

**00:12**

Speaker 1

Hello and welcome to the Human and Machine podcast.

**00:14**

Speaker 2

This is Jaco Markwat and this is Leonard Smith.

**00:17**

Speaker 3

Or Lenny as everybody knows me.

**00:19**

Speaker 1

Let's go with Lenny.

**00:19**

Speaker 3

Yeah, I don't know.

**00:20**

Speaker 2

My parents have blessed me with shame. A nice name, but Oracle adventurer.

**00:27**

Speaker 1

Eddie, we love your name and we love the work that you do. This is episode 31 of the Human and Machine podcast. Our track record is a little bit better than last year. This is our second recording or second episode for this year, and it's April. That's fine. It's better than last year. We're hoping to step up the frequency a little bit of our recordings, but welcome to episode 31. If you're not familiar with the Human and Machine podcast, we talk about all things industrial, automation, manufacturing technology, making sense of it all. And we do that with conversation, through conversation with change makers in our industry, people that are at the forefront, at the coal face, in the thick of things, so to speak, when it comes to anything. Manufacturing, mining, refining, anything we machine and humans meet, which is an interesting area nowadays.

**01:20**

Speaker 1

It's become especially we're not going to talk about chat GPT I think that's an episode, probably a complete episode on its own. I also don't want to pretend that we know anything about that. I think we're all playing with it, trying to understand how to use it effectively as a tool. And I think for our next episode, our following episode, that's definitely something we want to get into as the next forefront of how we interact with technology. If you missed last week's episode 30, there was with Zutari, with Eni and Rhian from Zutari, a fascinating chat about the renewables. Renewables, definitely renewables, but also the impact of infrastructure and the positive impact of infrastructure, not through the obvious how to make infrastructure and build infrastructure that provides for people, but the overall and positive effects of infrastructure in the sense of community and economy.

**02:23**

Speaker 1

So that was a good chat with Rihanna and Kenny. If you missed that last week, there was episode 30. Today's episode 31 I'm really excited about. We're doing something a little bit different. If you've listened to our guests that we've had on the podcast, at least for the last number of episodes, it was very much partners in the space, other technology providers, consultants. We're excited today to be really getting down to the whole first level, which is our customers, our end users of the technology, the people that have to make all of these beautiful systems and technologies and relationships that we have make all of that fit together. We're excited today to host Leon Potgieter. Leon, how are you doing?

**03:09**

Speaker 3

Thank you, Jako. Thank you, Len.

**03:12**

Speaker 1

So Leon is an engineering specialist at Hulamin. Aluminium is un. That's. That's correct. Leon.

**03:19**

Speaker 3

It's Hulamin. Yes.

**03:21**

Speaker 1

Fantastic. And Leon has been. We've known Leon for. We always give away our age, we've.

**03:27**

Speaker 2

Learned, being episode 31. You've got someone that's only 31 years old.

**03:32**

Speaker 1

Yeah. Leon is 31 this week, I believe. We've known Leon and Leon's team at Hulamin for a very long time, at least since the early noughties. So, Leon, we're chatting today about a number of things. We usually kick off with the challenges because that's some of the frustration that all of us experience any day. And there are certainly no shortage of challenges in our industry at this minute. Some of them global, some of them more local. But before we get into the meaty stuff, if you can maybe tell us a little bit more about your background, how you entered the industry and where you started your career.

**04:17**

Speaker 3

Thanks, Jaco. Yes. So I'm a second generation engineer at Hulamin. I followed my father's footsteps. I'm born and bred here in Maritzburg, went to school here, and decided in a young, very young age that I would like to follow the electrical field. So for extra motorbike, petrol money, I used to work for my brother in law. He had an electrical company and I think that's been good stead to get me an apprenticeship at gentlemen. I started in doing away my age, 1988, as most of us did in those years, went to village service, came back, I qualified. I was very fortunate to be kept on at Hulamin and I started my career on a cold mill. S four cold mill. It's the oldest cold mill we have here. Just been on a comma for about a year.

**05:26**

Speaker 3

And then we had some obstinacy issues on the hmis. I took on a challenge and were given a mandate that we can't stop the machine and we upgrade that and we did that. And that's where I got my foot into automation. I was very lucky. I then worked myself up. I became a process tech and we did a lot of these little obsolescence projects. I then left the company in 2004, furthered my studies. I came back as a consultant in 2006 and the company was a very. Gilman. Gilman's a very nice company to work for. They, you know, if they. If they've seen it, you excel in something. They try and retain and I'd project management for them up until around 2013 when they asked me to join the company on a permanent basis.

**06:42**

Speaker 3

I was given a bit of a scope of what that expect me to do in the company. And we started to form this little central services team from where we grew. I think we'll get into what team does a bit later.

