00:09
Speaker 1
Hello and welcome to the Human and Machine podcast, the show where we explore the relationship between man and machine and the industrial and manufacturing world, the challenges and opportunities we face, innovation, and of course, we speak with the brilliant people leading the charge and the change. With your host, me, Yaku Marquat.

00:27
Speaker 2
And me, Lenny.

00:28
Speaker 1
Lenny Smith. And this is episode 29. Lenny, welcome back.

00:33
Speaker 2
It almost feels like you're a stranger to me. Yak. It's only our second episode this year. It's been a little bit of a chasing the tail year, to be honest.

00:41
Speaker 1
It has, which is good.

00:43
Speaker 2
But, yeah, from a podcast perspective, I think we probably need to gear up a bit.

00:48
Speaker 1
Yeah, definitely a lot happening in the world, a lot happening in our industry. As Lenny said, it's been a roller coaster year. Only the second recording for this year. We do apologize for that. We've got a couple more scheduled, so our frequency is definitely going to pick up. But it's been a productive year so far, 2022. It's been crazy things happening all over the world, but we're all busy, which we're grateful for. And yeah, if you join us for the previous few episodes, you'll recall what we've been doing, or at least the content of the last two or three episodes. We've been exploring the role of data and information in digital transformation broadly, but also the importance of automated data collection, cleansing, contextualizing and serving the data as valuable information to the right people for time critical decision making.

01:43
Speaker 1
That's really what the last couple of episodes have been about, and ultimately moving from data management to data operations. We spoke with Carolina Torres from cognite and discussed why data is a sustainability problem. That was episode 28. Really cool episode with Carolina, if you missed that.

02:00
Speaker 2
Yeah. She's got a brilliant way to describe the difference between data management and information. It's quite insightful. Definitely go and listen that you can.

02:11
Speaker 1
Share what there was. I recall there was the water exam.

02:13
Speaker 2
The water, yeah. So if you think about data management, is the whole concept of where do I steer the data, how do I store the data, how fast do I store the data, when do I archive the data, how do I manage all this data? And we need to move away from that kind of scenario. It's like your house, right? If you've got plumbing and everything that needs water is connected to that.

02:38
Speaker 1
To the water mains.

02:39
Speaker 2
To the water mains. If you get a new fridge that can make ice and you want to hook it up, you're not going to go and drill a new borehole or add another well, from that perspective, rather use the information, the water, the information, or the data that's on tap, literally, and just hook it up. So, moving away from having to worry about another silo of information and rather using the data that's already available for you.

03:05
Speaker 1
Yeah, I love that example. It's a really practical way of thinking about data. And from a practical point of view, it gives you probably a realistic view on what a data lake is. You'd rather get data from a tap, from mains, than from a lake anyway. But, yeah, that was a very cool discussion with Carolina Torres from cognite. And today we're excited to reach into some of the more practical aspects of this challenge. And I think we're going to especially talk about what that looks like in the food and beverage manufacturing world.

03:38
Speaker 3
Yeah.

03:38
Speaker 2
Especially around utility management as well.

03:41
Speaker 1
Definitely our utilities and energy. So we're not experts, of course. So joining us today is Robert Aubrey, the owner of next integration. Rob, welcome to the Human and Machine podcast, and thank you for joining us.

03:52
Speaker 3
Yeah, thanks, guys. Thanks for having me online. It's great to be here.

03:56
Speaker 1
You're joining us from Cape Town. I hope the area that you are. I hope the baboons are not terrorizing you today.

04:03
Speaker 3
Yeah, no, it's a lovely day in Cape Town. That's how it goes. Baboons are safely on the mountain.

04:13
Speaker 1
This is not our first attempt to record an episode with you, Rob. The first one was in person, which didn't happen. We ended up having a couple of beers instead.

04:25
Speaker 3
We had a good chat, didn't we?

04:27
Speaker 1
The conversation would have been an entertaining podcast, but we didn't record that we had beers instead. But, yeah, this is our second attempt, and I'm glad that we all found the time to chat with you. Sarob, can you maybe share some of your industry background and experience and next integration and what you're all about?

