comes to that layer of OT systems, it's very difficult to make a change because the incumbent technology is normally so far entrenched, it's difficult to remove it from your systems. But we got to a point where we needed certain things to support our journey, and ignition looked like the platform that would help us to achieve the capabilities that we wanted in our roadmap. And from our experience so far, it's been very positive. It's been a very steep learning curve. It is, again, something that you cannot even think of if you don't have the right people around the table. I keep coming back to having a strong team because the skills and the team that you need to drive this kind of change is paramount.

 *Jaco* - **31:09**


The implementations that we've done so far has actually also started creating a lot of excitement in the business because the ignition platform allows us to address certain needs that our operational teams in the factories have had for years. I'm very excited about mobility. I'm excited about the HTML five platform that we run. The visualization on it just opens the door for so much more interaction with the system. And it's not this little island anymore, but it becomes something that everyone can live with.

 *Jaco* - **31:55**


I think an important note on that. We spoke about it a little bit briefly. We said about legacy OT equipment, legacy entrenched pieces of software that you don't have a rip and replace kind of, but you wrap it with something else to give you this. I think that's a very important thing for Brownfield's kind of implementations is to understand what your goal is.

 *Jaco* - **32:20**


Necessarily a rip and replace strategy is not necessarily the correct way to go, but to have the capability to wrap something that you already have from an investment perspective, just to leverage new technologies that this new technology can bring to you to expand into the mobility field, as Rancho mentioned, I think that's a very important factor, especially in Brownfield's implementations, where you sit with the challenge, you sit with technology that's potential investments, that you create, vast investments, technology that's 1020 years old, now, all of a sudden you need mobility. And I think that is a very important point that you've mentioned, is to wrap that, to extend the capability to.

 *Jaco* - **32:57**


Bring that interoperability is probably quite important for whatever sort of tech that you're looking at. That ability to connect, include, have an all inclusive kind of an architecture and be to very quickly and easily connect all those, not only machines, but people with each other. Yeah, that's quite a big.

 *Jaco* - **33:16**


And that is very important. As I say, when you discover that you need to be ambidextrous and embrace different technologies, then you can't have a very rigid, overarching system. You need something that is more flexible and that you can adapt quite easily.

 *Jaco* - **33:35**


You speak very fondly of your team, the strong team that you have. You want to do any shout outs, by the way, welcome to do a shout out. Just a question on team, you mentioned two things that I just want touch upon you. You mentioned about the team being very innovative and giving them the freedom, I suppose, to be able to innovate and do different things. What that does mean for you as a leader, though, is you can't expect them to slow down because you want to lead. You want to give them the ability and the freedom to do different things and innovate and create some new things. But the challenge then is you can't expect them to slow down and do that at the same time. That's always tricky for leading an innovative team like that.

 *Jaco* - **34:25**


Firstly, I can't mention everyone by name, because we sit here for a while, but I do want to give a special shout out to Dion court. He's been a very big driver in this ignition journey, specifically, and in our standardization journey. And I actually told him I don't want to step on his toes. I don't want to take his credit for anything in terms of managing that innovation. One of the things I've learned is, as a manager, firstly, you need to create that direction, because if everyone knows what the end goal is, then the innovations and the work that they bring to the table will be aligned to what your end state is. Exactly right. The other thing I've learned is as a manager, when to stand back and just give them space. Obviously it comes with a trade off.

 *Jaco* - **35:26**


Sometimes you will say, look, this is fantastic, but it doesn't serve our need.

 *Jaco* - **35:31**


That's great, but it's not applicable. Amazing stuff you're doing, but how are we going to use it?

 *Jaco* - **35:39**


But often from that flows ideas that we can use. Definitely. So there's a bit of a give and a take, but freedom is definitely key. You need to be comfortable enough to accept that the guys in your team are smarter than you will and that sometimes you need to listen to them. All you need to do is point them in the right direction. And that's how I try to engage with.

 *Jaco* - **36:04**


Well, that's very often, not very often. That's what we do as leaders. We guide and we lead and we encourage and doesn't sound like you micromanage at all. It's great. Sounds like almost like a lockersy, like giving the guys the ability to do what they have to do and trusting them and giving them that rope and that freedom. That's awesome.

 *Jaco* - **36:27**


That's what we're going for.

 *Jaco* - **36:30**


Franchise. Maybe a little bit of a difficult question, but is there anything from a technology perspective?

 *Jaco* - **36:36**


We had easy questions. It's been a good one.

 *Jaco* - **36:41**


Anything in the future pipeline of your roadmap that you might share with us or you're allowed to share with us what you guys are doing with the next stages of your roadmap? I mean, you spoke about having this roadmap and that was the part of the success is having this roadmap that's aligned with your business strategy and journeys. Anything in the future that you guys are going to do that you might.

 *Jaco* - **37:03**


Share, I could tell you, but then I'd have to kill you.

 *Jaco* - **37:09**


Trade secret.

 *Jaco* - **37:11**


I think as we are progressing down this roadmap of ours, and as I said, the pull from the business is starting to get stronger, I think that the focus for us is really to say, okay, right, we've come to a certain point in our roadmap. We've seen some pull. Now the pull doesn't look exactly what we envisaged it to be. So now we need to make sure that we service that correctly. And I think often we find ourselves in the place where we want to control everything. Again, similar conversation to we want to control the infrastructure and we had to learn to let that go. We wanted to control the visualization side and the reporting side as well.