**07:04**

Speaker 1

Yeah, very often in our industry, or it's probably nothing pertaining specifically or solely to our industry, but there's a saying, as much as things change, they remain the same. And you've been fortunate. I think today you are fortunate if you have the ability and the choice to be with a business for one business for as long as you have, or at least within the environment of one business for as long as you have. It's become fairly common for us to see people that have been with, especially young engineers over the span of about six years. They've been with maybe three or four companies. And there is an element of chasing every time you join a new company, you join at a premium, essentially.

**07:56**

Speaker 1

But between us, which is we're probably a little bit more old school, we sort of always question the learning that you do, whether it's the same kind of learning and probably the resilience, whether you form any kind of resilience if you join different companies at a frequency of annually or maybe every two years. So from your point of view, you've pretty much spent your entire career at one business.

**08:23**

Speaker 3

I have, and I've done different things in the business, which I've been very fortunate. So pretty much taking the bull by the reins when the opportunities arise, you know?

**08:40**

Speaker 1

Yeah.

**08:41**

Speaker 3

And it's getting exciting and, you know, gradually we're all getting on, and I think this is the time and age that you actually want to be in the business. There's so many exciting things happening, and I look at with my team members that I have there, I wish I was 20 years younger. You know, they just don't know what they have or what they're getting themselves into. It's never changing. It's fantastic.

**09:05**

Speaker 1

It is fascinating. I think we're going to chat about technology in a second. I mean, the availability to technology that is just so vastly different from the tech that we had many years ago. It is an exciting time. With the availability of technology, I suppose it becomes a case. How do we harness it and how do we. And do we have the will and the attitude and the want to harness the new technology that's available? So Udemy is a quick introduction to Udemy. I experienced with Udemy over again over many years. Good business. A lot of local initiatives around community. Probably challenged in many ways by some external or outside of South Africa. Forces. But still a very fortunate position for. For them to be in Hulamin as a business.

**09:57**

Speaker 3

Yes. So you know it's been around for quite a long time and it's changed its name a few times. You know it was registered in. In the. I think it was 1930 519 shell 893 as Elkan. And went to growth phase leaders after the war. They decided that you know, there was a need for. For metal, for aluminium and they decided to build a manufacturing brighton most places if you think about it we're not ideally suited but we. We make it happen, you know what I'm saying? Don't know what went through the people's but through the manager's minds those days. But. We've grown to sixties and eighties, you know. We then were. We were registered on. On the stock exchange in. In 16 1969 around about there. We then were bought out by the unit copper Corporation, which is the sugar.

**11:11**

Speaker 3

And our name was then changed to Hewlett's aluminium and then Tongat. The Tongat group brought us out after that. And then we became Hewletts aluminium or Hewlett aluminum, put it that way. And then in the nineties we decided no, we've gone out and we became human. So yes, it's been a transition. As I said, I'm a second generation engineer. My father actually joined there in the sixties. So it was fantastic to see him go through it and me follow on. Unfortunately he was a mechanical engineer so yeah, you know, the mechanics. We've always got this joke with the mechanical engineers. We then we got electrical to my.

**12:10**

Speaker 1

There's a couple of. There's a couple of recent sort of jests I suppose, or jokes around industrial engineers as well that's been going around with. They're not real engineers. Yeah that's. I mean that's. When are you studying towards becoming a real engineer? But the film become very different and it's been interesting just to sort of pivot off the business. Its been interesting to sort of see the introduction of various fields of study in tertiary

tuition. Things like data engineering. And data science has been introduced in a couple of different fields. Certainly a lot more than it used to be in the past. And I think it does focus a little bit of the. It does focus the shift onto what we're experiencing practically on the ground is the need for making sense of data.

**13:04**

Speaker 1

So that's been quite interesting, speaking with young engineers, to hear about that being introduced in the tuition, which is definitely interesting, but cool. So one of the reasons we said we would love to speak with you is we spend a bit of time with you on site with your team. And there's a couple of things that was very evident to us, I think, dealing with your team, which is what was obviously business related through some of the technology that you're deploying at the moment, but spending time with your team, there was, at least to us, there was a very evident, a lot of evidence around attitude and innovation and a sense of team, which was certainly, first of all, as a compliment. It was definitely a lot more evident that you, then some other teams that we've interacted with over the last little while.

**13:58**

Speaker 1

There was an excitement, there was ownership, and there was forward thinking, and we thought, cool, we've got to speak with Leon. We have to speak with Leon and understand what are you doing different. The second part of that is obviously some of the leadership that you've had with that team. That kind of culture doesn't just exist one day. It comes through years of cultivating and showing the example. So that was the one thing we wanted to chat about, and we'll get to that in a second and maybe we'll kick off with a second. Was around. You know, we spoke typical visit. Nowadays, the first thing that you hear when you start speaking with people, you hear about economy, you hear about supply chain disruptions.

**14:49**

Speaker 1

And then probably again, to some of our international listeners by now, I think if you've listened to a couple of episodes, you would know what load shedding is. We spent a fair amount of time speaking about load shedding, and we thought you have some views on that. And like most other businesses, you've had to pivot and you've had to learn how to deal with some of those disruptions. Economy is macro. There's typically not too much that we can do reacting to the economy. We can just understand how we do things more efficiently and increase productivity, supply chain, maybe there's a little bit outside of our control of that. And then the third one, load shed. But if you can maybe share some of the things that we spoke about and how you and your teams have approached some of those challenges.

