**Transforming Profitability: Key Trends in Reliability Management for Business Impact**

**Robert Williams**

So. I guess we're live in action. We'll have people join as they join. But today, we're here with. George Williams from ReliabilityX. He's the CEO. I'm Robert Williams. No relation that we've been able to find so far, but I'm the director of sales and revenue operations for Redlist here. Today, our topic of discussion is going to be transforming profitability, and George and I are gonna have a conversation about some of the key trends that we're seeing in reliability management and those that are actually making a big impact on the bottom line. So we're excited to excited to join today. George, you wanna take a second and introduce yourself?

**George Williams**

Yeah. Sure. Thanks, Robert. 1st and foremost, thank you for, allowing us to spend some time with you today. That's very generous of you to offer us a spot to come and have this conversation, so we appreciate that very much. My name is George Williams. I'm the founder and CEO of a small niche consulting and training firm called Reliability One, and we help empower people at our heart. We're an empowerment company. So we offer the training tools and coaching necessary to escalate your business and profitability and to create sustainable results.

**Robert Williams**

Thank you. That's great. We're happy to have you, George. I mean, I know we ran into each other at the SMRP Indycon last week and talked about this very briefly, but I appreciate you taking time out of your schedule to join us today. So Yeah. Of course. A little bit about Redlist. So we're a software platform that helps industry leaders kinda reduce downtime and extend equipment life and reduce costs, enhance safety through our lubrication management system and CMMS solutions. We work with some of the biggest companies in the industry. You know, you see those the on the screen there, but Georgia Pacific, Amazon uses us, Dart, you know, which nobody has ever heard of, but we've all drank it out of their red solo cups. You know, The Lost, Mars and Services, Steel Dynamics. So we've, you know, we've helped a lot of people across a lot of industries optimize their lubrication management and reliability programs through our software.

**Robert Williams**

So today we're gonna talk about kinda some of those current maintenance trends that are showing up. We've identified a few key areas here. George, I and we'll just kinda go through these and love to just kinda have a back and forth, and talk about what you're seeing with regards to each of these and what we're seeing, and see if we can't bring some value to our audience today. Great. So first and foremost here, and I'm gonna actually shrink this down, is that predictive maintenance technology. So we've been running to a lot of people that always talk about IoT sensors and you know, vibration and thermography and using AI and machine learning. What are you seeing, George?

**George Williams**

I guess we're seeing a complete across-the-board indicator. Right? So most folks fall somewhere in between. We bought a tool, but we never use it, and we're looking at advanced machine learning. So it's really across the board. However, you see a definite competitive advantage for organizations that are steadfast in the utilization of knowing failures before they create a problem. You know, these technologies, they don't they don't stop the imminent failure from happening. You still have to take a maintenance intervention. But it allows you to do so without additional rush ordering parts without having a significant impact on the business, and the organizations that are using these technologies get the business advantage of when it is most convenient. I can do the repair, and we're back up and running. Organizations that don't, well, they're down a lot longer and they're rush ordering parts.

**Robert Williams**

There you go. Yeah. I mean, we've seen a lot of companies.

Try to approach these technologies almost prematurely where, you know, they haven't really even established a good foundation yet of, you know, things like proper lubrication management and really getting, you know, good digital systems set up for their PMs and for, you know, their even their tracking, and there, you know, they're trying to drive the Ferrari before they learn how to, you know, learn how to drive the Honda Civic, so to speak.

PAIN POINT

**George Williams**

And are you seeing that as well? Yeah. No doubt. Look. If your organizational culture is such that you ignore problems, knowing the problem earlier doesn't stop you from ignoring it. Right.

**Robert Williams**

No. You're absolutely right, and that's and that's where I mean, like, these technologies, I think it can be really, really valuable. I mean, we work with a lot of different, you know, sensor providers ourselves, you know, Emerson, off uptime through Shefler, you know, and they're great technologies, and I think just like you mentioned, they can really give us a that that foresight that we're looking for so that we can get ahead of the problems and plan for them. But if you don't have those basic foundations, this is one of those ones where it can have a significant impact and have a really good ROI, but you really do have to have the foundations built before you add this type of technology to get the most out of it. Would you agree?