04:47
Speaker 3
Okay, yeah, sure. So my name is Robert, and I basically run next integration with business partner Justin Slubber, who's up in Joburg. And we focus on bringing data to management and to the key decision makers in the plant. And not just management, but also to the shop floor. So we really focus on kind of bringing information from the machines to the decision makers and making sure that everybody has the right tools to do their job. Now, we've focused a lot based on my experience and Justin's experience in automation and my experience in running larger production facilities, on bringing utilities data forward and bringing production information forward, and really making that as relevant as possible and contextualized. As possible. And we've used a lot of various different tools to do that. Obviously, the elements eight package is great for that, but the problems are diverse.

05:52
Speaker 3
And I think there's so much need for this at this stage of the game. It's amazing.

05:59
Speaker 1
Yeah. We've come to know you and the team as specialists in, obviously, manufacturing and information systems, but specifically utilities management and water and energy reduction. There's a lot of opportunities there.

06:13
Speaker 3
Yeah, sure. And I think just from my past, to talk a little bit more about that. Spent ten years at the breweries and focusing on and being kind of the stakeholder or the key role player for optimizing water and electricity usage. And that's kind of been the fundamentals of how we've kind of driven towards running next integration and running it in terms of optimization and focusing on what do the decision makers need to see and what do they need in front of them in order to move forward and reach their targets.

06:53
Speaker 1
The food and beverage industry, as we all know, it's a high volume, low margin business. And by aiming at these energy and utility uses and usages, I think they can reduce costs, increase their competitiveness, and obviously, for the more mature business, meet their sustainability targets. And in the chat with Carolina, we spoke a little bit about the role of culture within business. And I think while energy management is considered a key pillar of a sustainability strategy, there has to be a sustainability or an energy culture within a business as well. And a lot of that in order to have that kind of a conscious view, to your point, that every stakeholder from the boardroom to the manufacturing floor, they must have clarity in understanding why decisions are made and how, and what they can contribute to the success of that sustainability or energy goal.

07:52
Speaker 1
And for that, they, of course, need data.

07:56
Speaker 3
Yeah, quite right. They need accessibility to that data, and the data is often there, but they just don't have the tools to get it out in the way they want to see it. So it's important to work that, and there's so many great solutions out there for that. That's really what it's all about. And then helping to make the decisions and helping to contextualize and create a target. As we was discussed with Carolina, you don't know where you are, you don't have a reference point, you don't know what the benchmarks, what you should be looking towards, which was so true.

08:43
Speaker 2
So, Rob, maybe take us through that process. Yeah, I know there's probably a lot of steps in the process, obviously. First one is you spoke about the data you spoke about data not being accessible. My intro line was this whole concept of a universal tap of data on a plant floor. It's not probably that simple and that easy. So

maybe if you can typically paint, what's the reality, the data landscape on a typical site, and then how do you go to do a little bit of baselining? How do you go then to. I mean, baselining is one thing, but then obviously it needs to be coupled to some other know. This is probably going to be a long answer, but maybe just take us through that process. Let's start from.

09:32
Speaker 1
Lenny and I are part of the technology provider crowd. You're on the integration side, so for you're probably a lot more closer to what the reality is and what you find when you go to some of these facilities.

09:46
Speaker 3
Yeah, and you know what? There's such a diverse range within South Africa and within the world as to where everyone is on this journey. And you've got certain stakeholders that have just had utilities on the side and just made sure that they've got what they need to do their job to produce what they need to produce. And then you've got some of the larger players who are right down the line. They've got 200 and 5300 meters on their plants and they've got them there, and maybe they're using them, maybe they're not, or maybe they're partially using them and 100 of the 250 are not working, for example.

10:29
Speaker 3
So you've got such a broad spectrum of role players, and then you've got the real kind of top end companies that are monitoring and measuring everything and alarming and responding to high usages within an hour or within a few minutes if they notice it based on specific alarms. So we do have a huge landscape, but what we find the majority of the time is that there may be a handful of water meters on a site or electricity meters, but they totally and utterly underutilized. And the opportunity is phenomenal within the cost opportunity and the savings opportunities. And so coming in there, the first thing we need to do is, was discussed so many times. You can't improve what we don't know, or we don't know where we are, so we need to get the meters in there.

