



Predix Operations Performance Management

Increase revenue and margins by optimizing the performance and throughput of your plants, sites, and portfolio



How do you meet your operational financial goals?

If you're like most industrial companies, you're being tasked with increasing revenue and margins. But, at the same time, you're facing obstacles that make this a major challenge: a flat global economy, stiff competition, increasing regulations, lower commodity prices, tight budgets, aging assets, retiring workforces, and much more.

So, how do you overcome these challenges to meet your financial goals?

Many industrial companies in leading markets—manufacturing, oil and gas, mining, power, healthcare, and others—are realizing that they need to re-evaluate business models and seek smarter, more efficient modes of operation that focus on improved productivity. While the exact challenges and solutions vary, the path to transformation is similar: improved operations strategies and process improvements that leverage digital technologies to gain real-time operational insights across the value chain.

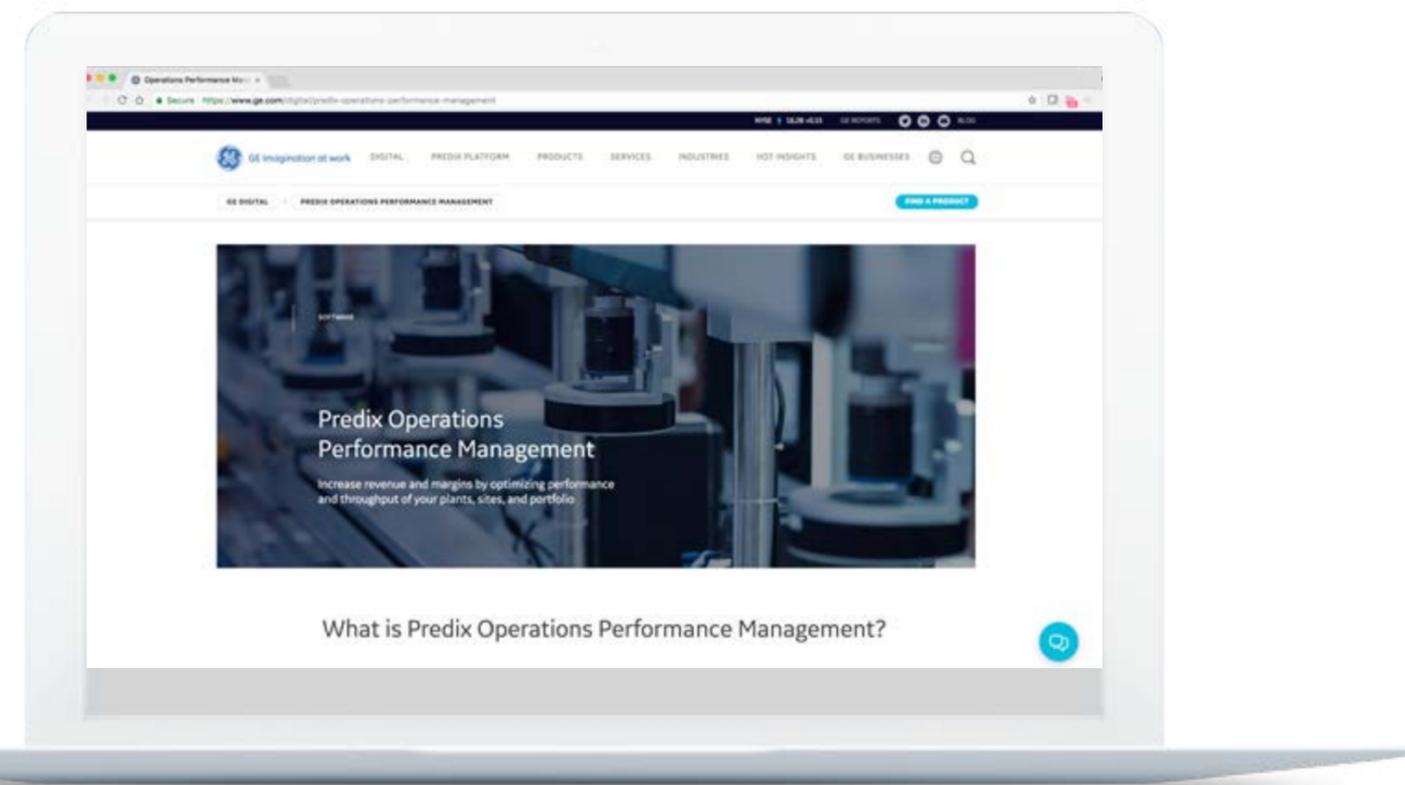


Predix Operations Performance Management

Predix Operations Performance Management (Predix OPM) is a complete control-to-cloud optimization solution. OPM optimizes the performance and throughput of your plants, stabilizing your operation and optimizing yield, quality, and efficiency.

