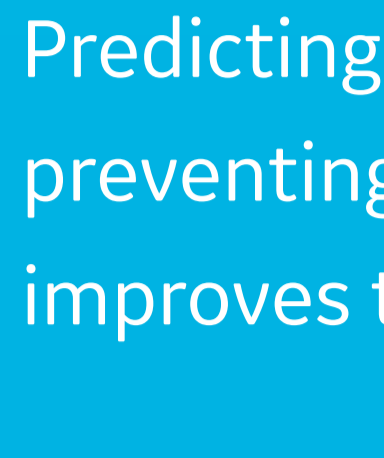




CHEMICAL COMPANIES BRACE AGAINST MARKET VOLATILITY WITH DIGITAL TRANSFORMATION

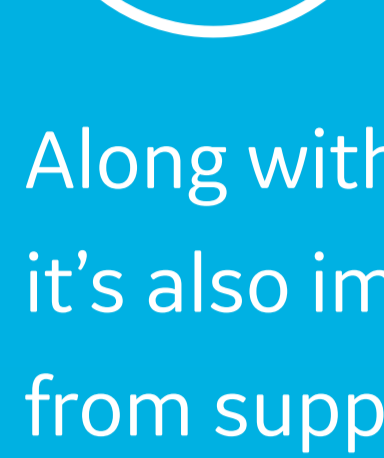
In the past decade chemical manufacturers have suffered highly variable market conditions. Fluctuating raw material costs, trade tensions between nations, and energy surpluses have challenged global organizations to build greater flexibility into their operations without risking safety or customer satisfaction. Digital industrial transformation is the critical element enabling chemical companies to offset market volatility by reigning in asset volatility and bringing predictability to the manufacturing process.

TAKE THE GUESSWORK OUT OF MANUFACTURING OPERATIONS



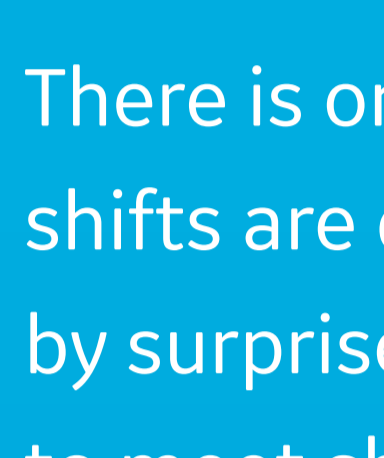
MINIMIZE UNSCHEDULED DOWNTIME

Predicting when equipment failure might occur and preventing it before it becomes a costly problem, improves throughput and production efficiency.



IMPROVE EQUIPMENT RELIABILITY AND YIELD

Along with the downtime of critical production equipment, it's also important to consider how degraded performance from supporting equipment can significantly impact quality and yield. With industrial applications, chemical manufacturers can detect and diagnose when equipment degradation is beginning—preventing downtime and improving yield.



PREDICT THE IMPACT OF CHANGE

There is one thing we know for sure, and that is market shifts are difficult to predict and can sometimes catch us by surprise. Often these conditions offer the opportunity to meet short term spikes in demand. But, at what cost to our equipment stability? Digital transformation initiatives provide the insight needed to maintain agility, and adjust operations to meet short term demand, without negatively impacting long term needs.

POLINTER **REDUCES** REACTIVE MAINTENANCE BY

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14%



THE THREE P's OF MAINTENANCE

- 1 PREVENTATIVE MAINTENANCE**
Preventative maintenance is the process of proactively conducting maintenance tasks to avoid a future equipment failure. Tasks are completed according to a pre-planned schedule and may lead to unnecessary repairs or part replacements.
- 2 PREDICTIVE MAINTENANCE**
Predictive maintenance adds a layer of additional insight into likely equipment failure and informs preventative maintenance schedules to reduce unnecessary tasks.
- 3 PRESCRIPTIVE MAINTENANCE**
Prescriptive maintenance offers the ultimate in efficient allocation of resources because it goes beyond best practice scheduling, to respond to real-time component health analysis.

CRISTAL GLOBAL **REDUCES** THE RISK OF EQUIPMENT FAILURES BY AN ESTIMATED

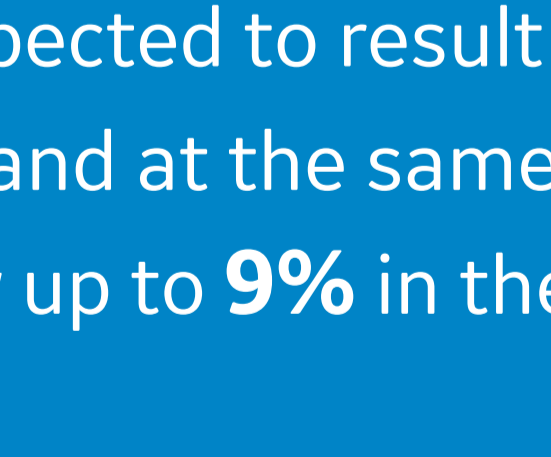
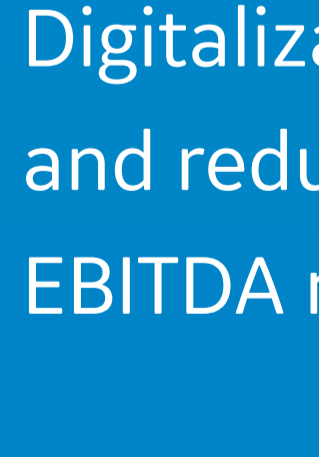
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£ 2.12 MM per year

87% OF CHEMICAL EXECUTIVES BELIEVE THAT COMPANIES FAILING TO EMBRACE DIGITAL FACE EXTINCTION

A recent study by Accenture reports startling evidence that the chemical industry is urgently seeking digital transformation—**87% of chemical executives** believe that companies failing to embrace digital face extinction—for good reason.ⁱ

1 HR of downtime can cost up to **\$250 k** in production lossesⁱⁱ



9%

Digitalization is expected to result in increased revenue and reduced cost, and at the same time, enhance the EBITDA margins by up to **9%** in the industry.ⁱⁱⁱ



7%

Technavio analysts forecast the global third-party chemical distribution market to grow at a **CAGR of over 7% by 2023**.^{iv}

IMPALA PLATINUM **REDUCES** PROCESS VARIATION BY

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40%

Leading chemical manufacturers turn to GE Digital to transform real-time equipment data into predictable performance. Learn how you can unlock these benefits and more with GE Digital's portfolio of industrial applications.

[LEARN MORE](#)

SOURCES ⁱhttps://www.accenture.com/us-en/-/media/Accenture/Conversion-Assets/DocCom/Documents/Global/PDF/Dualpub_6/Accenture-Insight-Digital-Chemical-Survey-Infographic.pdf

ⁱⁱAberdeen Group, Asset Performance Management: Blazing a Better Path to Operational Excellence, November 2017

ⁱⁱⁱ<https://blog.marketresearch.com/3-megatrends-in-the-chemical-industry>

^{iv}<https://www.businesswire.com/news/home/20190108005471/en/>

