

5 success factors for achieving reliable operations

For manufacturers and processors across industries, achieving operational reliability is one step toward operational excellence. You might think of reliability in terms of asset availability and reducing unplanned downtime, but that's just the start. It also means increasing overall equipment effectiveness (OEE) by infusing your data with artificial intelligence (AI), machine learning (ML), and prescriptive guidance to connect people, optimize processes, and maximize asset reliability.

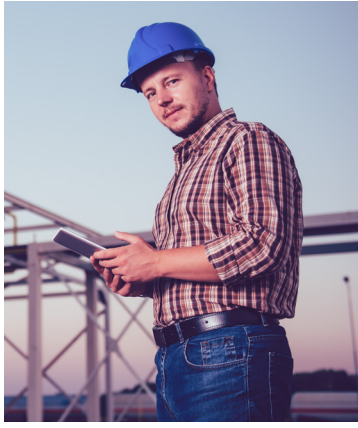
Like any initiative that aims for continuous improvement, creating operational reliability for your business is a journey. Along the way, each win will be a success factor for sustaining and growing your business.

1 Embrace the cloud

Leverage speed and simplicity for new technology and operational data.

To achieve sustainable and profitable industrial operations, modern industry requires reliable systems and data. You can speed and simplify the adoption of new technology by accessing it in the cloud, with its flexibility and scalability benefits.

As a data solution, the cloud can provide a single source of truth for people throughout your organization, whether the applications and systems they use reside on premises, at the edge, or in the cloud.



2 Bring more data to more people

Unlock value by freeing data from industrial silos.

Maximize the value of your data by making it consistently available throughout the company via a digital thread that bridges data silos and parts of your business with a single version of the truth. Enable better and faster decision making by offering complete visibility of operations and asset performance. This approach is foundational in enabling a connected workforce to drive safe and reliable operations and to identify new improvement opportunities.

You can also incorporate advanced capabilities such as AI, predictive modeling, and digital twins to software-based manifestations of assets and systems that enable you to safely test changes without disrupting actual operations. Visualize your asset performance across the entire operations lifecycle with KPI-specific dashboards that drive the collaboration you need to achieve operational reliability.

3 Improve across the enterprise

Adopt an enterprise-wide continuous improvement plan.

It's not enough to support reliable operations across one element of your organization. A continuous improvement plan should bridge Information Technology (IT), Operations Technology (OT), and Engineering Technology (ET), all unified by a digital thread.

This promotes improved incremental capability and sustainability through frictionless data sharing and information access across technology platforms. Plus, it brings complete operational awareness across engineering and operations through the digital thread and advanced visualization capabilities that connect your workforce.

4 Put AI and ML to work

Operationalize and scale artificial intelligence and machine learning.

With AI and ML, you can transform your industrial data into predictive and prescriptive asset strategies that reduce unplanned downtime and maintenance costs, ensure workforce safety, and build sustainable operations. Analyzing your historical data and evaluating trends can help you understand asset criticality, supporting business objectives and ensuring that resources are prioritized for the assets that are most important for reliable operations.

For example, on average, OEE can improve by 15% by managing your production reliably at the maximum sustainable asset performance and by reducing unplanned production downtime. Optimize further and drive sustainable growth by leveraging process analytics like predictive quality for identifying process deviations during production, predictive throughput for evaluating thousands of variables in order to optimize production rates, and predictive energy efficiency for identifying the operating conditions that minimize energy consumption.



5 Anticipate supply and demand

Proactively optimize your value chain.

It takes complex value chains to deliver on-time and in-full to meet demands. Reliability requires a precise balance between resources, processes, and assets. While traditional operations technology models depict a linear flow of data, proactive optimization introduces a bi-directional flow of information so that all teams are aware of current production demands and constraints.

Anticipating supply and demand requirements is crucial to minimizing impactful downtime. A digital thread provides your teams with decision support for accurate operational planning based on actual plant and inventory conditions. Operational execution can be dynamically optimized using advanced process control and advanced data analytics.

With end-to-end visibility across operational assets and processes, autonomous digital twins, and AI-driven insights, you have the performance intelligence and the decision support you need to optimize your asset and production performance.



See how industrial companies are using AVEVA solutions to proactively achieve reliable operations.

- Duke Energy uses predictive analytics to increase reliability by centrally monitoring power generation assets.
- SCG Chemicals selected AVEVA software to help deliver the reliability, agility and maintenance savings needed to transform operations.
- General Mills turns to Industry 4.0 and AVEVA to accelerate its digital transformation strategy.

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Using these questions as your guide, you can search for the right platform backed with greater clarity as to what it is any good platform should provide.