Operational Excellence Offers Paths to New Technologies

written by Lauri Moon | November 1, 2016

(IW – Steve Minter: 10-24-16) The Industrial Internet of Things promises more efficient operations, higher quality products and new levels of integration with suppliers and customers. Those promises, though, come at a price. For companies large and small, sluggish demand is reining in capital expenditures and making many manufacturers hesitate to commit to investments in advanced technologies.

Emerson Process Automation Executive President Mike Train, however, says that *companies that invest in advanced automation and follow industry best practices can realize the kinds of significant savings that will make the investment in new technologies pay off*. In fact, companies can achieve improved earnings of up to 15% through new technology and improved operating practices, Train told the Emerson Global Users Exchange in Austin, Texas.

"After years of running at maximum production, postponing improvements, dealing with an aging workforce and delayed turnarounds, many companies are living on borrowed time," Train said. "They desperately need to invest in improvements, maintenance and upgrades."

Emerson and research partners have been studying what separates top-performing companies from their peers in terms of operating performance over the past year, Train said.

"If you look across the broad industrial sector globally, as much as $1 trillion of company value is lost every year to sub-optimal operating performance," he said.

Top quartile performers show significant operational performance in four areas that can affect their financial results, Train told attendees. They include:

- Safety – Top performers have three times fewer safety incidents than companies performing at an average level, said Train.
- Reliability – Companies in the top 25% of process firms have 4% higher

availability of equipment (an extra 15 days per year) and spend half as much on maintenance.
- Production – Operating costs are 20% lower for top performing companies than their average performing peers, Train said.
- Energy and Emissions – Top performing plants have 30% lower CO_2 emissions than their average performing peers and spend a third as much on energy.

Train said this data will help companies which "lacked the confidence in knowing which investment option will move the needle on financial performance."

IIoT an Evolution, Not a Revolution

While noting that the Industrial Internet of Things is a hot buzzword these days, Train said it did not represent a revolution but rather "a logical evolution of the past 25 years of technology innovation." He pointed out that process manufacturing companies have long invested in intelligent sensors, digital valve controllers and other technologies. As a result, he said, "Your IoT strategy must take into account the investments you have already made and leverage the infrastructure you already have. It all starts with having the right business case."

At the user event, Emerson announced an expanded array of products and services it is calling the PlantWeb digital ecosystem. They include PlantWeb architecture to serve the enterprise as well as new sensing technologies, Secure First Mile products and services to securely connect data to the cloud, two suites of analytical software and an AMS ARES platform that allows companies to aggregate assets from multiple business systems and send that data to plant personnel either on desktop or mobile devices. Emerson said these solutions were scalable and would allow companies to begin the IoT journey with "limited effort or investments."

Emerson is also providing real-time monitoring services where its experts will "constantly monitor and report on asset and operational performance, prioritized repair and asset trending." Emerson will use Microsoft Azure as the cloud service for its connected services.

Train said that much of the current discussion about IIoT is "visionary" but "kind of

hard to act on.” He continued that with the introduction of these products, Emerson will help customers develop a “clear, practical roadmap for how to make Industrial IoT actionable.”