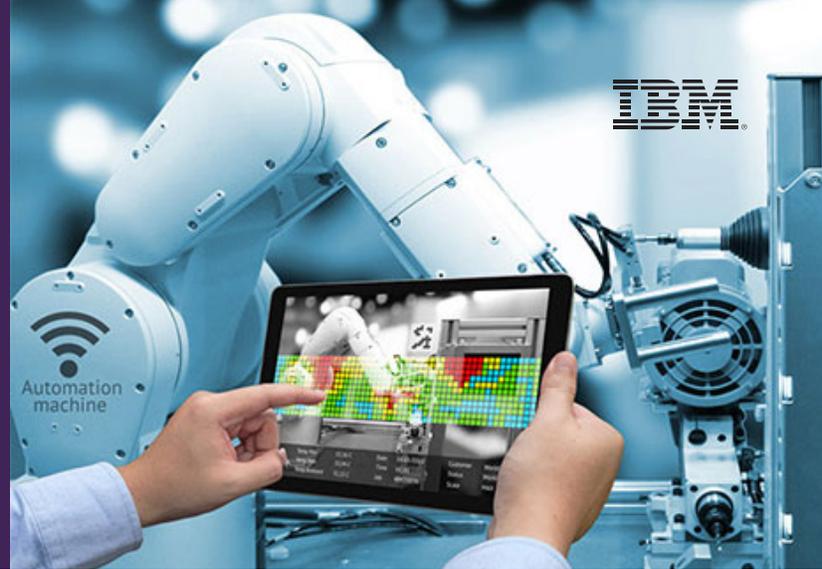# IBM **Watson IoT**™

IBM®

Optimize production with AI-powered technology

What are the challenges?

At its core, Industry 4.0 is about connectivity, data integration, and analytics. It is about making factory operations and industry processes smarter. This means making factories and industrial processes/generation more interconnected, more responsive, and more adaptive to change and disruption. It is about helping these multi-industry operators correlate variables across the shop floor, and operating ecosystems, to factors like availability, performance, and quality.

Smart manufacturers and operators see the potential in Industry 4.0. Based on recent studies more than half expect a connected industrial workforce to drive significant production improvements. And an overwhelming majority describe it as an essential element of their business strategy—with 62 percent saying they want to lead in setting its agenda.

How IBM IoT can help?

Smart manufacturers and operators are looking for solutions that can help them predict and pinpoint potential Overall Equipment Effectiveness (OEE) losses at the machine and process level—and prescribe an optimized remedy.

IBM Production Optimization solutions use machine learning and AI to help achieve production targets. This solution can help manufacturers and operators spot patterns in machine and process data. This helps eliminate availability, quality, and performance constraints that contribute to OEE loss and result in lower throughput.

Outcomes

IBM is engaging with countless customers across all types of manufacturing to bring our AI-powered approach to the factory floor. Successful use cases include aluminum smelting energy efficiency improvements, injection molding downtime reductions, steel process quality improvements, automotive body shop predictive downtime, and cement mill optimization between quality and energy consumption.

Benefits include the ability to:
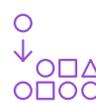
Predict
Predict and localize potential constraints to productivity by turning plant floor data into actionable insights for plant management. This includes calculating availability, performance, and quality losses at the individual device and station level.

Prescribe
Prescribe remedies to mitigate productivity risks using machines learning to recommend the best course of action. Optimization algorithms help prioritize maintenance tasks and recommends the best time to repair machines.

Optimize
Achieve throughput to potential with industry content. Reduce unplanned downtime and slowdowns, avoid costly rework, and achieve OEE improvement while reducing costs due to waste and inefficiency.

Across these use cases, IBM is able to drive the following:

– Drive manufacturing excellence and value chain efficiency in profound ways.

– Help the customer identify losses and eliminate waste by leveraging AI capabilities across their manufacturing and production plants.

– Typical pain point targets could be: reducing downtime loss by 10 percent, reducing quality loss by 50 percent, and reducing performance loss by 10 percent.

Learn more about the IBM Production Optimization solutions at: **ibm.co/productionoptimization**