 *Jaco* - **37:59**


And now we need to learn how do we use the capabilities we have, the data collection, the aggregation, the contextualization and feed it to our customers in the way that they can use it. Was that vague enough for you?

 *Jaco* - **38:20**


I like the answer. And the reason I like the answer is it's almost like we said a little bit earlier, that oh goodness, there's fourth industrial. I need to have something, oh goodness, I can do machine learning. I have to do it. I think you're hitting its spot on franchise that there's a pool of a need from business that I am addressing with my technology and what's going to serve your customer. It's not oh goodness, I have to do machine learning now because that's not the next best thing. I think that's exactly the answer that I was looking for and I think a lot of people do that. You said it as well. The big fancy words, the hype around machine learning, artificial intelligence, which is now the next thing.

 *Jaco* - **39:01**


If we look at the fourth industrial space and it's not necessarily serving a need now and having a pull mechanism from business needs, but making sure that your technology is in that state and then to say, oh, what you actually now need is a machine learning algorithm, great. We can push that data into the.

 *Jaco* - **39:20**


Cloud and you sort it where it makes sense.

 *Jaco* - **39:22**


Where it makes sense and because it address a business need. But thanks for that. I really am a strong believer in serving business needs with technology rather than just throwing technology for. Yeah, so that's perfect. Thanks ranch, sounds exciting.

 *Jaco* - **39:38**


I know that Clover is obviously very innovative business. We look at some of the sort of more recent products and product lines have been added. So I'm looking forward to see what's going to be added next to the portfolio. And Clover, I mean, again, it's a very community focused business. A lot of projects very focused on community outreach and community sustainability. Are you involved with any of those personally or have been involved?

 *Jaco* - **40:03**


Unfortunately, I'm not involved with both those very personally. But yes, I am proud to say that we do a lot of work in the community support for Choc specifically and the Mama Africa initiatives where we help people in their communities to become self sufficient business leaders. It is good to be associated with that.

 *Jaco* - **40:30**


I am proud of that. Definitely does make you feel proud. Good stuff. You always aim for around a specific time. I think that was there. Lenny, do you have any other questions? Francis, great chatting with you. Franchise, by the way. Really nice insight.

 *Jaco* - **40:45**


Thank you.

 *Jaco* - **40:46**


Yeah, no, I think from a technology perspective, sorry, I always try it. I always steer a little bit more to the techie side of stuff.

 *Jaco* - **40:53**


Let's use the techie on this.

 *Jaco* - **40:55**


That's great franchise. And again, great to see that you guys are on this journey, on this roadmap. As you said, it's now, what, two or four years in making? Maybe last thing on that is maybe just on the pandemic side. Again, I know you said every day when you wake up and you see your progress, it doesn't look like much, but if you look over the two year span, you can really see the changes. Did that accelerate a little bit with.

 *Jaco* - **41:25**


COVID do you feel? I think what the lockdown period has done for our team from a development point of view is it's accelerated certain processes, rather than necessarily technology in the way that we approach our development process. So, for instance, we've spent quite a bit of time in a work breakdown of the development process, so that it's easier for us to divvy work up between different people. We've spent some time focusing on how do we get user input quicker, doing more proof of concept kind of visualization. Again, ignition provides a fantastic platform to allow users to interact with a platform before it's even live. We've started doing fats remotely. So factory acceptance test of a new process remotely.

 *Jaco* - **42:35**


Who would have thought?

 *Jaco* - **42:37**


Five different people in three different cities. It's fantastic. I think it's helped our process more than anything else.

 *Jaco* - **42:45**


I'm probably going to make you a lot more resilient to change going forward.

 *Jaco* - **42:49**


And agile.

 *Jaco* - **42:50**


Yes.

 *Jaco* - **42:50**


And a lot more agile. Absolutely cool. Thank you, Francois. So yeah, that was Francois from Clover, as we said, the food and BeV industry and the food services and food and BeV manufacturing industry at the moment is a fascinating space and quite a challenging space. Obviously highly machine controlled, but given the expanding growth and the pace, definitely some exciting things happening in the industry. And well done, Francis, to you and the team. It sounds like you guys are doing some amazing things over at global.

 *Jaco* - **43:20**


Thanks, Yaku, and thanks, Lenny. I really enjoyed being here today.

 *Jaco* - **43:25**


Good stuff. It was awesome having you. And next week, we are delving into one of those tlas, three letter acronyms. This is actually a four letter acronym. It's IIoT or industrial Internet of things. And we're chatting with Louis von Bake, who's the managing executive at business connection BCX. He looks after the IIoT business there. At connection. We chat with him a little bit more about what is this acronym? What does it mean, how has it evolved? And I suppose. How real is it? And how accessible is that technology and that industry, especially in South Africa? Yeah, definitely. So that's who we're chatting with next week. We thank you for listening and.

 *Jaco* - **44:06**


Yeah, any last words, then?

 *Jaco* - **44:07**


No, thank you, everybody. Chat again next week.

 *Jaco* - **44:10**

Awesome.

 *Jaco* - **44:11**

Thanks, everyone.

 *Jaco* - **44:11**

Stay safe and look after each other.