11:19
Speaker 3
We need to get meters installed and meters communicating. Whether it's just physical meters and somebody walking around and taking a reading once a day or once a week, that gives us some information and that's useful. It's certainly a lot more useful than nothing. And then we can transform it and we can bring the data through, whether we use the new kind of IoT ways or the kind of traditional ways of hardwiring everything through and get the information through to the two, a central system and generating some basic consumption reports, that would be the first port of core. Once you've got those consumption reports, I think the next most important step is to really try and contextualize that. So bring that into a useful metric. Let's take an example. So we've got a small factory and say we used 200 water yesterday.

12:19
Speaker 3
Is that good or bad? We don't know. Depends on how much we produced and what we are producing and what machines we've got, what technology we've got, et cetera. There's so much context to that. So it's absolutely key to not just have an input of what your consumption is, but also have a metric of what we are referencing it to. So how much volume did we produce? Whether you get those numbers from SAP or from your kind of manually entered entries or whatever it may be, it's valuable to get that input so that we can start metering it and we can start contextualizing that and really bringing it forward. And then at least we've got a ratio. And maybe now we know we used three liters for every liter of product we produced or every kind of widget we made.

13:13
Speaker 3
And we know that was quite good or quite bad. And we can kind of start to have a look at that, and we can start to generate a reference point. Having a bit of insight into kind of, your question leaded further around, kind of how do we define benchmarks? Or where do we go with that? And obviously, the larger companies have their own benchmarks and their own standards, but within each industry there are also standards and benchmarks. And a lot of the time, if you don't know where to go and start looking, just go to the oeMs, have a look at what the new machines are doing. The oems will know exactly what they're producing. So that's a great starting point. And then you know how far you are off. And it helps to justify whether you should be upgrading your facility or not.

14:02
Speaker 3
Maybe it's got a payback within a short period of time based on even just your utilities. So you've got to really take a look at it holistically. And those would be your. It's so simple, but it's so fundamental to finding it. What I'm doing is, for example, we've got various different. I'm going to a facility this afternoon where we have no idea. We don't even have any idea what the benchmarks are. We don't have any idea where we started. And so it's an initial visit and you kind of arrive there and you see what you see and you kind of decide, okay, cool. We need to put in a few meters.

14:46
Speaker 3
But the first thing is to kind of assess what you can look at your municipal bills as well, and you can kind of see where you are from, those kind of key utilities. And then you can jump in and you can say, cool, guys. So we producing this much product, we produce you using this much utilities. Let's put in these meters. Yes, it'll take a couple of months to get it all in and working and 100%, but in the meantime, these are your quick ones and you need to be able to identify that as well. So I think that's kind of maybe my answer to your question, does that make sense?

15:23
Speaker 1
Absolutely.

15:23
Speaker 2
Robert, I love the way that you, because the way that you explained it almost ties in exactly with a webinar I did a few weeks back where I explained the different analytics pillars. The way that you explain it going from just get a basic consumption report. That is what we call diagnostic analytics. So that is looking at your historical information to understand how much did I actually just consume past hour, past shift, past day. And that is the base layer of that type of analytics. And very important, yes, you will have some cases, there will be manual data, but at least the calculations and the transformations that you do on that to give you that consumption report is now institutionalized. And what I mean with that, it's every day it's going to execute the same report and you're going to get the same result.

16:20
Speaker 2
So when you standardize that and you have an operational view that every day you will have that consumption report, then you're on a good way to do your diagnostic analytics. And then the second part that you spoke about is now getting all of this other metadata or context associated with it is then exactly going into the second step, which is what we call descriptive analytics. So this is now where you say, okay, I understand what my consumption per shift was, but what does it relate to, as you said, product line, machine type, operator, on the line work order that I'm running. So there's so much other factors that can influence why your consumption is up or down, and try to understand that worth adding this context is absolutely, yeah.