**15:42**

Speaker 3

Yes. So, firstly, I think you've probably heard me say this many times, I have the best job in the world. And I mean that truly and every day I remind myself and my team. So we are a young team. I was fortunate to handpick each one of the guys in machi. And if we, you know, we all face challenges. And I think it's your attitude towards the challenge, but let's get that. Let's deal with load shedding. You know, I think that's a big talking point for us. We are. We are fortunate that we don't get load shedding, but we get load curtailment. So we have to curtail, meaning that we have to make up electricity usage that we are going to use.

**16:35**

Speaker 3

And we've got a monthly got to capture that and we've got to stand by it and you have to report on it and send that through to esco to make sure that we are containing. So unfortunately, we have to start up some generators. We've got three one generators that we start, you know, the cost of easel. And then we have to shut down some of our plants, you know, so the heavy users, like the furnaces will have to shut down. And that's how we manage our load. It has a big impact on our production. You know, it is. It is very difficult to manage when an opportunity. Often you get a message saying bug sell 10% or 20% of your load. All of a sudden you've got to decide which machine stops. So we have a manager that does that, Hendrik de Belize.

**17:37**

Speaker 3

And he does a fantastic job at managing that. And then he had send it up on the group and tell us which machines are going to go off. And he asked us when we want to set your generators on. So that's how basically Alan basically managed that than that part of it supply. We lucky enough to get our. We get some of our

material from RBC, which is by Kosthouse, which is not another one of our departments. I used to pay and they sort of buy the. We get the multimeter hot metal from South 32 and then we just cost. So we can't switch off our furnaces otherwise now. But we would go into a low temperature, whatever it is. But it does impact us like any other business. And I really think Hulamin is doing a fantastic job at managing at the moment.

**18:37**

Speaker 1

Yeah, it's interesting when you start hearing that businesses are dedicating people enroll.

**18:44**

Speaker 2

I just wanted to ask, is that a brand new position that the containment officer. Officer. Was it just something somebody kind of inherited and said, hey, I'll stick up.

**18:56**

Speaker 1

Properly as a full time job.

**18:57**

Speaker 2

Probably is a full time job.

**18:59**

Speaker 3

No, sorry. So Hendrik is actually the manager of. He's my boss, put it this way. So his manager of engineering, he's just moved into a neural, which is sustainability manager. But while he was in an engineering manager job, just from his lap, and all of a sudden, it was calling on central to say, hey, guys, I need data to make decisions. We need power meters, and we need information, and I need to put this into a. We need to get this into our historian, and I need to build bi reports. Yeah, dashboards. So we've really come a long way, and. And that's how he manages it. You know, we can. When we put up, when we start catheting and ask plants to switch off, we can actually see exactly how much that plant is drawing.

**20:00**

Speaker 3

And often we'd get the message and saying, hey, guys, I had to switch a plant off, but you still drawing 300 kw. What's happened? You forgot you've lost a pump up. The guys will then react. So, yes, it is a full time job, but he has another job. He has a bigger role to play in Hulamin.

**20:20**

Speaker 1

Just looking after that, isn't it? I love what you said about I need data, if anything, through loads, the ability to. And maybe it was forced, I think for a lot of people, it was forced to understand, you know, where we using energy. Energy is a very straightforward and obvious one. Utilities, where we using it, what is using what percentage, where can we share? Gothel load shed internally, where do we do that? And we can't do that without data. So the ability to put down a device to measure, to understand where that is going through and. But according to that data. Geez. That since the introduction of load shedding, that's been forced on a lot of businesses.

**21:08**

Speaker 3

Just give you an idea. Sorry, Alini, is we have over 350 power meters on our plot.

**21:16**

Speaker 1

Wow.

**21:16**

Speaker 3

Okay. And that's just power metering. And then that's without us measuring our gas consumption. Our biggest consumption of electricity is compressed air, as you know. So we're measuring that. And in the last five years,

that's been made mainly our projects, is monitoring water, electricity, gas, compressed air. So it's exciting, you know, people think that's boring stuff. It's not. God, it's really exciting. If you can't measure it, you can't see it, you know, you can't manage it.

**21:59**

Speaker 1  
Yeah.

**22:01**

Speaker 2  
And Leon, I mean, fair in the wild, you've got 350 energy meters. As you explained, someone needs to make the decision what part of the plant needs to get switched off. I mean, obviously there's a different level of information or data that's required that could be from the supply chain, side orders in the hand. What do I need to get out. When do I need to get out? So you can actually make that decision.

**22:30**

Speaker 1  
You need one view to build, one.

**22:32**

Speaker 2  
View to actually make the right decision, to say, okay, this part of the plot I can actually swing up.