Predix OPM supports operational decision-making so you can rapidly respond to changing conditions. It provides accurate, clear, and complete situational awareness to help you maximize outcomes. And, it enables access to critical production and operations data—anytime, anywhere.

Predix OPM is deployed where needed, on-premises and in the cloud, on GE's Predix Platform. Predix Platform enables industrial-scale analytics and brings the right data to bear, at the right time, to drive better operating decisions.



Benefits of Predix Operations Performance Management

Predix OPM should be viewed as a continual, evolving process. Operational conditions and demands will change over time, equipment will age and be replaced, upgrades and improvements will be implemented, and pressure to reduce costs will always be present. Predix OPM enables dynamic performance management and a continuous loop of improvement.



Benefits of Predix Operations Performance Management:

- Maximized plant production and margins through an efficient and flexible operating planning process.
- Near real-time financial projections for revenue and profit for plant or fleet.
- Leverages output projection and price curves to project cost, revenue, and margin to ensure targets are met.
- Faster time-to-value through an out-of-the box KPI catalog of complex performance and financial KPI calculations, including revenue, process efficiency, and process performance.
- Efficient analysis of loss events (production loss or generation availability), including the impact, root cause, and remediation approach to ensure continuous improvement.
- Confidence that the operating plan will not exceed business constraints, including emissions and production plan.

Real customer results:

10%

increase in throughput
at a mine refinery

10%

reduction in power
plant startup fuel
usage

2.5%

reduction in mine power
consumption

3-4%

increase in power plant
production capacity

3.3%

increase in iron extraction
efficiency



Predix Operations Performance Management Solution Map

Operational Intelligence

Increase efficiency by proactively responding to business KPIs and enabling centralized benchmarking.

- Performance & financial KPIs
- Loss analysis
- Benchmarking
- Situational awareness

Forecasting & What-if Analysis

Scenario analysis and planning to ensure confidence to execute best business outcomes.

- Financial projections
- What-if analysis
- Forecasting
- Process troubleshooter

Process & Production Optimization

Optimize processes and people balancing revenue, costs, and emissions for your sites and fleet.

- Emissions optimization
- Financial optimization
- Process optimization
- Performance optimization



Operational Intelligence

Operational Intelligence, a Predix OPM solution, helps customers increase operating efficiencies and proactively address deviations in business KPIs. This is enabled by access to real-time process-performance indicators, standard enterprise-wide metrics, and line-to-line and plant-to-plant benchmarking. Real-time visibility to operations issues, like margin erosion, allows you to address emerging issues while they're still small, maximizing production and profits.

Operational Intelligence enables centralized benchmarking by:

- Measuring throughput and margin KPIs
- Accelerating time-to-value for plant managers and process engineers with a KPI catalog that provides complex performance and financial KPI calculations, including revenue, process efficiency, and process performance.
- Performing loss analysis
- Creating production plans and track performance towards those plans. Capture the event, reason, analysis, and remediation activities for all events that result in a loss of production output.
- Calculating operations benchmarking
- Easily comparing KPIs among multiple sites and drill down on contributing factors.

