



BROCHURE

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# AVEVA™ Predictive Analytics

Imagine the power of knowing how your assets will behave in advance. With AVEVA Predictive Analytics, it's possible.

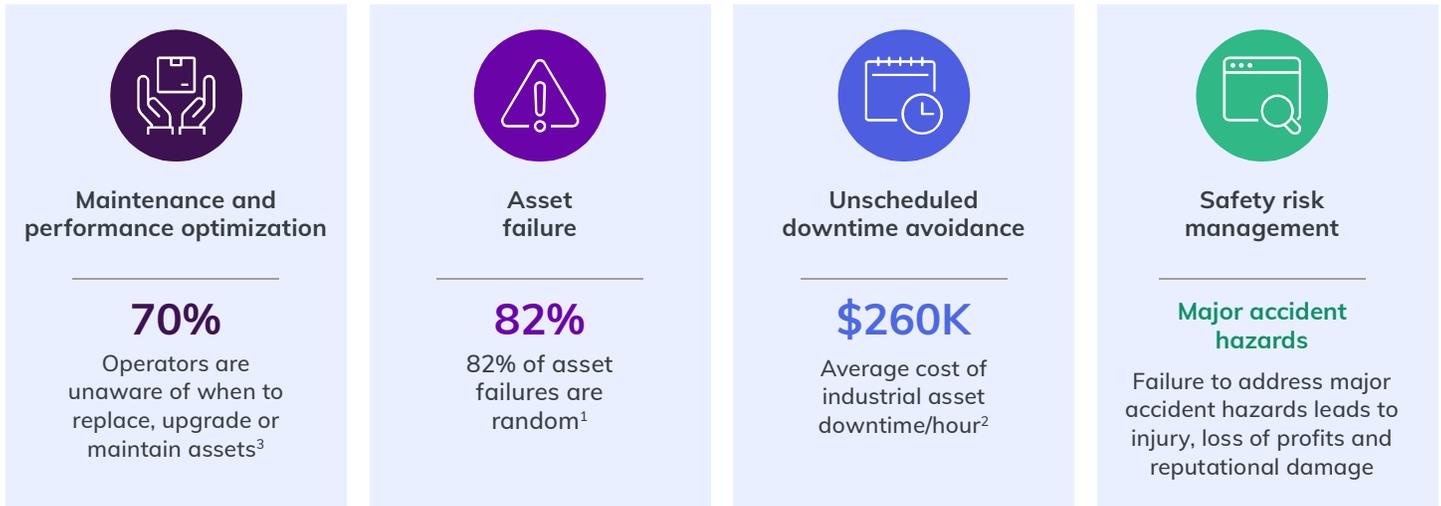
Traditionally, industrial enterprises have taken a reactive maintenance approach—because they had to. But digitalization has opened up new opportunities to proactively manage asset maintenance. Data, interpreted through the right solutions, gives you the knowledge, insight, and even warnings you need to optimize your maintenance strategies, dramatically cutting unplanned downtime and saving you double digits in OpEx every year.

AVEVA Predictive Analytics is a powerful tool that gives companies a competitive edge through predictive and prescriptive maintenance. When used in conjunction with AVEVA™ PI System™, you can diagnose equipment issues weeks or months before they occur.

**AVEVA**

# Industry challenges

Predictive maintenance can enable 10-20% reduction in OPEX



## Sources

<sup>1</sup>Arcweb.com <sup>2</sup>Aberdeen <sup>3</sup>Vanson Bourne

## Time is money. Money is data.

Your company is producing massive amounts of data—but how much are you actually using to your benefit? Most industrial operators use only **32%** of the data they continuously collect. The majority of industrial asset operators lack the visibility they need to determine when to replace, upgrade, or maintain those assets. By analyzing much fuller data sets, operators can save millions by preventing unplanned downtime and stopping asset failures before they start, all while improving safety and mitigating risk.

A recent DOE **study** found that predictive maintenance can reduce maintenance costs by 30% and downtime by 45%.

## Why AVEVA Predictive Analytics?

AVEVA Predictive Analytics delivers prescriptive and prognostic insights as well as recommendations based on likely outcomes, giving you the tools you need to take action. You can easily verify model accuracy and use that information to improve future analyses.