**22:37**

Speaker 1  
It feels like very few companies are in a position where they have one view of.

**22:42**

Speaker 3  
Yeah.

**22:42**

Speaker 2  
Correct.

**22:43**

Speaker 3  
Yeah.

**22:44**

Speaker 1  
I don't know if you. I remember when were there, one of the things you were looking at was. And I mean, it's a simple example, but the ability to light bulbs and the very simple energy kind of uses like that around your facilities is to get a view of that, to bring that in, maybe have some kind of Iot switching on off smart capability around lighting. You know, that's. I heard you guys speaking about that. And the ability to bring in, which has historically been IoT devices, the ability to bring that into your view, into your office, onto the dashboards that you. That you have in your office, that historically has been measuring the ot side of your business. You're right.

**23:33**

Speaker 1  
That is exciting, because that is something new to a lot of engineers that they wouldn't have done at least not five years or ten years ago.

**23:40**

Speaker 3  
Yeah. You know, that. That came about. It was very hasty, and were sort of looking at. You know, when you work for a corporate company, everything takes time. This type of work needs be it. Everybody has to have input. And I started this little project at home with son of devices. And I don't know if you guys know the son of devices, but I'm very fortunate. I've got a smart job, and I've built up a smart home through this. And I came to

a, proposed to my boss, said he, look, listen, this is what I've done at home. Maybe we could do this and start a pilot project in our office. And he agreed. So got some of these little son off devices.

**24:28**

Speaker 3

You know, we take off the proprietary software and call it tasmanize it, so all the information stays within the recovery on limits. Put a good way. And we started. Yeah. So in our office block here, we switch off all the air conditioners at a certain time, and we should switch one in the mornings at a certain time. So we've got a. We've got our lights that come off. That's all on sensors on and off. So we're doing that a little bit, and we want to roll it out to the rest of the block. The problem is that we've got so many other projects that are probably more important than this. So this is our little hobby, technology. I'll be with in our department that we get to work on every now and then, you know?

**25:15**

Speaker 1

Yeah, I love it that you at least have the option to do that freedom. You know, you mentioned it, a corporate business. And I think very often with a corporate business, it's almost not the culture, and I can't imagine that it would be purposely done or knowingly done. But very often what happens with the corporate is almost the sort of diminishing of or removing innovation, because anything that innovates, that moves quickly is often not easy to control. And a lot of corporate environments, innovation and the ability to give teams the freedom to do stuff like that is usually not given or encouraged. So the fact that you can do that within your business, it is exciting, it's new, it's different. It's connecting little switches and things and devices into a central system, and it's also a good distraction sometimes from other things.

**26:17**

Speaker 1

But yes, there's always a couple of projects happening at the same time. Which one is more important?

**26:24**

Speaker 3

You know, it's. And you know, when you start. So I cannot remember the last time I actually had to flash, because that's what you basically do, you flash. I don't know if you come from a historic background, you know what flashing is? You know, flashing old asses. And that's basically what you do. And you show this to the new young engineers and the guy's like, oh, what is this one of buttons? Well, you know, this is how you should solder the wires together, flash the software. There you go. And, yeah, gives us a bit of perspective of what we did those days and what you can achieve now. Yeah. So, you know, you saw our setup here. We've got the two big screens, and we've got about 812 screens that we look after the plant.

**27:11**

Speaker 3

And one is dedicated beauty just for our Haz system, which is, which controls the lights and the air conditions.

**27:18**

Speaker 1

Air conditioners in our space, definitely. Now, it's a very cool setup, that it's a control room. I mean, it's just literally dashboards and screens all over the place. And I think were going through some of those dashboards when we spoke about technology and we spoke about. A couple of things came up, how the impact of technology has changed. Sorry. How the impact of technology has varied over the last little while. We spoke about the cost of technology and how to maintain the technology with certain cost constraints. And then we spoke a little bit about scalability, you know, the ability to add things to an existing system, to introduce things to an existing system at a lower cost or not necessarily occurring, more cost by introducing new things. And how to keep all of that within annual budget. So that was an interesting discussion.

**28:26**

Speaker 1

And I think the challenges that you have are very similar to the challenges that other people are having. How to keep the business resilient and sustain what you have and know what that cost is going to be annually. And if you want to add something, having the ability to add something, and if you want to introduce a piece of technology to know how much it's going to cost and what it's going to continue costing you over the next little while. I think that kind of channel to something we spoke about, Yana, what we've.

**28:57**

Speaker 2

Seen in different corporation violence as well. For some of these, it's just a tick box to say that they've done the investigation. That was their KPI for the year. I've got this IoT project, I investigated it, I looked at the random sense. At the end of the day, it's, yep, you did your job, you ticked it. But to actually have the freedom to then after that actually introduced the tick. I think there's a huge gap in that space as well.

**29:23**

Speaker 1

Yeah.