17:13
Speaker 3
What we also found with utilities is that there's a certain baseline consumption which you almost need to negate. And then you can do a slightly smarter ratio. If you take that into consideration. The lights on is going to take us, but delta run our machines efficiently. Is that.

17:37
Speaker 1
That's almost your second and true baseline?

17:39
Speaker 3
Yeah, but so important, as you say.

17:44
Speaker 1

You'Ve had the luxury of. I mean, your experience spans from some very mature brewing operations to a lot smaller manufacturing type facilities. So a couple of areas. The first thing is, would you say that there are some common challenges, regardless of size or maturity?

18:06
Speaker 3
First of all, absolutely. The first one is consumption of it.

18:13
Speaker 1
Okay.

18:15
Speaker 3
You got to have the people wanting the data. And I think that's fundamental. I mean, as was discussed, I think in the last session as well. It is a people problem to a large extent. And it's not necessarily a problem. It's a people kind of challenge. We've got to really all be in the frame of mind that we want to optimize this. We want to improve. And it's not only at one level, it's throughout the business as well. And that you find from the big companies and corporates, definitely, it's absolutely key there. But it's also so important in the smaller operations. If you find somebody who's running a small operation and you can tell immediately when you walk in the door. And I do. I know, because it depends on what their level of interest is in the topic.

19:16
Speaker 3
And you can see whether it's going to be a success or not. And sometimes you got to bring the financials in there, too. You got to show them that. Okay, so there's no budget for this, but what are your consumptions?

19:31
Speaker 1
Absolutely. I was going to ask you about the quick wins. I think that's so important because even though we're talking about the drive towards green and there is still an ROI and a business case that has to be presented regardless of the sustainability or the more philosophical kind of. Maybe it's still an ROI and a business case.

19:55
Speaker 2
It's exactly what I want to ask. I want to ask about. Obviously, a lot of companies will do this for cost reduction. Rob, are you seeing that companies are also from a social responsibility perspective, that a company, as you said, from the top to the down, that I almost want to say that the company's motto is becoming, let's become more sustainable. I mean, especially in South Africa, we've got a lot of problems, right? We've got water problems, but from a world perspective, with the whole greenhouse gas and global warming kind of thing, are you seeing that companies are obviously doing it. Obviously they're going to do it for cost, but are you seeing that the sustainability drivers coming through from that perspective as well?

20:46
Speaker 3
Look, I would say absolutely. There's a lot of emotion behind it, and water is a great example of this because water is often quite hard to actually get as good a payback as you would for an electricity or a steam or various other thermal projects. But there's a lot of emotion behind water at this stage of the game. And where we are and depending where you are in the country, I know Port Elizabeth and so on is particularly stressed. And there's so many different countries around the world that are so stressed from a water perspective, South Africa being one of those. So absolutely. I think there's more than just the financials behind it. And this is across from the small through to the larger. I think the larger corporates definitely have.

21:37
Speaker 3
I think emotion and kind of the socioeconomic impacts play a bigger part there. But you certainly do find it even down to the smaller players where social economic impacts are, or social impacts are substantially increased in weight. Yeah, so I think it's not just a financial, but we definitely find it very easy to justify projects. The most difficult to get some people's heads around is justifying metering, but you cannot optimize until you are metering effectively. That is the concept that you've just got to get your head around. And it's not necessarily

cheap. It can cost multimillions to put in the right meters in larger facilities. So you've got to get the right stuff and you've got to get good properly and sustainably as well.

22:37
Speaker 1
Yeah. So what you spoke about earlier is, I almost want to think about it as the kind of the tactical aspect of it. It's putting down some infrastructure, getting to some kind of a baseline, being able to measure historically over periods of hours, days, weeks. And then very importantly, is having the reporting that is contextualized and insightful and then creating almost dependency on those reports, first of all, and then a conscious culture where everybody is aware of the reports and look at the data. And that's a big part of that culture, to create a culture of improving something or create a culture of measuring something and measuring ourselves against something. The reporting is quite a big aspect of it. And something that you mentioned, we sometimes see a measure or a metric and we're not sure if it's good or bad.

