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# ABB Ability™ Asset Performance Management for Process Industries

Reliable information for actionable decisions

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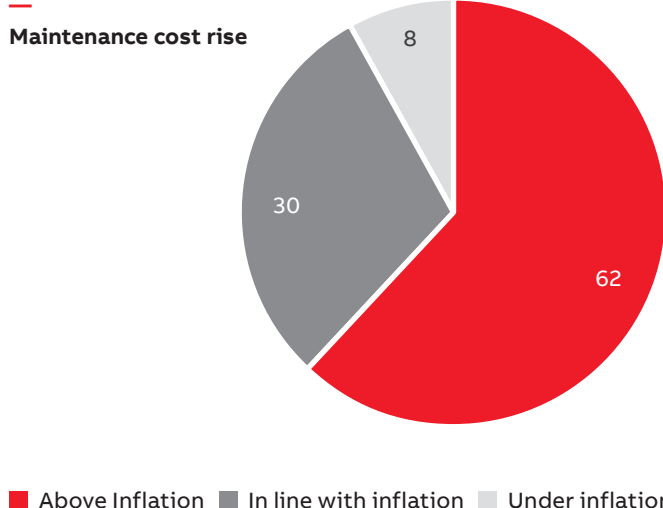
More than ever, companies realize that Asset Performance Management plays a key role to remain competitive and overcome challenges to stabilize productivity and reduce uncertainties. Avoiding unplanned shutdowns and reducing unnecessary interventions are the key objectives of companies that are mature in reliability-centered maintenance.

# Maintenance matters. However, many companies are struggling.

Recent surveys identify that 62% of companies are experiencing continuous increases in maintenance costs, up to 10% above inflation. At the same time, cost reduction pressure is increasing as maintenance's slice of the operating budget are getting squeezed.

Companies also reported a systemic reduction of skilled workforce available in the market to fill positions. Coupled with a greying workforce that is nearing retirement, there is critical challenge to ensure knowledge is captured and transferred to the next generation workforce.

Source: McKinsey Asset Productivity Survey 2022



## Analytical steps

- 1 **Identify** existing conditions on assets
- 2 **Understand why** conditions are happening
- 3 **Foresee** what will happen next
- 4 **Recommend** solutions

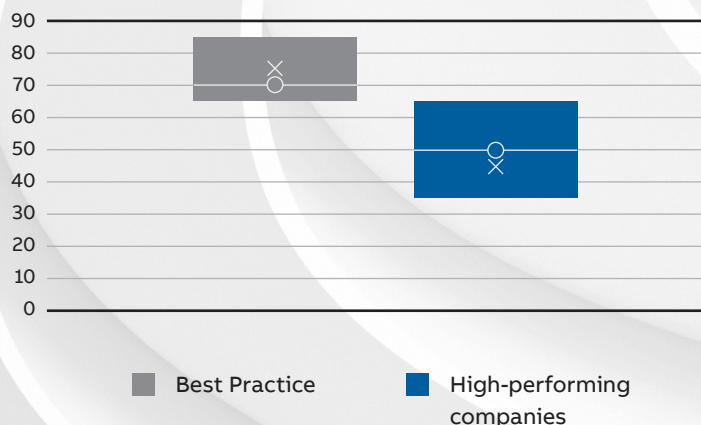
Maintenance crews also face challenges at tactical and operational levels in their daily routine. Often, SMEs (Subject Matter Experts) are spending their limited time performing repetitive tasks and manually collecting data from disparate systems. These tasks could be easily automated across maintenance organizations, allowing more time for deeper analysis, and supporting the evolution toward Strategic Asset Management.

## “The foundation is prevention”

“In companies with mature reliability-centered maintenance (RCM) capabilities, around 70 to 85 percent of technician hours are spent on preventative maintenance (PM) activities.”

Even high-performing organizations say they spend to few hours on preventative maintenance.

Average share of technicians hours spent on preventative maintenance (%)



Source: McKinsey Asset Productivity Survey 2022

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# Introducing ABB Ability™ Asset Performance Management for Process Industries

Recent technological advances in areas like sensors, processors, networks, databases, and coding languages are redefining Asset Performance Management solutions. These advances permeate ABB's core, as part of our organic development.