**George Williams**

A 1,000 percent and there are technologies that are a lot easier for like, if you're looking for the cultural evolution piece of convincing people that these technologies can be helpful, getting an ultrasound gun or even a little you know, the FLIR camera that'll plug right into your phone. Getting a device that's inexpensive but gives people an easy way to get comfortable with the technology is not that costly and can still add value to your business.

**Robert Williams**

Yeah, and these, I mean, these technologies do provide value to the business. There there's definite ROI. I mean, the typical ROI period on these is, you know, one to 3 years. You know one, I mean? Can offer some significant savings in avoiding those catastrophic downtimes and or downtime and then also extending, you know, intervals and maintenance intervals and things like that. You know, just because we can we can actually see what's going on in the bearings or the, you know, or the motors and actually know if there's gonna be a problem a little bit ahead of time. It gives us some definite leverage there. Anything else, George, that you wanted to maybe add on this particular topic?

**George Williams**

Bring vendors in to provide a demonstration. Oftentimes, you will pay for the tool during the demonstration.

**Robert Williams**

There you go. There you go. That's a great ad, for sure. So our next our next topic is this this is one of operator-driven reliability, or some people are calling this, total, productive maintenance. Right? What are you seeing in regards to this, George?

**George Williams**

I well, I'm actually seeing a shift back towards looking at this. Right? So you've had you had the eighties when this became pretty popular for folks to focus on, and then they kinda didn't like the terminology and discipline required for TPM, so they changed it and called it OPEX and Lean 6 Sigma, and now they're saying operator driven reliability. But folks are realizing more and more that they don't have a maintenance problem. Right. No. It's so true. Oftentimes, maintenance responds but doesn't replace a part, and if that's an and if you're a manufacturing space and you go into Redlist or you know, whatever system and you pull out the data and you're showing up, but no part is replaced, that's a pretty good indicator that you could use operator driven reliability.

**Robert Williams**

Yep. Absolutely. What we see mostly with the people that we're talking to is less, you know, less a shift. Well, definitely a shift back towards having the operators.

**Robert Williams**

For the maintenance of the equipment that they're running. But, really, it's things like I mean, the basics. Again, it's doing pre-op and post-op inspections and using that to trigger, you know, notifications to the maintenance team if there's something that requires some additional attention or diagnostic from a maintenance technician. You know, another shift that we're seeing is, you know, it is a shift in lubrication responsibility shifting to the operator versus, you know, having a separate lubrication team. Although we see we see both still, Bigger organizations do still tend to have lubrication teams, but a lot of the companies where they're just you know, they're light. People are having a hard time finding good qualified maintenance technicians now, and so, you know, to spend their time pumping grease is it happened you know, it's not as high a priority, and so they're shifting that responsibility down to the operator.

**Robert Williams**

Now we did have one, we have one client that, you know, that had shifted to this and unfortunately, didn't provide them with the right training, and we'll talk a little bit about that later. But it ended up costing them, you know, I mean, they drove themselves into a situation where they were experiencing a couple of bearing failures a week before adopting, you know, a solution like ours, and so it can backfire if it's not executed on properly.

**George Williams**

A 1,000 percent A well-informed operator is the best friend to an asset. Yeah. The difference between a Model T Ford that rotted in the earth and one that goes to car shows today is not how good the mechanic did. It's how good the operator did. Yep, and the operator understands their role one, taking care of the asset and making sure that if a rust spot shows up, it gets taken care of right away. If it needs lubrication, I take it and get a lubricator right away. The more educated the operator is in how they impact the overall reliability asset, the better it is for the company.

**Robert Williams**

Yep. Absolutely. Absolutely. I could have said it better myself. Next one here, and this one's kind of fun. It's on cutting-edge technology here is these digital twins and augmented reality. I know we had brought out, one of the new Apple Vision Pros to the SMRP conference, and that was getting quite a bit of attention. But what are you seeing, George, as people kind of evolve into this augmented reality or virtual reality type, you know, type platforms? This a very, very advanced use case. But what are you seeing in this space?

**George Williams**

So I guess, 1st and foremost, what I'm seeing, our developers are kind of forced into the Apple model at the moment. The Android option doesn't quite have the power behind it just yet, and so I think there's a delay.

