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THE OEM CONUNDRUM

WHEN THE ONLY DEFENSE IS A GOOD OFFENSE

Minding your own business is wisdom passed down from the ages, but it might not pay in the brave new world of remote condition monitoring, where products from numerous OEMs run side-by-side in highly integrated industrial production environments. How much should OEMs concern themselves with the performance of the other guy's machine, on which the performance of their machines might depend? Should they care that their own machines may be under the watchful eye of third parties, especially if those third parties are competitors?

As doubts about the effectiveness of predictive analytics and condition monitoring are laid to rest, a land rush with unprecedented stakes is unfolding in industrial plants the world over. Once as banal as the maintenance departments to which it was relegated, predictive maintenance is rapidly developing all the strategic intrigue and territorial precariousness of an advanced game of *Risk*.

It all began innocently enough. Plant managers called for "whole plant" monitoring solutions to detect incipient mechanical failures. It used to be that the job of managing production risk and guarding against unplanned downtime was the domain of the plant operator, and specifically the maintenance department. Before performance and machine condition data became broadly accessible, the competitive position of leading OEMs was relatively secure as long as the majority of their machines performed to spec. Before big data, the root cause of failure could be hard to ascertain and could be as easily attributed to "user error," a euphemism for misuse, as to inherent design flaw. The idea that third parties could aggregate enough condition data to credibly assess machine performance didn't hold water.

In recent years, a few OEMs developed homegrown remote monitoring solutions. Maintaining condition monitoring programs and develop-

ing remote monitoring technology can be harder than it looks, though, and neither function is a core competency of a manufacturing and distribution business. Some OEMs' initiatives lasted longer than others did. The few notable exceptions that survived came from OEMs that recognized the potential of knowing everybody's business and possessed the scale to do it.

Talking about so-called *smart machines* and how they will drive populist aims including efficiency and sustainability is great marketing, but monitoring has strategic if not self-serving applications too. These include policing warranty claims, generating leads for replacement parts and service, and detecting failures in competitors' equipment.

Woody Allen said that 80% of success is "showing up," and truer words were never spoken when it comes to condition monitoring because the marginal cost of monitoring each additional machine drops precipitously once a well-conceived condition monitoring program is deployed. There are real economies of scale to monitoring all ma-

the OEM. Setting aside that installed machines may already be under the watchful eye of third parties and quite possibly competitors, the potential for OEMs to use condition data to deepen customer relationships is an opportunity that seems silly to squander when *being there* for monitoring purposes may soon be conditional for staying in business.

Why not use data that will be critical to a strong defense for a better business offense? OEMs can no more dismiss the unwelcome imposition of condition data than local bookstores could ignore Amazon, which used data about every aspect of retailing to march like Sherman through Georgia across the retail landscape. The coming disruption from concepts such as smart machines and Industry 4.0 will be no less transformational.

If past is prologue, using condition monitoring to optimize the performance and life expectancy of discrete machines may be insufficient. As a measure to defend the installed base, condition monitoring will be adequate for a time. But because taking the first step to *being there* takes

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chines in a plant versus a select few, and there's real value to the customer of seeing a holistic or enterprise picture of machine health. Late to the game but not too late, OEMs are coming to terms with the strategic risks and opportunities of remote monitoring and are discovering how easily information about the performance of their installed base can be acquired and used by themselves and others.

Ironically, the defensive arguments for condition monitoring can't help but draw OEMs into new, offensive business models such as diagnostic data services. Defending the installed base requires "being there," and being there without taking advantage of the opportunities to understand the context in which monitored machines are operating makes no sense, especially when the incremental cost of doing so is so low and the value of predictive analytics can be so high.

It's for this reason that the question is becoming less about *whether* to monitor and more about how far and wide an OEM's condition monitoring program should extend. This is especially true given that in many plants, competition for scarce CapEx dollars is intensifying. Of more importance, many OEMs may soon find they have no choice when it comes to monitoring, as plant operators explore ways to shift the responsibility of machine performance and life cycle management from their maintenance departments back to

far more in the way of new thinking, money and people than subsequent expansion throughout the site, condition monitoring will proliferate, driven either by the OEMs themselves or third parties serving plant operators. This makes *getting there* somewhat of a winner-takes-all game.

Those seeking to tackle this OEM condition monitoring conundrum must recognize that taking the first step means committing to an expansive strategy around data, information, and advice that will draw most OEMs into a new and foreign realm. What begins as a discussion about keeping pace with emerging applications of data and technology evolves rapidly into the potential for leap-frogging lagging competitors that will be slow to *show up*; and as in a heated bout of *Risk*, the victory will go to opportunists.®

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