**29:24**

Speaker 2

And the fact that you or your manager Leonid, the capability to say, yeah, this is something, let's do it. I mean, a son off switch, if you think about it, you're 100% correct. It's a home device. Right. It's got nothing to do with really industrial automation on that type of sense of scale. But for you to realize, hey, for BMS or for building management, this is great, man. That was really awesome.

**29:48**

Speaker 3

Yeah, I'm, you know, I'm very fortunate to work with somebody that also loves technology. You know, I think in our space, whether, and he's a mechanical engineer, by the way, he's a fantastic mechanic and he embraces technology and he's always willing to lend a keen ear and also advice, it also helps, you know, you have to work with like minded people. I think that's why I say I have the best job in the world, you know.

**30:18**

Speaker 1

Yeah. And one of the things that you've done really well is we often see it with digital transformation. I think we speak about digital transformation in every episode. You often see with digital transformation anything that involves a digital switch, whether it's removing a paper trail or a whiteboard into a digital dashboard, anything. Very often the scalability is the problem because of a couple of things. The first thing is access to data, to actually understand what we're doing? Is it making a difference? And if we don't have the data available to understand if what we have implemented is making a difference, it's not going to move forward because we can't prove that we're actually getting the benefit from what we're doing. So that's the one thing that at least we typically here from digital transformation projects.

**31:13**

Speaker 1

And the second one is, now that we've implemented this, we understand the value. We want to go on a much larger scale within the business. There is something that is holding us back from actually scaling to the entire business, whether it is the cost of a license, whether it is the cost of a device. So those are two of the things that we typically find are big challenges for digital transformation. I think you were able to prove, and not only prove, but implement with both of those as return and not just challenges.

**31:49**

Speaker 2

And the fact that you're closing the loop, I think that, for me, is the biggest one. We see a lot of these solutions where we want a dashboard. In this case, like Leon said, if the pump keeps on running, these managers on MNH in five minutes. So, closing the loop. And I think we've mentioned this example hundreds of times on this podcast. Jak, is that classical one with the Samsung smart fridge?

**32:12**

Speaker 1

Yes.

**32:13**

Speaker 2

When a store fridge IoT enabled, it will let you know that the fridge.



**32:18**

Speaker 1

Is open and how many times it's been. And how many times, you know, how long it's been.

**32:22**

Speaker 2

And this one guy replied on the. On the tweet. I think it was on Twitter.

**32:25**

Speaker 1

It was a trans LinkedIn I reached from a couple of years ago by saying.

**32:28**

Speaker 2

And then the guy just said, well, if it's that smarter than it, just close the door.

**32:33**

Speaker 3

But, yeah, it's the.

**32:36**

Speaker 1

It's the actionability.

**32:37**

Speaker 2

Yes.

**32:38**

Speaker 1

I think that's the nice way. It's. It's great to get access to data. It's amazing to get insights and dashboards and things that you haven't had before. But if there's no actionability that follows the insight that you're getting, then it's a little bit pointless. Yeah.

**32:55**

Speaker 3

Yeah. I just want to follow up on that to give you a bigger picture. So we are central engineering department. You know, we've. We've learned through the years basically what works and what doesn't work. You know, there'll be enough credit card. Like, I would buy a valve, for instance. You know, that wasn't the past. And then they tell us they want information on the valve, and the salesperson has sold in this particular valve. It said, no, you can get the data. I need to find out that it's actually, you can't get the date. So as a central department, we actually started setting standards and said, listen, guys, if you've got a particular job, we want Modbus on that, otherwise we're not interested. You're not going to order that. If you're giving us a 40, 20 million signal.

**33:42**

Speaker 3

Just, you know, we want an intelligence thing. We don't just want, we want to get more information at that. So that should become our standard human saying. If you're doing a project, if you're adding anything else, our capex process, when it comes to various religions and lads on my desk and one of my responsibilities, to see what equipment is the guy buying, can we interface with this equipment? We're talking about all this data. It goes into a historian, or we have two or three of these, and no one knows how to access this data. So with having a central department now, we are sort of cleaning all this data, we cleaning up this pathways, you know, so from multiple dirt roads, we recreating one single highway, if I can put it that way.

**34:33**

Speaker 3

That's a good knowledge, and that is exciting in itself, because you will be surprised how much exploitation is out there that you don't even know. You didn't know it before. So it's just coming back to your original discussion.

**34:50**

Speaker 1

Definitely. Data silos. I think data silos is the enemy of transformation. And two things that you mentioned, which is super critical to get that one view. The first thing is open protocols, open standards, Modbus OPC, ability to connect SQL databases. I think the days of a specific piece of equipment or technology, almost not by design, but through design, capturing data and almost holding it. Ostension, your ability to get access to the data, I think those days, it feels like those days are limited. And I think people that still design with that in mind, it certainly won't be sustainable for them or their solution. I think it's based on the ability to easily and quickly get data, and we do that by open protocols and systems. Something like Modbus, for example, that's become a stronghold in many industries to get that data. Okay, sorry, Dani.