**Robert Williams**

In the ability to make this cross-platform. In addition, I.

**George Williams**

Think I think it's a space where that's gonna take a few years to fully understand what the potential is here, but there is a massive potential. We're gonna talk in a little bit about training, and as the generation flips in terms of the most prevalent on the shop floor. Right, and that's gonna happen in the next 5 years or so. We're gonna have a different generation on the shop floor that is app-oriented, that are technology-oriented, and they are coupled with having less skilled labor, and so technologies like this I I was at an event earlier this week and gave a keynote address at it, and one of the examples for this technology that I gave is the end of arm tooling inspection.

**George Williams**

Right? Like, let's say I have a robot. It's got some very specific end-of-arm tooling, and right now, what happens is we do the changeover, and we just start running like crap, and then we call maintenance, and we wait 20 minutes, and maintenance shows up, and they run it some more to see it run like crap, and then eventually, they see a finger is bent. But with this technology, I can overlay kind of like a BIM drawing that, you know, I can take a distance measurement. I can overlay the BIM drawing. I can immediately see something that doesn't fit the visualization. Right, and you can give me a red alarm and tell me something's not right with the end-of-arm tooling.

**George Williams**

Right, and that can be part of your pre-flight checklist. So I see a significant opportunity here way beyond the basics of I can bring up a screen, but I think we're still years away from that being AAA's viable selling point and cost point. Right?

**Robert Williams**

Yeah. Yeah. No. That I mean, the technologies that are supporting this type of stuff are expensive. I mean, very, very long ROI periods, and you know, I think I think you're spot on. I think this is you know, I mean, if you know, I mean, this is even before cutting edge. Right? I mean, this is, you know, this is right on the cusp of becoming a reality for people to use effectively in their environment. So, I mean, I think I think if I was me, I think this stuff is cool. I think if you've got the funds to adopt it and could be an early adopter, I think you'll be that much further ahead. But this might be one that I would maybe wait for the trend to develop a little bit longer before I jumped into that into the pool.

**George Williams**

It could be a scenario where language, like, it used to be the predictive maintenance technologies, all the companies had their language. Yeah, and that became unacceptable to, we'll say, society. Right, and to PLCs and SCADA systems, and so they had to unlock that language or they weren't gonna get any new customers. Yep. We could be in a scenario where that's similar where different approaches and software and companies are kinda saying, hey. No. This is just my language, and then 10 years from now, they might have to to make it much more open and you know, you know, not necessarily where you know, people could program it themselves, but at least it speaks to all the other languages, and I don't know we're that we're at a point yet where everybody has chosen the path forward.

**Robert Williams**

Right. Yeah. No. I agree. I mean, we like I mentioned, we brought, you know, we brought one of the new Apple Vision Pros, and I mean, it's really cool, and I like, our app actually runs really well in it. But we're, you know, I mean, we're, like, playing around with it. We're going, oh my gosh. We could do so much with this, and so, like, we're looking at their SDKs from a development standpoint to see what it would take to stitch together, you know, spatial images and actually be able to create, you know, custom 3 d models and that sort of stuff. So, you know, not just as a diagnostic tool, but also as a training tool.

**Robert Williams**

I mean, like, before you turn this, you know, I mean, this very app-driven work labor force that's coming in, right, that have grown up with this stuff a little bit and are, like, you know, really easy early you know, really easy adopters on this. You know, I see this as a really great tool in the next few years for training those guys into the next level of technicians that we really want them to be in the workforce.

**George Williams**

Yeah, and it and even the technology has to advance a little better as well. Right? Because the actual hardware is gonna have to be safety-rated. It's gonna have to be, you know, be able to survive a splash and a drop and all kinds of other things, and I think we're at this point, there's lots and lots of potential, but a lot of rework if you're an early adopter.

**Robert Williams**

Oh, yeah. Yep. Absolutely. Absolutely. Anything else to add to that? I'm good.

**George Williams**

K.