Forecasting & What-if Analysis

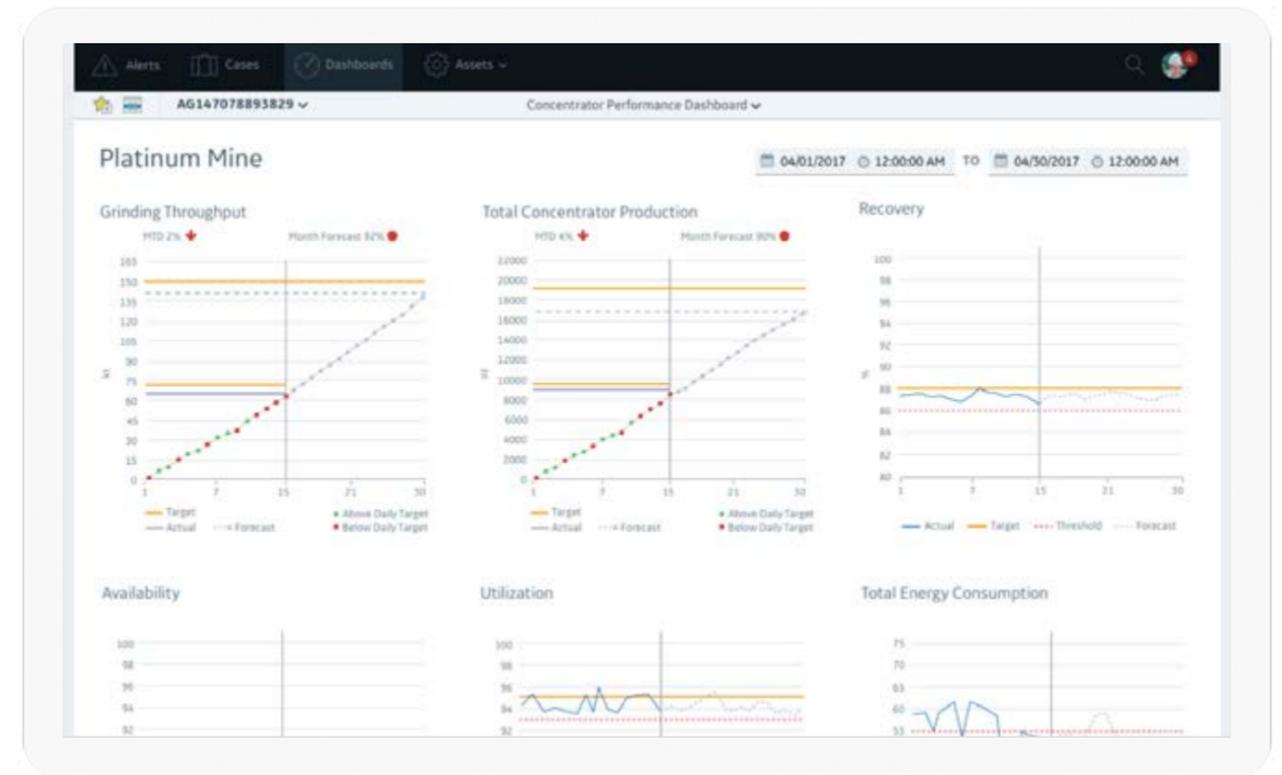
Forecasting & What-if Analysis, a Predix OPM solution, uses scenario analysis and planning to help ensure customers are executing towards the best outcomes for their businesses. This solution utilizes sophisticated digital twin models to drive planning scenarios that reflect plant and site actual performance. Core capabilities of this solution include financial projections, what-if analyses, forecasting, and process troubleshooting. Cloud-based capabilities like process troubleshooting give workers around the world the tools they need to identify process yield, efficiency, and quality improvement opportunities.

By using scenario analysis and planning, you can leverage **process troubleshooter** to analyze detailed process information to derive insight, including contributors to golden batch vs. bad batch.

Process & Production Optimization

Process & Production Optimization, a Predix OPM solution, provides real-time analytics and process controls for site-level process optimization across people, revenue, costs, and emissions to maximize profitability within the fixed constraints of a business.

This capability balances these priorities by enabling process optimization. Process optimization runs optimization routines onsite and leverages the cloud to quickly compare results across multiple sites, making it easy to leverage improvements throughout the entire enterprise.