### The AVEVA Predictive Analytics difference

- A proven solution used by industrial operations for over 15 years
- No-code artificial intelligence (AI) and machine learning (ML) capabilities
- A self-service, templated approach makes it easy to build, maintain, and scale models
- Advanced alerts and case management connect workers and facilitate knowledge capture
- Easily identify the most probable failure mode and forecast the remaining time before an asset reaches a critical failure condition
- Tightly integrated with monitoring and diagnostic services to offer assistance in interpreting data and formulating responses

## A “better together” approach: Native AVEVA PI System integration

AVEVA Predictive Analytics and AVEVA PI System seamlessly work together to allow users to generate faster, deeper insights. AVEVA Predictive Analytics users can cleanse AVEVA PI System data, develop no-code, AI-driven predictive models across one or multiple AVEVA PI Systems, visualize findings in AVEVA™ PI Vision™, and analyze results to identify potential asset failures before they occur.

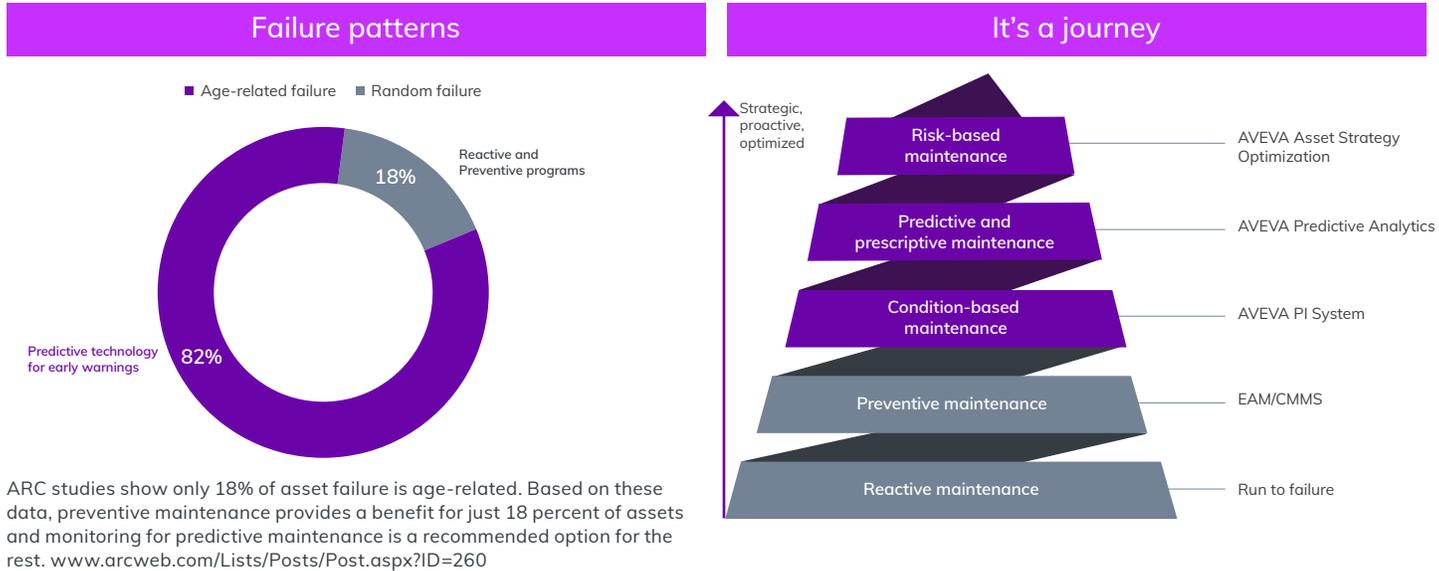
AVEVA Predictive Analytics also integrates with other components of AVEVA PI System, including the asset framework for asset analytics, asset relative displays, event frames, and system notifications.