**Robert Williams**

Alright. So this is the other thing that I'm, that we're starting to see a trend on. This is really advantageous for a company like Redlist because this is what we do. But, you know, where people are, you know, they've worked really hard to establish these EAM systems through, you know, the SAPs and the Maximos and the In Fours of the world, and while those are great systems and they provide a lot of value for the organizations, there's really there's an adoption gap when it comes to the guys that are turning wrenches and have grease under their fingernails. You know, and so the other thing that we're seeing is, you know, this desire for a lot of people to really get down to the granular details of their loop program, and it's like, I wanna be able to capture the asset, the components that make that up, the lubrication points.

**Robert Williams**

I wanna know what tasks I'm performing, what product I'm using, how much of it I'm going to use, and where I'm supposed to put it, and in traditional CMMS solutions or even EAMs don't really accommodate the depth of detail that's necessary in order to really execute on one of these, you know, on a really dedicated lube management program?

**George Williams**

I think there's you know, for me, systems aside, there's a trend to finally realizing that between precision installation and lubrication practices, you can eliminate about 50 percent of all rotating equipment failures. Oh, yeah. Adjust those two things right? Yep, and you know, organizations like ICML that certainly educate a lot of folks and like, my organization that educates a lot of folks one, your organization that's giving not only education but the Industry, and that's commendable.

**George Williams**

The fact that folks are finally opening their eyes to this and realizing that, you know, the lubricant they purchase off the shelf is not as clean as they think, and that ISO rating makes a difference. You know, visually seeing the difference between an ISO rating and what your tolerances are inside your equipment is significant, and it's, you know, folks initially have a tough time swallowing that. Yeah. What the cleanliness standards really should look like and where they're at. But they're certainly driving to finally realizing that we can eliminate this problem. Because of this problem, you know, aside from the human error of putting the wrong thing in and turning your system into a solid. Yeah. You know, aside from those issues, you can control this failure mode.

**Robert Williams**

Yeah. Oh, yeah. Absolutely, and that's I mean and really, this is where you know, I mean, a lot of times I'll be talking to people, and one of their big concerns is this, and we brought this up a little bit earlier, is this aging workforce. Right? You know, we've got these technicians that have been in these that have been in these plants for 25, 30, 40 years, some of them, and they're getting ready to retire. I mean, they're done. There, you know, they're aging out, so to speak, and then you've got this new crop of people that are coming in that didn't go to trade school and you know, didn't take shop class when they were in high school and you know, really lacked the mechanical skills.

**Robert Williams**

They're trainable. They have potential. They're really much more comfortable with the technology than the, you know, the, you know, the graduating crew, you might say. But they're lacking the technical and the mechanical skills to really get in and execute on this, and so, like, a lot of see what we see with, you know, with Lee's loop management programs is what is the opportunity here to really document this and have it become a training tool as much as it is a route tool. Right? Because you lose if, you know, if you're a guy that's been at your plant for 35 or 40 years, that guy ups and retires. He walks out of the plant with all of that knowledge that he's accumulated over that time, and so to capture that, you know, I mean, I hate to use this term, but that tribal knowledge, right, and convert it to common knowledge requires a system like this where you can actually get in there and document these things and put those instructions in and get those guys to, you know, harvest that knowledge from those guys' heads before they retire and you hand them the gold watch. Right, and so. Yes.

**George Williams**

And I think just to add on to that, in most organizations, it's the new person that they throw on the loop route. Right? Like, if and so, you know, having a system that educates that person and walks them through the process step by step so they don't necessarily have to be an expert out of the gate, has a significant advantage.

**Robert Williams**

Absolutely. Absolutely. Well, let's I mean, let's move on to the last one here, and I know this is your area of expertise, so I'm gonna let you kinda go through this one.

**George Williams**

So from a training and development perspective, I think we're finally starting to see, I guess I'll say, targeted investment in this space, and what I mean by that is it used to be that, well, if there was no line item, you just didn't get training, or if you got a pamphlet in the mail and you thought it was a good training course, you would ask for the funding at that point, but there was no real preplanning. We're starting to see more organizations set up budget line items specific to technical training. Whereas before it used to be, well, you're gonna get all your safety training and your compliance training, and you're gonna get all those things, and then if something comes up, just ask for the money, or some arbitrary line item that said we spend 10 dollars on training a year, whatever that is.

