IOM is the key to unlocking hidden value in mining, minerals, metals industry

Digitalisation has the potential of delivering over $425bn in shareholder, customer and environmental value by 2025. in the mining, minerals, and metals (MMM) industries, according to the World Economic Forum.

Getty/Gallo

Much of this value will come in the form of operational effectiveness, increased productivity, faster decision-making, and enhanced safety. However, this value will not be achieved without some changes to the way the MMM organisations operate, and this won't happen overnight.

"These industries need to consider an integrated operations management (IOM) approach to gain holistic insight into their operations from design to maintenance. What does this mean in practice? Well, it means bringing all the data into a central location, using advanced analytics, and business information platforms to gain a real-time view of the complete value chain," says Craig Hudson, Schneider Electric's business development manager for mining metals and minerals for the Anglophone region.

"Real-time contextualised data, driving business KPIs, is critical to unlocking the hidden value in the value chain of any operation. This is achieved by leveraging open and interoperable architectures as a platform to gather data in your operations. This increases your field-to-enterprise transparency and enhances value chain visibility and efficiency along the complete asset lifecycle, moving you from the mining business to the business of mining," he says.

Improved reporting capabilities

"The nature of many South African organisations is that often they have too many paper and spreadsheet records, in separate departments, using out-of-date solutions with no real ability to dynamically share the data they produce. Such a siloed mode of operation leads to inefficiencies that propagate mistakes and that prevent streamlining of processes. Further, it prevents accurate reporting, which is so vital in the MMM industry that requires thorough safety and environmental reporting," Hudson says.

In order to help support global sustainability goals and to validate their social license to operate, MMM companies must find easier ways to document and report their efforts to save energy and reduce carbon emissions. "Integrated operations management systems can help in this regard, by capturing and analysing energy data across the various stages of the

value chain. This in turn ensures that sustainability reporting becomes significantly more precise.”

A more collaborative environment

Value chain optimisation is another important aspect when taking an IOM approach. "Better visibility across the entire supply and value chain enables companies to optimise their entire operation and identify areas where bottlenecks occur,” says Hudson. IOM establishes a consolidated environment that brings together plant and business information across multiple sites and commodity groups.

“Siloes are eliminated by bringing all stakeholders onto one platform, including mine executives, process metallurgists, production planning and scheduling personnel, procurement teams, mine operators, engineering and maintenance personnel, and more. This collaborative environment reduces instances of conflict and miscommunication by ensuring there is just one version of the truth. All of the controls are reachable from one place, so that situations can be properly dealt with as necessary," he says.

Maintenance decisions made easy

“Within the MMM industry, 40% of Opex is generated through maintenance activities. In fact, asset maintenance costs will far exceed capital costs over the life of the asset. In some mining operations, more than 30% the total site workforce is exclusively dedicated to maintenance,” says Hudson.

Integrated operations management considers asset performance by integrating risk and asset criticality into an overall asset performance management strategy.

“Real-time asset performance management (APM) software can generate optimised maintenance and spare parts strategies, by first looking at the company’s business strategy and objectives, and then prioritising actions down to an individual asset level to maximise production availability. APM with real-time data moves us from reactive or preventive maintenance, to informed predictive maintenance,” says Hudson.

For more, visit: https://www.bizcommunity.com