Bringing stability to operations and boosting recovery and profitability—Lonmin

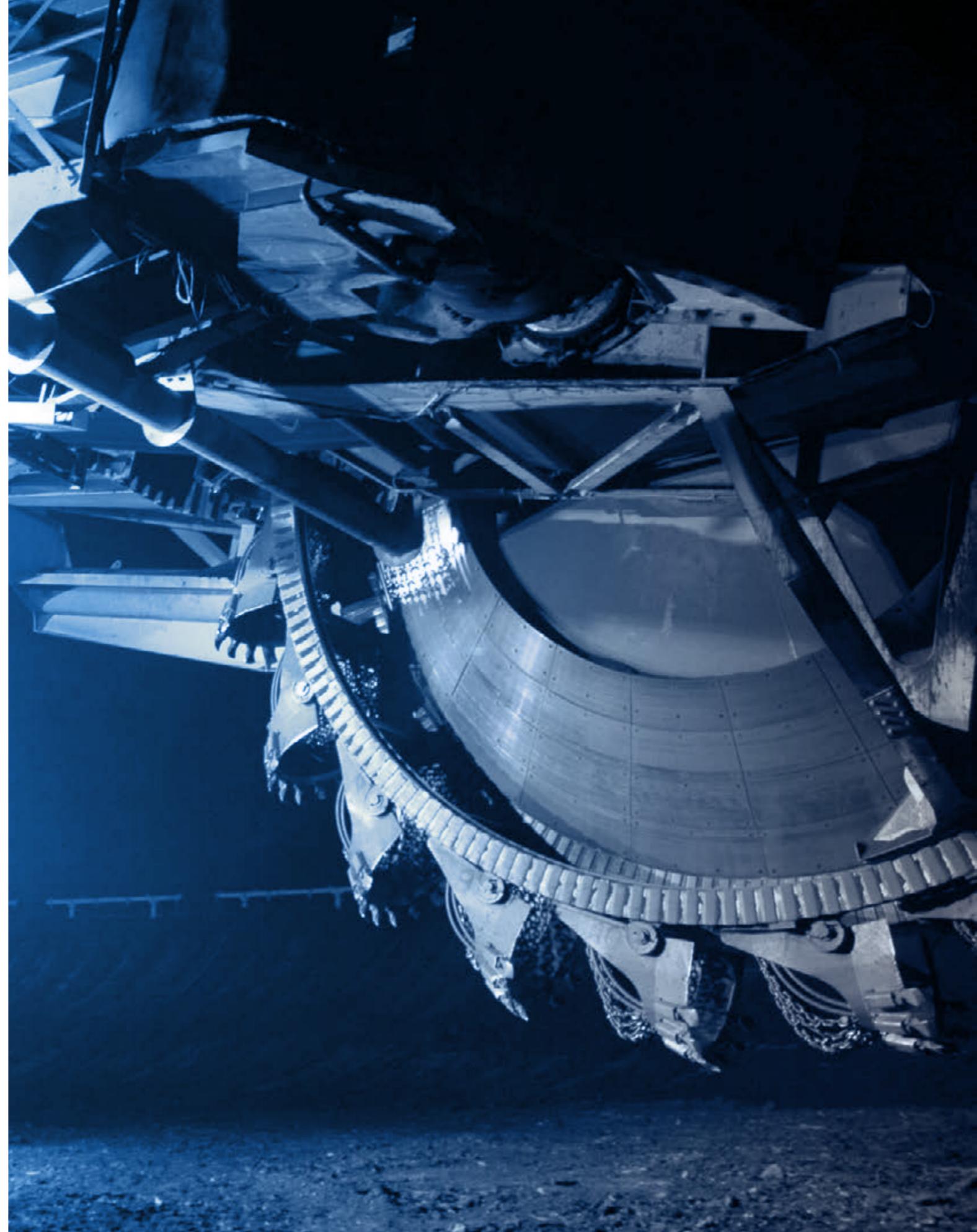
As an operations manager at a South African platinum mine, Percy French faced huge challenges over the past few years due to volatility in commodity prices. The price of platinum had dropped in half, and the value of the South African currency had fallen precipitously. To keep his mine profitable, French had to look for new ways to increase margins and production, which led to partnering with GE.

Read how Lonmin increased production by **1.5%**.

LEARN MORE

“GE products have brought stability to our operations, boosting the recovery of ore and significantly contributing to our bottom line.”

Percy French, Automation and Control Manager, Lonmin



Achieving top quartile in heat rate, along with reduced production and fuel start costs—PSEG

Faced with the challenge of providing economic and reliable power within an environment of low demand and fuel prices, PSEG needed to maintain a profitable business with existing power generation assets. The company realized the potential value of leveraging data from its plants to make more informed decisions about operations and market opportunities. So, to achieve digital industrial transformation, PSEG installed GE software to capture data from machine sensors and to apply sophisticated analytics to create insights and help make more profitable decisions.

See how PSEG integrated technology into its daily business and **gained value from it.**

[LEARN MORE](#)

“(GE’s software) provides us with visibility and insights to our KPIs and allows us to look at the actions that will improve performance at lower costs. When the plant manager talks to his trading counterpart, they are going to be talking real-time data.”