23:36
Speaker 1
Do you find that the reporting is sometimes representative of that as well? Where we see a metric or a number in a report and we don't know if that number or measure is good even on the report, meaning that our reports have to be a lot more intuitive and reflective of the status of something.

23:55
Speaker 3
Yeah, it definitely is the case. And how we try and tackle this is you start out trying to put your quantities down, then you move on to your ratios and you kind of contextualize it to that extent. But the real kind of end goals here are to contextualize it per batch. If you've got a batch process or per time period, if you can get it on a production run or whatever it may be, that's the most appropriate context to each site or each operation, then that makes sense. And that really helps to eliminate whether you stop for cleaning or stop for whatever may be, and eliminate or clean the data even further. And similarly, you could do that for an event being a cleaning period or a maintenance day, what were your usages?

24:55
Speaker 3
And you can generate additional benchmarks based on that as well, which is quite useful. And then what we've done as well in a couple of instances is just bringing the data, bring in financials in there, generating an electricity usage report based on dollar base as opposed to just usages and ratios. And eventually the instate of that is if I push this rinse button again, what's it going to cost the business? That's where you want to get to.

25:30
Speaker 1
You're able to get to that kind of granular resolution. For operators, for example, where they understand the impact of a recycle. That's the goal, I think. Then you can have awareness.

25:45
Speaker 3
Then you've got awareness and you've got kind of proactive kind of responses to it. And it's not just reactive, responding on meters that are alarming based on high usage or whatever, but you've got kind of the forward thinking, what should we do? Should we change brands now? Should we carry on? We can actually plan our strategy accordingly. And that's really when you know you're in a good space.

26:12
Speaker 2
Maybe at that point, if you've got some examples, Rob, of the different methods. So if you just put in this baseline of your normal consumption reporting, what is it that you would be able to achieve or gain from just the consumption reporting and then adding the additional context, that was a great example about now I can actually start to plan. I can plan different products. I can understand when I need to run those different products from my little bit of experience, and you might be able to tell me different, but from what I see is as long as you've got this institutionalized consumption reporting from a diagnostic perspective, one thing that immediately happens is you'll probably find that prior to that, your variability in your utility usage would have been probably all over the place as soon as you put in that baseline.

27:11
Speaker 2
And you can measure against that baseline. One thing that normally happens is that your variability at least decreases.

27:20
Speaker 1
Simply because of the awareness.

27:21
Speaker 2
Simply because of the awareness. And then only when you start moving to a little bit more, adding more context, that's when you actually drive it downwards, or even downwards and into a narrower band of variability. And I don't know if you've seen that with some of the projects that you've been working on.

27:40
Speaker 3
Yeah, it's hard to give you specific examples on that, but what I do find is that you'll start moving in that direction and you'll generate a target for yourself, which you may think is ambitious, but the more you kind of get into that frame of mind, the more you realize that target was actually quite easy. And so often you can overstep your targets based on that. But if you don't have that baseline benchmark information, you end up, as Carolina was also saying, is that you've got these companies putting these overly ambitious goals out there, which they just do not even have any idea how they're going to achieve.

28:22
Speaker 1
We need to reduce our energy by 25% based on what baseline and what metrics. Yeah.

28:28
Speaker 3
So generally what we find is that if you can show how you've got a couple of projects in a strategic plan and you've got a, and your capital investment kind of from that perspective can help you and it certainly will help you. But once you start getting your company into the frame of mind that they're actually investing in projects like this that are moving towards sustainable development, you'll find that the social and the ways of working have changed already and your savings are already there. That's what we found the most. It's very interesting and it's intriguing, but if you're in a mental space that you're monitoring and you're measuring and you're kind of reporting and talking about it in your production meetings and you're talking about the right information in your production meetings, then your capital investment plan and your strategic plan is important.

29:25
Speaker 3
Yes, but you will find that you'll save almost as much or maybe more just through the mentality and the kind of awareness of the usages and the kind of people walking around and closing taps and just being more diligent about it and thinking about that sort of stuff. So, yeah, I don't know if that answers your question. I got a bit.

