



Dynamics Matters
Podcast

What is Smart Maintenance and how do you get started?

With Bob Berry, Principal Solution Architect - HSO

[**Listen to Episode**](#)



the results company



"I'm allowed to be high maintenance because I'm the one maintaining it." – Unknown

If an asset you rely on to run your business breaks down, you've got to locate it, send workers out to reach it, find the fault and then work out whether you can repair it or if it needs replacing. All this takes time. Meanwhile, that asset is down, and you're losing money or risking lives.

Smart maintenance allows you to identify issues and faults, locate the problem and then repair it before it can bring down your equipment. And your business.

Dutch philosopher Desiderius Erasmus was unlikely to realise the future application of his assertion that: *"Prevention is better than cure"* – but this is as relevant today as it was in 1500 when Erasmus coined the phrase. Prevention is cheaper than the cure. Saving you the cost of kit replacement, the time and risk of having people on the ground doing the repair or change, and reducing loss of production and income. Key to prevention is the ability to measure the assets.



The advantages of network technology and the Internet of Things (IoT)

Vibration, temperature, humidity, flow through, are all variables that are being recorded at a much granular level using IoT devices fixed into assets. Combined with advances in 4 and 5G - where we are now blessed with a network coverage that covers the globe - connecting and feeding data back from assets and devices is now easier.

Data from the IoT devices pours into a data lake, from where artificial Intelligence (AI) is then used to pick out key insights and things of most concern. This insight, displayed via Power BI, provides a visual representation of where issues or points of failure are most likely to occur.

Consider the implications of not having Smart Maintenance. A vital piece of equipment on an oil refinery breaks, or a valve gets stuck in the closed position, without supply, oil prices go up because capacity is down. The cost of fuel also increases because supply cannot meet demand. The damage caused by failed assets can be far-reaching. But by combining Smart Maintenance and IoT, we now have near or real-time telemetry allowing organisations to calculate time between failures. For example, Rolls Royce places IoT devices in all their jet engines to track real-time data. Important for obvious reasons. In other industries, such as Oil & Gas, monitoring pipeline flow every hour is all that's needed requiring only near-time telemetry.

Smart Maintenance boosts brand appeal

Smart Maintenance has an indirect link to brand appeal through perceived quality. Take Mercedes for example. By investing in IoT devices in their vehicles, they are able to see what the engine is doing at any time and predict engine faults before they impact performance. Vehicles are then called in for repair before issues arise. The consumer is, of course, delighted. Strengthening their perception of the brand being of high-quality, increasing loyalty and sales.

When considering whether Smart Maintenance is right for your organisation you will need to consider the expense versus long-term value; cost versus margin; cost versus market share; cost versus whether you have the ability to install it. Consider oil pipelines. They can be thousands of miles long, so the cost of putting an IoT device on each mile of pipeline may not be workable.

Also consider the context of need. For example, it's vital for a manufacturer of COVID antivirus vaccine vials to be able to predict a point of failure. If a fault halts production, your 1,000,000 ampules per day need is down to the 10,00 you began the run with. Such shortages in vaccine endangers lives. Another example could be the heart monitor in your hospital. Without monitoring and Smart Maintenance, should something go wrong, there will be no alert, leading to a risk to patient lives. You can now begin to get a sense that Smart Maintenance is not only valuable in a business income sense, but also a human capital one too.





Is Smart Maintenance for every business?

By the end of 2021, 90% of all manufacturing supply chains will have invested in technology and business processes to improve resiliency. Technology like Smart Maintenance and IoT.

20% of those manufacturers will start to treat assets as 'internal customers' – monitoring those assets for faults and predicting when problems may arise – with the aim of reducing downtime by up to 40%.

And by the end of 2023, 20% of all industries will support EaaS (Everything as a Service), which includes remote IoT. What does this mean for manufacturers? Extended life of factory assets. Reduced disruptions in production. Lower operating costs. Improved brand perception. And more.

The benefits of Smart Maintenance are clear, but it may not be right for every situation. It's important to assess the cost versus return of such an investment, but also the potential differentiated value. If Smart Maintenance reduces the number of production failures helping to meet order timelines, or keeps repair costs down, or provides an added value service, the justification may be well worth the investment.

Contact HSO



Contact Michael Lonnon

mlonnon@hso.com

07849087668



the results company

1st Floor, Enterprise Point, Altrincham Road, Sharston, Manchester. M22 9AF | T +44 (0)161 300 6060 | info-uk@hso.com

HSO is a leading global technology and professional services company, delivering successful business transformations, using Microsoft cloud business applications, data and analytics, that improve results of our customers. As a Microsoft Solution Integrator, HSO innovates, designs, implements, integrates, optimises and manages business processes and applications based on Microsoft Dynamics 365, Microsoft 365 and Microsoft Azure.

With over 1000 professionals throughout Europe, North America and Asia, HSO combines innovative technology with extensive industry expertise in retail, distribution, manufacturing and (field) services and unique global delivery capabilities to help customers achieve and maintain competitive advantage (anywhere) in today's digital and global world.

HSO has been part of Microsoft's Inner Circle since 2007, the top 1% of best performing Microsoft partners worldwide. Visit www.hso.com for more information