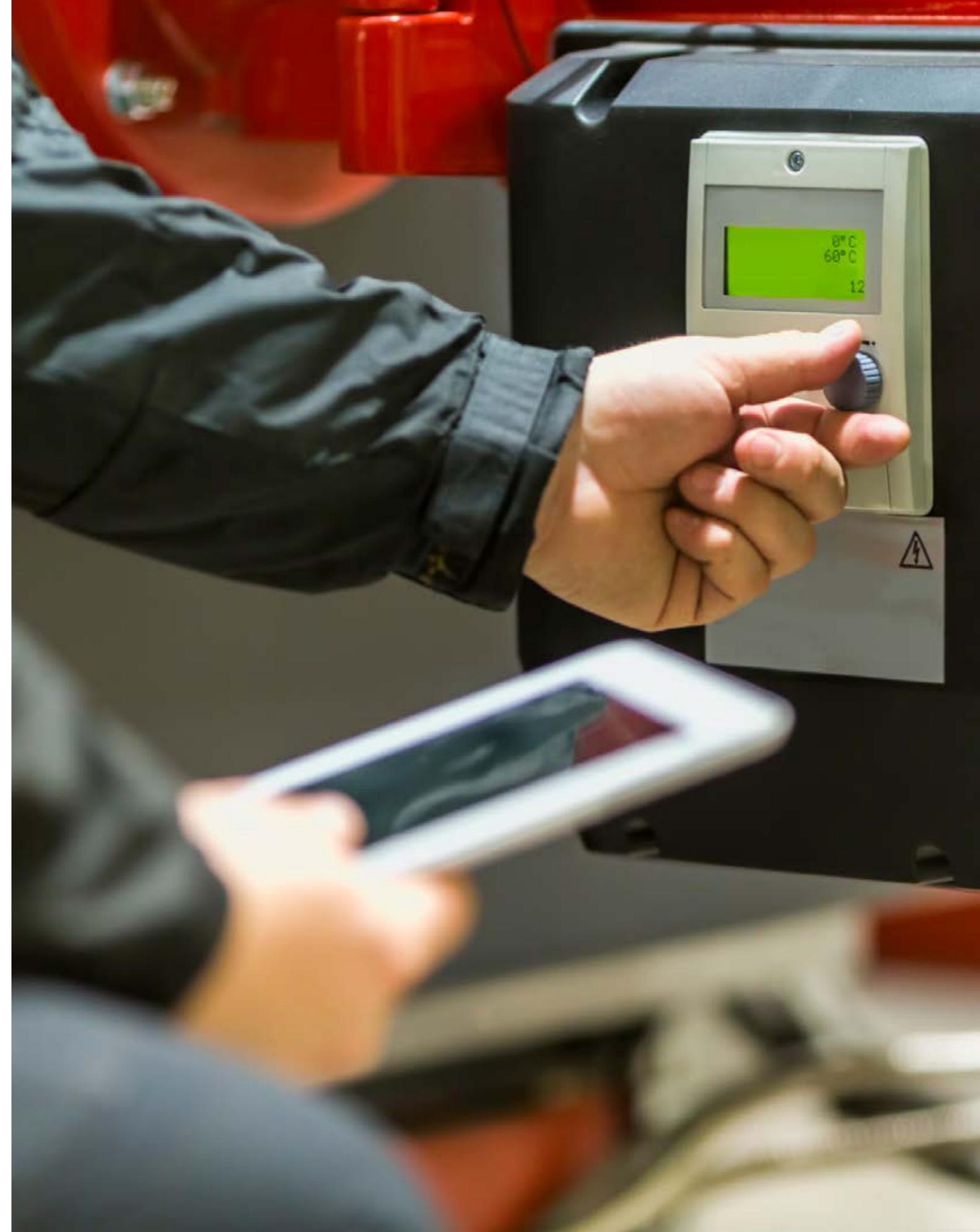
Richard Lopriore, President, PSEG Fossil



Get started with Predix Operations Performance Management today

Are you ready to optimize the performance and throughput of your plants, while stabilizing your operations and optimizing yield, quality, and efficiency?

Learn how [Predix OPM](#) can help





About GE

GE (NYSE: GE) is the world's Digital Industrial Company, transforming industry with software-defined machines and solutions that are connected, responsive, and predictive. GE is organized around a global exchange of knowledge, the "GE Store," through which each business shares and accesses the same technology, markets, structure, and intellect. Each invention further fuels innovation and application across our industrial sectors. With people, services, technology and scale, GE delivers better outcomes for customers by speaking the language of industry.

Contact Information

Americas: 1-855-YOUR1GE (1-855-968-7143)

gedigital@ge.com

www.ge.com/digital