**36:00**

Speaker 2

And maybe I think we, Leon mentioned that it's not just on the instrumentation layer that we need to think about this again, a lot of education and a lot of ways of, now that the data is in these extorials, how to access it, how to get it out. You mentioned, Leon, that people don't even know the data is in there. They don't even know how to get it. I think in the past as well, it's been a bit difficult to get data potentially out of historians. But again, on sets of open standards, SQL, et cetera, it should be very easy these days to get access to your data.

**36:38**

Speaker 1

And modeling of the data is something where there's a lot of focus at the moment. How do we model the data? And that way do we do it?

**36:44**

Speaker 2

And that's exactly what the central team has done here. So they're busy with that cleansing exercise, getting everything in one place so that people can access it and get it from one place. I mean, we've said it so many times, modeling sounds like a very serious task, but something as simple as a range on a tag or engineering unit can make a massive difference on how people interpret that data and what the data actually means. The modeling can be as simple as that. Just make sure that the tags are correctly arranged, scaled, a proper unit of measures.

**37:17**

Speaker 1

Well, you can't do that. You can't standardize data if you don't do that 100%. Now, are there any.

**37:25**

Speaker 3

Sorry, just, yeah, just. I love talking about data. We, so I'm quite fortunate because I, an industrial ITT, you know, so industrial it, I don't know how many companies have an industrial it, and then we have our commercial it does, and we work very well together. So, you know, what is, what makes a good industrial it guy is one of my, Dennis. He's got an instrument Asia background. So although he's a system engineer and he's in his quantified meat, he did his trait. So he knows exactly when we start talking about devices in the field. You know, you don't have that separation speaking to a commercial it guy that doesn't know what's four to 21 doesn't know that. So we're very fortunate to have both put this team together and we work closely with the commercial. It's fair enough.

**38:26**

Speaker 3

I just had a meeting this morning with the commercial IT manager, and were talking about this data and artificial gauges that we want to apply and how we're going to apply it, and data scientists, because we had this data. But it's no use employing a data scientist if he doesn't know your process. He needs to understand the process. He needs to understand how the machine works. Otherwise, the date the data is going to be time to be interpreting or pulling through, it's just going to be data, you know, and also the ARIA models, I mean, you know, that's we, like I said, we are living a fantastic time. There's so many opportunities out there. It's such a thing.

**39:10**

Speaker 2

When you spoke about, when you showed your engineers flashing. Flashing an EEPROM with probably an FTL from your. From your neck stuff, they were kind of shocked. Now, think about getting a process guide that knows a little bit of programming, that understands data and high data science. I mean, it's almost like a unicorn that you're looking for in. And that's the type of person that we. When we look for someone to employ, that's. That's something we look for. This process guide that understands process, can do coding, and understand data science. It's a very good opportunity for someone to get into that space.

**39:49**

Speaker 1

Yeah. Or if you have that within your team, I think for people out there that are trying to understand what is the ideal team look like? What is that team made out of, if you can, maybe, at least in our opinions, your team, the interaction we've had with your team, it seems like the ideal team in the sense of capability, skills, and experience. So, Steon, is your instrumentation or your historic? Your instrumentation guy.

**40:18**

Speaker 3

So Stan of my is head of my industrial, but he had done it. He had done his finish at. I can't remember. I think it's a little Newcastle. But when I started this, I'd work in projects, and I'd seen him in projects, and when I started this department, he had left Hilleman. And one of my requirements was, I want him. This is the guy that we want, and I was lucky enough to get him. So how my team is made up is, I have the industrial it guys. There's four of them. And then I have automation technician. And Nikita, she's unfortunately on the country, a fantastic individual. So very keen. I have two drafts guys. One is a specialist, Carl, and he just hones in on drafts. He'll fix it down to component level.

**41:12**

Speaker 3

Bonelo is more of a generalist, and he sort of does a bit of automation. Also more focusing on drafts. But when I see potential, somebody, or if I see somebody's taking interest, especially now that we can talk about ignition, that we are running out, guys are showing interest on that. Guys, you know, I'll push him. Put your hand up, and I'll help you along. We can talk about Aldous, who's just taken this ignition by the horns. And then he's done some stuff, amazing stuff out there. And to get the guys interested, I started gamifying this whole know. I think if you talk about challenges in a corporate business when running factories. Hey guys, you know, I've got this new piece of equipment or piece of software. I think it's a good thing, but what do you think?

**42:07**

Speaker 3

And the guy, it's just too much work. My guys embrace now you embrace it. Hey guys, this came to fight, you know, let's see who can do the best little project and we reward the guys. So, so that's how I keep my guys interested know and they keep me on my toes because hey, you know, you can't just sit in the office and nothing. You need to get on this as well. So that's how we functions, you know, and we feed off each other. You have to feed off each other.