29:48
Speaker 2
It does. And I think another important point that you just mentioned there is, and we spoke about it earlier, as well as the information must be available to anybody or an organization, because it's not the quality department or the energy maintenance or the maintenance guy's responsibility. It's an overall company wide drive. You spoke about, Rob, that sometimes it's difficult to get hold of the information, though, and from, obviously, we play in the technology provider space. If you can have maybe advice on people when they go on this journey, what should they look out for when considering either solutions, stacks in that solution, or space and technologies that you're going to deploy? I mean, you mentioned it IoT. Yes. It makes it a little bit easier these days.

30:41
Speaker 2
Maybe not as big as an installment requirement from a hardware perspective, but again, some of these vendors

will now push it to their little cloud solution. And at some point, you need to get it out to work out your ratios. Right. You still need to get it back to the production floor. So any advice that you can maybe just give people when looking at this space, especially on what technology would you kind of propose to do that?

31:12
Speaker 3
No. Cool. That's absolutely critical. And I think the main thing here is to make sure that you have control of the data. You own the data. That's first and foremost, in my opinion, and centralizing that into a data historian or a central database that you can at least manage. So first thing we try and do is put down a historian, and it doesn't have to be an expensive system, and it can be cloud based as well. Absolutely. There's no reason why you wouldn't want that and just try and collate information. A lot of the sites will already have data in silos. So what we would try and do is try and bring that used an API to pull that out into your historian.

32:05
Speaker 3
If you're not going to replace the meters for that, try and integrate it and centralize it in one place, and then you can really think about moving forward. Once you've got it in a place where you've got access to the raw data, you can pull a trend and you can see what happened. And in so many respects, we've got a certain client that just wants a report in the end of the month.

32:33
Speaker 3
But the problem I have with that is that's when you end up going into one of these real data silos and somebody owns your data and they just churn out a report for you at the end of the month, but it doesn't allow you to really delve into it and problem solve and it doesn't allow your process engineers to really understand what's happening and your team to really take ownership and your operators to see what happened. That was interesting. I pushed that button and I did this. Now you really want them to be able to go and just pull a trend and see exactly what happened there on the usage or what happened relative to the equipment that they're working on. That's really where the power comes in.

33:10
Speaker 1
Yeah, I think you hit the nail on the head. I think it's an investment. And if you're going to invest in some kind of an energy solution, there's a lot of different solutions out there. There's a lot of methodologies and approaches out there, and a lot of them may seem very complex. And very often I think it's easy to spot something that potentially looks very simple in nature, but then you have the risk of that creating another data silo. And probably the best approach is to rather combine all of these different silos already and build a view from there. And the thing that you mentioned a little bit earlier, you mentioned manual data entry. And I'm amazed at how many organizations and manufacturing operations still rely on manual data entry.

34:02
Speaker 1
So it is important to have a solution that caters for manual data entry, number one. And number two, if you are considering some kind of a solution, you could also even start with manual data entry. Just to start getting some kind of a view or baseline and build it out from there.

34:22
Speaker 3
Absolutely. I think there's so much power in even just a single data point a day or a week, even if you have to, it's so much better than nothing. And it's an 80 20 principle kind of approach. You can get so much for so little if your system allows a manual data entry point on the OD occasion. So that's really where it comes in. And I was just thinking about this. Now, if we look at sustainable metrics, one of the key ones is safety. And getting safety values in manual entry is 99% of your source of data. So that's proven, and it's proven to be hugely effective if you can have effective safety systems and be looking at your near misses or whatever it is, each on a daily basis.

35:26
Speaker 3
And so you can incorporate all of these into one system so effectively with the right technology.

35:33

Speaker 1
Yeah. The other thing that you mentioned about the people aspect of it, which is of course, part of manual data entry, is the very important and valuable commentary, human context that is provided, having the ability to, if there is a value or a number or a metric or something, that showing is the ability for an operator or somebody to add some context to that metric. What happened? Was there an incident, an event? And having a system that allows for that kind of entry, because that human commentary and context is super important, and sometimes a machine or automated entry can't give that to you. So that's quite an important view as well.