AVEVA Predictive Analytics and AVEVA PI System:  
A simple, seamless approach

- Combine real-time and historical information from AVEVA™ PI Server with no-code AI and ML models to prevent critical asset failures and increase reliability, resulting in less production loss and increased profit – no data scientists needed.
- Add understandable and actionable context from AVEVA PI System to AVEVA Predictive Analytics insights.
- Identify potential issues and provide actionable insights and recommendations for next steps.

## Optimize your asset reliability, maintenance and performance

### A journey in operational reliability with AVEVA PI System and AVEVA Predictive Analytics



## The AVEVA Predictive Analytics difference

### Best-in-class fault diagnostics

A successful predictive analytics strategy requires companies to collect, organize, and analyze data, including real-time sensor, historical operations, and financial impact analysis data, and deliver that information in context to users. AVEVA Predictive Analytics leverages real-time data to give users timely fault diagnostics alerts and provides users with the appropriate context to interpret those alerts.

### With AVEVA Predictive Analytics, you have access to:

- Meaningful insights with fault diagnostics and the ability to log best practices for continuous improvement
- Sensor fault detection that ensures a quality predictive model and reliable accurate analytics
- Precise, real-time insights to identify and diagnose potential issues
- Estimated asset failure time, enabling teams to prioritize maintenance repairs and plan maintenance strategies
- Prescriptive analytics with recommended tasks to remediate the problem

### Operational scale

The difference between stagnant and scalable is AI and ML. With AVEVA Predictive Analytics, teams have access to AI and ML capabilities, right out of the box. Using a templated approach, they can scale up quickly and uncover new insights into asset behavior.

## Key features

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### Intuitive, automated model-building

Build, validate, and deploy no-code predictive models in an intuitive user interface. Use existing templates to autonomously deploy new predictive models for the same asset type, saving resources, reducing errors, and increasing consistency. Send results back to AVEVA PI System and visualize alongside contextual information using AVEVA PI Vision.

### Custom algorithms

Use built-in templates, sensor pre-processing, data cleansing, and more to customize algorithms. Or, give data scientists the tools they need to create fully custom algorithms.

### Alerts and notifications

Configure alerts to receive early warnings when asset performance deviates from set parameters. Link alerts to diagnostic, prescriptive, and prognostic asset information, or even alert responsible stakeholders of any changes.

### Time-to-failure forecasts

Get estimated failure times to prioritize repairs and determine whether to operate an asset until the next planned maintenance outage or initiate an urgent shutdown.

### Prescriptive actions

Get prescriptive advice and recommended actions, including predefined tasks, to remediate performance issues and plan maintenance strategies.

### Transient module

Monitor and compare abnormal conditions during transient events using previous transient events stored in historical data.

### Calculation engine

Develop simple and complex calculations to create soft sensor inputs for models and use results to increase fidelity and analysis.

### Case management

Integrated case management allows for active task management and ensures smooth collaboration and knowledge transfer.

### Fault diagnostics

Clearly understand how current asset performance relates to asset fault conditions, including individual sensor analysis, to ensure accurate diagnostics.

## Save money and avoid the cost of catastrophic failure with AVEVA Predictive Analytics



Companies around the world have used AVEVA Predictive Analytics to save money on maintenance and mitigate costly failures.

Whatever an organization's vision for the future, it should include predictive and prescriptive maintenance strategies to grow. Successful predictive maintenance strategies prioritize integrated solutions that unlock value from industrial data silos, maximize labor productivity, and drive continuous operational improvement.

As workforces evolve, the systems that enterprises use to make critical decisions should include new technologies that democratize data, enabling teams to collaborate better and giving them the confidence to make faster, more accurate decisions.



## An award-winning solution recognized by experts

Recognized as industry leaders by analysts: IDC, Frost and Sullivan, and Verdantix



**PETRONAS**

Petronas wins Malaysia Technology Excellence AI and Analytics Award for oil and gas



SCG wins 2021 Hydrocarbon Best Asset Monitoring Technology Award



Suncor wins President Award with AVEVA Predictive Analytics



OPG wins Canadian Nuclear Achievement Award



NLNG wins President Award with AVEVA Predictive Analytics

AVEVA Predictive Analytics: Powering innovative companies around the world

Are you ready to take your maintenance strategy to the next level?  
Talk to one of our [experts](#) today.

**AVEVA**

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