**42:37**

Speaker 1

Yeah, definitely us. I think that the, I almost want to call it fun having fun. And, absolutely. We, we felt that when interacting with your team and it's especially around young people and young talent. Talent is, or resource availability or scarcity or whatever you want to refer to it. I think everyone's looking for experienced people and the challenge is experienced people and experienced resources. But the bigger responsibility is to help learning of people. You know, if nobody is going to have an environment where innovation and learning is encouraged, and almost, not only encouraged, but almost, it's a given that you will innovate and learn. Where do we expect that learning to happen if we don't do it?

**43:29**

Speaker 1

We all want to learn skilled and experienced people, but if we don't create the environments for that learning to happen where those people going to come from and very often fun is such an important aspect of learning and sharing as a team. You know, if you're not going to have fun, then it's not fun if you don't have fun and you're certainly not going to learn as much. So, well done.

**43:56**

Speaker 3

I asked my team, I asked my team to dedicate at least 2 hours a week just on doing something, learning something new. You book those 2 hours out and you sit in front of your computer and there's so much, you know, it can happen. YouTube videos you can watch. So I think that also, it's also encouraging encouragement, you know, for them to grow within their own space as well as also see what's happening. Guys bring me ideas all the time, which is great.

**44:22**

Speaker 1

Yeah, definitely. I think somebody like Elvis has done that. Exactly. You know, he's taken a few mentioned aggression. He's taken the ability to create any kind of application and I. It's given good ideas or direction for the kind of things that you can do that you didn't maybe think about in the past and including different aspects outside of just the control of a machine or a piece of machinery and understanding what else can we do with this technology. So he's done an incredible job with that artist and he definitely won the competition. He definitely won the competition. So well done, Leon. Are there any projects or things that you're doing at the moment that you're excited about or your team is excited about things that you getting involved in upgrades, switching over anything that you're looking forward to over the next couple of months?

**45:19**

Speaker 1

In the short term, yes.

**45:22**

Speaker 3

So we've moved from more of a service department to a project department. We upgrading our next month. We're upgrading a slitter. So it's a complete from the HMI drives PIC's, it's OEM upgrade that is, that's happening. And then we've got a machine stopper that we busy also upgrading that should be ready towards the end of the year. And then I have, you know, our plant was upgraded and we did a big expansion in the two thousands early, late nineties, early 2000. So generally our equipment, our draft equipment is of the same age. And unfortunately they sort of went into, you know, the classic obsessions, fans at the same time and the obsessions and you can't get spans. So through the vision of our CEO and I think our executives, they have realized this and they've given us the opportunity to upgrade this equipment.

**46:31**

Speaker 3

And we've got a ten year plan. So for the next five to seven years at least, our capex is on Hopper. So we're going to be busy upgrading and it's going to be fantastic. New equipment on site, new learnings. So yes, we are flooded as projects at the moment. I'm going to have to grow my team a little bit. Got another project engineer that's going to come on board. It's exciting times for us at unemployment. What's the space? Unimaginable. It's a good company. And yeah, let's visit. You'll see some more stuff on site.

**47:10**

Speaker 1

We're looking forward to it. You mentioned artificial intelligence and I think the. I don't know, maybe that's a topic for another discussion. Just throwing AI or machine learning, for example, is a subset of AI. Let's do some of that. It'll give us insights. It doesn't feel at least what we've seen is that the approach to that is not as simple as just throwing something towards machine learning or some kind of hyperscaler AI technology there. So there's a bit of a process to go through before you can do that, before it becomes valuable. So that's going to be an exciting one as well.

**47:55**

Speaker 2

That's where I think you guys are doing it. Right. I like this whole notion of an industrial it guy.

**48:01**

Speaker 1

I love that industrial it. Yeah, definitely. Yeah. And I. Obviously those folks have to work very closely with the

commercial it people. And it does make one team, one virtual team. It's one team. It has to be. But I love the focus on an industrial it team. I think it's a great idea. We're doing that.

**48:26**

Speaker 3  
Cool.

**48:27**

Speaker 1

So we definitely got to watch the space Leung. Thank you for chatting with. Usually on the episode, something we introduced a little while ago. We'd love to understand what people read, what they watch, what they. What they listen to is a book, a podcast, a website, anything that you are reading, listening to or watching that is worth sharing with our community.

**48:55**

Speaker 3

Yes. So I don't read much. I read a lot. I don't read books. Not a. I'm nothing. I read engineering magazines, put it that way. Love Engineering magazine. I think you learned. You learn a lot from that. I love podcasts, so I don't. On the way to work, I do not listen to the news or do not listen to anything else. I'll put in. I select a podcast and I listen to podcasts, whether I think chat, as you said earlier, chat is a big thing. I'm listening to the chat podcast, which is very interesting. And then, you know, Twitter, you know, I think Twitter is a good form of information and you always have to. What I like about Twitter is it gives your own expectations and you make up your mind on things.

**49:48**

Speaker 3

You don't get forced and then, geez, I don't think anybody can go without music. So, you know, my apple music is raining all the time. I won't give away my playlist because it's only give away my age. But I think, let me.

