

# How'd They Do That?! How Top Performers are Benefiting from the Compounding Effect of Wireless IIoT

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## Scope:

Wireless communications, non-invasive sensing, and analytics – common components of the industrial internet of things (IIoT) – are driving a radical increase in operational performance and profitability in the chemical processing industry.

This presentation will explain in detail how top quartile performers in the chemical industry are leveraging these new technologies to achieve financial goals. We will provide examples include real-time monitoring of pumps, furnaces, cooling water, pressure relief devices, tanks, and corrosion.

## Process:

Due to organizational silos, justifying the underlying wireless IIoT infrastructure is too often imposed on a single application, such as monitoring the health a single asset class.

However, the true compounding power of this infrastructure is unlocked when customers take into consideration the applications affecting, not just asset reliability, but also energy, emissions, personnel safety, and operations. As a result, customers have the potential to experience considerable productivity and profitability gains.

## Additive Information:

At the core of these applications is the use of analytics to deliver actionable information to the appropriate stakeholders. Further compounding the effect of a wireless IIoT infrastructure is the hyper-pace in which analytics is adapting to changing process conditions, regulations, etc.

This isn't without challenge. Interoperability with existing systems, processes and investments, and emotional resistance to operational change

are common perceived threats. We'll discuss how to overcome the common speed bumps.

## Results & Conclusions:

The chemical industry's top performers are investing in wireless IIoT applications to improve the following 4 key areas:

- 1) Reliability
- 2) Production
- 3) Energy & Emissions
- 4) Health, Safety, Security & Environmental

Strategic investments in wireless IIoT infrastructure typically have a payback period between three and 12 months and have been shown to improve earnings (EBITDA) results by as much as 15 percent.