36:24
Speaker 3
Yeah, no, definitely, 100%. And I've just been kind of taken aback a little bit at the last couple of years as to how relevant manual entry is. Even on the biggest systems we've implemented, we've still got certain sites where they will manually enter almost all their meter readings. And it's great to automate it, and you can have a long term plan to automate it. But manual entry is fundamental. It's the basis that you can start with, you can start a site that's got nothing. With a manual entry system, you can get reports, you can generate it, and as you start proving the funds and proving the benefits, you can install more metering and automate it and kind of prevent that. So, yeah, that's important. And throughout, I mean, you look at the other systems, all the filler optimizations, et cetera.

37:19
Speaker 3
There's a lot of importance in manual, in that ability to enter values manually and enter reasons manually and enter comments. So much there. Cool.

37:34
Speaker 1
So you spoke about the infrastructure, some metering, some investment in hardware. We covered a central, or a unified, if I can call it that, historian, where all of the different data silos could be negated and collected in one source, building the reporting from there, creating awareness in terms of actions for an operator, for anybody on the plant floor. What does this mean in actual energy usage terms? My actions. And then you want to get some reporting that is unambiguous, trusted and broad across the business. That's the end goal, really?

38:17
Speaker 3
Definitely, yeah. Getting everyone on the same page and getting everyone to kind of believe the number and we use it. I find that's one of the most interesting barriers, is getting people to believe that number is actually true.

38:32
Speaker 1
99% of the time.

38:33
Speaker 3
It is, absolutely.

38:35
Speaker 1
That number can't be. No, we don't want to see that number because it can't be real. It can't be true. We've heard some of that as well. In fact, some people actually even almost sabotaging some of that process because they don't like the number that they see.

38:54
Speaker 3
Yeah.

38:56
Speaker 1
Then from that reporting point of view, sort of in the longer term, you can then show some actual monetary or financial gain. There is then buy in. In the system. There is a habit of, not only a habit, but to your point again, culture of looking at the numbers, trusting the numbers, and that's the goal, that's the utopia, that's the dream

we're headed for. And then having something in place over and above that where if we adding a new line, adding a new cell, whatever your process looks like, the ability to quickly add that to the existing system.

39:36
Speaker 2
Correct. Not to worry about the additional, well, you need to drill and you get the data from just adding it to your already infrastructure, which is based on open protocol.

39:49
Speaker 1
So you can always, it's not necessarily a ton of code that adds to your technical debt. And then it's not easy to add or expand to the process for sure.

40:01
Speaker 3
And also just not getting stuck in one system either is so important. Just being able to use the open source, the technology that's moving around us, things are moving fast and make sure we're setting ourselves up to utilize that and going forward as well. Thinking about the future is important there, I think, which is cool. It's really exciting seeing what's coming around and the different metering technology and the different optimizations and reporting solutions and all of the data ops platforms.

40:37
Speaker 2
Cool.

40:38
Speaker 1
Rob, any other advice, suggestions, recommendations for anybody listening that are looking at I suspect my usage is completely out of whack or I know my usage is completely outside of limit. I have no idea where to start. Apart from calling you, we'll share your details. Any other practical advice based on your experience over the last couple of years?

41:06
Speaker 3
Look, I think a lot of the time it's not something that's out of reach of anyone, it's not rocket science. A lot of the time some of the technology takes a bit more insights, but yeah, use what you've got. I think that's most important. And the last kind of comment I wanted to maybe add is don't forget the rest of the systems, the safeties and the waste management and so on as well, and kind of CRp optimizations. And of course, the one thing that we talk about so much when we're talking about we're getting further down the line is how much does it help us to optimize our performance. Optimizing performance can hugely improve your utilities and sustainable metrics. So do focus on it. But you do need to look at your utilities plants and your utilities equipment as well.

42:01
Speaker 3
It is absolutely critical to make sure that's moving along and been sized correctly and et cetera. And you've got efficient pumps and efficient motors and vsds in the right places and so on. So there's a lot to look at, but almost everything helps. That's the beauty of it.