**50:05**

Speaker 2

As long as there's some Jimmy Hendrix and some black Sabbath, I'm happy.

**50:08**

Speaker 3

Yeah. Metallica. Metallica. Metallica.

**50:15**

Speaker 1

Awesome, Leo, thank you. Thank you very much. I love that. I think you're 100% correct.

**50:20**

Speaker 3

I.

**50:20**

Speaker 1

There is so much risk of misinformation today in our world that it's super important for you to have your own opinion. The availability that we have to just different sources of anything, information. It is very important to have your own opinion about things with every. Everything is available to us today as a source of information or news. But yeah, I've been enjoying a couple of conversations on threats, at least not only on Twitter but also on LinkedIn. Also try and avoid the news, Lenny. There's nothing, especially the Sunday evening news that we get through a magazine program that we watch on tv. This is depressing.

**51:12**

Speaker 2

Yeah, I maybe on the music topic, I actually, sure. I actually traveled a bit back in time, so nothing to do with my age, I promise. But I am back in the fifties and sixties technology, when you talk about music, I am busy building some valve, some old tube valve technology preamps for me, for my system. So that's what I'm

currently busy with. And it's quite amazing. All I can say is the guys knew what they did back in the sixties and fifties.

**51:42**

Speaker 1

Absolutely. The tubes quality is, the quality is.

**51:46**

Speaker 2

A different level altogether. So yeah, I'm stuck a little bit back in 1950s tube tips tube. So to create this means that. But yeah, that's what I'm busy with.

**51:56**

Speaker 1

As long as we're doing something, creating something with our hands, it feels like it's something that's disappeared from our culture and our communities. The ability to create something with our hands. So it's cool. Nice lady. Thank you very much. Any closing comments? I would imagine we could share your contact details if anybody wants to get in touch and maybe have a question for you.

**52:18**

Speaker 3

Well, definitely, you know, what we didn't touch was at a community. Yes, that is a podcast on its own, you know, with manufacturing, and we're all developing on our own spaces. I think if different manufacturers could get together. In the old days, we used to have like sort of a community that the guys used to get together, share, that's all. A platform like this, I think it's fantastic. But fuzzy statements. I just want to say thank you, Jako. Thank you, Renny. Cool. We appreciate the invite and yeah, good to chat to you soon.

**52:48**

Speaker 1

Thank you very much. And I mean, that's what community is about. You know, community is about giving. And I think as soon as you start focus on just taking, that's where you lose the community. You know, we all here to learn and share with others what we have learned and that way the community will become stronger. So thank you for the chat, Leon. We will be sure to share your contact details of anybody. I'm sure there's going to be somebody that has a comment or a question, but thank you for your time and all the best for the next couple of weeks.

**53:19**

Speaker 2

Seven years of projects.

**53:23**

Speaker 3

Thank you very much.

**53:24**

Speaker 1

Thanks very much. Cool so that was episode 31. I think for episode 32 we definitely, we are looking at a couple of we're not the experts. Again, we often say that we're not the experts in many of these things. I'm not sure that anybody is an expert today in chat, GPT and how we interface. I think there are a lot of people that claiming to be experts, but we want to have a conversation with somebody who at least has been spending a lot of time with understanding how to utilize some of these new technologies as a tool. It's been a lot of discussion. I personally don't believe it's going to replace people.

**54:03**

Speaker 1

I think it does have the ability to replace people that don't know how to use it to honor something like chat JPT, but it certainly becomes something that most of us are using every day. So I think for the upcoming episode we want to line up some people to share some of their learnings around chat, GPT and especially in our world, industrial world of coding and developing things. So that's something we're going to cover in the next episode or next couple of episodes. On the flow side, you've got a release coming up pretty soon.

**54:33**

Speaker 2

That's correct, yeah. So from flow software we are in a carrot resist release cycle, just finalizing some QA, last QA and testing. So yeah, watch the space. Next week or so we'll be off with a brand new release. Again, the whole notion of churning data into information. We've included some functionality around raw data transformations that we can clean the data much more efficiently. And there's a few nice features around that before we turn it into information. So yep, watch the space from the flow side on that new release.

**55:09**

Speaker 1

Nice. Always excited about new releases and new release brings something new and then probably one of the next engagements we will be at the afric automation fee. We are exhibiting. We super excited to be exhibiting with our friends at Stratos Technologies. So we will be at the Africa automation fee from Tuesday night to Thursday the 11 May Stan 504. So if you're going to be at the Africa automation fee where you looking at being there, please pop in and say hello. We'd love to chat and meet face to face. That will be our next engagement. But otherwise, thank you very much for listening, as always.

**55:50**

Speaker 2

If you guys got any topics or persons or people that we need to or would like to interview, please let us know at podcastelement eight cu zen.

**56:00**

Speaker 1

Fantastic. Thank you for listening and we will chat soon.

**56:03**

Speaker 3

Everyone. Cool. Cheers everybody.

**56:04**

Speaker 1

Bye bye.