**George Williams**

We're now starting to see a much more refined approach to skills gap assessments. What training is needed to close that gap, and who are we gonna partner with to provide that training, and that's a that's I guess it's sad because we're seeing it because of the lack of skill straight that exists. But it's good to see it because it should have existed already. Right? That this shouldn't have been an issue of necessity being the mother of invention, so to speak. Right? It should have been a common-knowledge thing. Yes, we need to train our people. But it's still it's comforting to see a different approach, and I guess the other thing we're seeing is, at least from our standpoint, like, you're looking at a COVID requirement behind when COVID hit.

**George Williams**

For us to continue to train people, we didn't wanna do voice-over PowerPoint. So we invested in the studio and you know, multiple cameras and all kinds of, you know, all kinds of capability associated with, you know, touch screen and make it interactive. Yep, and then we also develop online self-paced training courses because the next generation doesn't necessarily feel like they have to travel to get the training. They don't mind touching this, moving that, and doing it on a phone or do it on a tablet, and so we are a very early provider of online self-paced training, and we're seeing a good pull in that direction of organizations wanting that for two reasons. One, the next generation is perfectly comfortable learning like that, and two, it allows them to take training classes like ours and put it inside the company's LMS. Okay. So it's available to anyone at any time, and they can track the metrics.

**Robert Williams**

Oh, that yeah. That's fantastic. Now, I mean, this is probably one of the, you know, most affordable ways to improve your maintenance. Right? Is one, in training people. You know, and that makes the ROI, you know, maybe a little tough to measure, but it's represented specifically in, you know, efficiencies and effectiveness with regards to, you know, your maintenance staff and how they're working in today's modern world. So. I think that's great. Yeah. I mean, training is something I've always invested heavily in myself, and you know, I've always tried to make you know, I learn the next thing, right, and stay ahead of the curve. I'm, you know, I'm an avid reader. I probably read, you know, between, oh, 2030 books a year, you know, just to kinda stay up on my craft, and I know it's important for other people, you know, in their profession as well. So.

**George Williams**

I that it's one of the reasons. So long before Reliabilityx became a company, I've been teaching at the University of Wisconsin since, I don't know, late 2009 or early 2010. One, of the reasons and I was a professional at the time. I wasn't a consultant. One of the reasons I teach is for the, I guess, the selfishness of learning.

**Robert Williams**

Yeah.

**George Williams**

Because it did keep me up to date on what organizations were doing and what they liked and what they didn't like and having conversations about challenges, and I learned as much as I hopefully delivered, and it's, you know, it's kind of for us that have a passion for learning. These are significant things, and you know, you mentioned the ROI, and for me, I don't know. I'm a pretty simple person. When the asset is delivered to the floor, it has reliability.

**Robert Williams**

Right.

**George Williams**

All the stuff that we as humans do to it messes up the reliability. So if that is true, every problem you have is human-induced by some methodology, whether it's because leadership doesn't have a system in place, whether it's because we didn't train our people. They are human-induced events. Right, and so training can help reduce those issues. Right.

**Robert Williams**

Yeah. No. I couldn't agree more. I couldn't agree more. Any final thoughts on that one?

**George Williams**

Invest in training.

**Robert Williams**

Invest in training. I second that. Here. Here. So, I threw this in just as kind of a last-ditch here. Any special suggestions that you'd have for getting a hold of you, George, if people want to invest in their training and you know, learn a little bit more about reliability from you?

**George Williams**

All of those methodologies work. We also host a free webinar every single Thursday. Go to our website. Go to the events page. Every Thursday, like clockwork, at 11 AM EST, there will be a different topic. It's completely free of charge, and they're good topics. It's very consolidated pieces of what we already train on. So they're really good stuff just like this webinar. So.

**Robert Williams**

Yeah, and I'll second that, George. I've consumed quite a bit of your YouTube content, and I appreciate that. It's helped me get a better understanding of, you know, what these guys are dealing with every day in the field, and it's helped me communicate to our clients better as well. So really do appreciate your time today, and we'll just go ahead and move on to the thank you, and thank you for participating, and we'll, we'll go ahead and end the webinar.

**George Williams** Awesome. Thanks for having me on, Robert.

**Robert Williams** Thank you. Have a great day. Cheers.