42:22
Speaker 1
Yes, you mentioned in our previous chat, which was the one that we had over a beer, you spoke about. Yeah, this is an area or a focus for every single person within the business. But you also mentioned, I don't know if we call them a champion, but somebody, at least initially, that drives this view and this process, because we all understand in a day to day operation, if you have a day job, regardless of what that may be, that could be operations, maintenance, everybody has a day job, but somebody almost has to own this drive, at least initially, until it becomes a much broader view. That's probably an important view as well, having that energy champion within any business.

43:08

Speaker 3
Yeah, no good memory there, but, yeah, 100%. I think that's really talking to the people and attitudes and approaches to it. We've got to really want it as well. And, yeah, that helps. That's absolutely critical to make a success out of a project like this.

43:29
Speaker 1
Are you okay that we share your details with the podcast? There's some contact details. I'm sure there would be some people absolutely get hold of you. Fantastic. Excellent. Cool.

43:39
Speaker 3
Awesome. All right. Any advice anyone needs, just shout more than happy and very passionate about making the world a better place as well. So that's awesome.

43:49
Speaker 1
And that's why you are sorry.

43:51
Speaker 2
It's not just because you live in Cape Town.

43:57
Speaker 1
That's why you one of our favorite engineers and one of our favorite humans, Rob, is because of that passion. So thank you very much for your time and sharing some of that.

44:05
Speaker 2
I think if I can maybe just summarize three points.

44:09
Speaker 1
Go for it.

44:10
Speaker 2
Just three points that you want to take away maybe from this is, first of all, own your data. Make sure you own your data. Second of all, and we've said it so many times on the podcast or the human machine podcast is utilize open protocols. And I think the last one is a little bit more. I always go into the tech a little bit too much. But I think one thing that Rob really highlighted here is that this is a company thing. And what I mean with that is everybody in the company must believe in having a sustainable goal. So don't do this alone. Make sure you make that culture of a sustainable culture in your company. I think if you do those three things, I think you're.

44:54
Speaker 3
Spot on there, Lenny.

44:57
Speaker 1
We often speak about when the topic of digital transformation comes up. You understand the technology that improves the process that enables the person, but it has to be enterprise wide. That's very often the missing view that people don't have.

45:12
Speaker 3
Yeah.

45:12

Speaker 1
Nice summary, Lenny. Thank you.

45:14
Speaker 3
That's quite.

45:17
Speaker 2
Exactly three things.

45:18
Speaker 1
You haven't even had a beer yet. It is a Friday. It's a good day. Rob, awesome. Thank you so much for your time and your insights. It's exceptionally valuable. As always, we thank you for that.

45:32
Speaker 3
Thank you guys for having me and really appreciate the great work you're doing in the industry.

45:36
Speaker 1
Cool. And you keep it up. We need passionate champions in our industry, and you're definitely one of them. Thank you for that. What's the next episode? I'm trying to think. I have no idea.

45:51
Speaker 2
That was Rob.

45:51
Speaker 1
That was Rob. That was Rob. Robert Aubrey from Next Integration. We'll share Rob's details. Awesome team. They're doing some amazing things and add value in so many ways. We'll share Rob's details. I have no idea what the next episode is. I think we've got a couple of things lined up. We're definitely not going to leave the next episode for another four months. It'll be a little bit sooner than that. We are also heading off to inductive automation's annual conference, the ICC, in September in California, in Folsom, California.

46:24
Speaker 2
I think that would be a good podcast if we can get somebody from inductive, definitely.

46:29
Speaker 1
We're trying to set up the podcast with somebody at inductive there live from California, but we'll have another one before that. So always, thank you for listening. Thank you for sharing this journey with us. We're not professional podcasters. We're just passionate about our industry. But if you have any comments, what is the email address?

46:50
Speaker 2
Podcast at element eight.

46:51
Speaker 1
Podcast at element. If you have any comments or suggestions.

46:55
Speaker 2
Topics that you want to cover, or.

46:57
Speaker 1
Some other people, some amazing people in our industry that you would like us to chat with, let us know. We always appreciate the input and the feedback.

47:05
Speaker 2
Cool. And with that, have a great Friday.

47:08
Speaker 1
Thank you very much for listening and look after each other. Thank you very much, everybody.

47:12
Speaker 2
Cheers, everybody. Bye.