In addition, ABB's domain-expertise across process industry verticals has enabled the development of an integrated suite of Asset Performance Management solutions that delivers real value, with reliable and meaningful information about the process and asset to sustain actionable decisions.

ABB's Asset Performance Management portfolio of solutions was designed to be seamlessly integrated as an ecosystem to the existing OT and IT environments.

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## A suite of Scalable APM applications “ready for use” to support:

- Daily maintenance routines, making use of our ABB Ability Platform
- Handling the data from disparate sources in typical Asset Models
- Continuously performing iterations within its algorithms to evaluate assets health and detect impending issues.
- Classifying issues according to the type of failure mode and severity.
- Publishing information in dashboards, reports, files, and other means to be consumed by further systems, such as ERP and CMMS.

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## An entire Next Generation APM ecosystem that, in addition to scalable applications, allows users to:

- Develop their own applications, scripts, reports, and dashboards
- With maintenance-oriented templates, allow users to perform failure prediction with ML techniques and methods.
- Easy to code scripts, widgets and dashboarding frameworks allow users to create or modify tools for reliability analysis, maintenance optimization, lifecycle, and risk management.

## Scalable APM applications

Quick detection of impending issues, root-cause with recommendations. Assessment of severity level and health indexes. Ready-to-use standard models, easy to deploy and scale.



### Identify active conditions

- Failure Modes, Effects and Cause Analysis converted in algorithms
- Detect impending issues before it impacts downtime
- Identify root-causes and see recommended actions



### Assess health and severity

- Based on severity level of impending issues, calculate the Health Index
- Visualize the propagation of Health Indexes through the Asset Structure
- Group asset types in intuitive dashboards
- Find critical assets and chronicle issues.

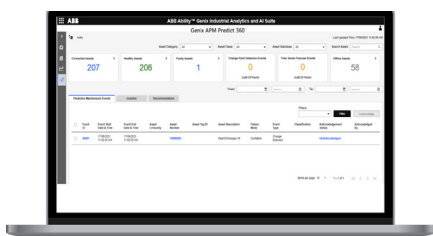


### Deploy and Scale

- Easily deploy standard ready-to-use models to monitor new assets
- Modify, increase, or reduce asset structure with inheritance of data
- Add new views by using auto-

## Next Generation APM

Develop new models, algorithms, dashboards, and reports using a maintenance-oriented platform. Integrate to enterprise level systems and evolve to Digital Strategic Asset Management



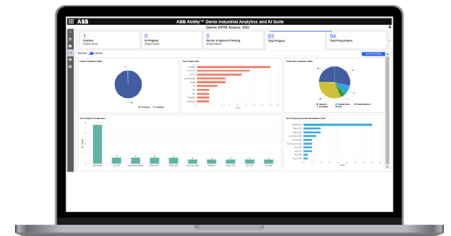
### Develop new models and algorithms

- User-friendly framework for Asset Model development
- Data structuring templates and typical logical operators for algorithms building
- Machine Learning environment for anomalies detection and testing



### Create new reports and dashboards

- Maintenance and reliability-oriented templates for dashboarding and reporting
- Library suite of specific widgets easy to deploy
- Pre-defined scripts for maintenance and reliability specific indexes



### Move towards Strategic Asset Management

- Open platform for integration with Enterprise Level (ERP/CMMS) solutions for data sharing
- Combine operational and maintenance data with enterprise data to automate strategic reporting

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# Enhance your Asset Performance Management today

No matter how far you are in your Digital APM journey, ABB has the technology and expertise to capitalize on your prior investments and reinforce your existing asset performance

management strategy by continuously developing new features and applications for Asset Performance Management with best-in-class technology and services.

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## ABB Ability™ Industrial Software Solutions that revolve around you

Combine ABB deep domain expertise with connectivity and software innovation to empower real-time, data-driven decisions for safer, smarter operations that maximize resource efficiency and contribute to a low-carbon future.



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## Contact an ABB Expert



Or learn more on how ABB can assist you in your Asset Performance Management journey by visiting:

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[abb.com/industrial-software/asset-performance-management](http://abb.com/industrial-software/asset-performance-management)