



Asset Optimization:
The Future of Reliability and Profitability

Accelerate Operational Excellence, Drive Profit

As current economic challenges and increasing competitive pressures drive capital-intensive companies to do more with less, businesses across industries are focusing more than ever on lowering costs and accelerating operational excellence.

With narrower margins and no room for error, leaders are embracing the need for asset optimization.

Imagine if you could:

- Model an entire site to save hundreds of millions of dollars in capital investment.
- Safely operate equipment at the limits of performance to add millions of dollars in capacity.
- Reduce downtime and improve reliability to achieve production increases of 3-5 percent.
- Optimize production for better throughput to increase margins by millions of dollars.
- Anticipate and avert equipment failures with months — not just days — of advance notice.
- Avoid the 82 percent of “random” failures that preventative maintenance overlooks¹.

Are you ready to unlock the game-changing value that asset optimization can deliver?

Industries That Can Realize Transformative Results Through Asset Optimization

Oil & Gas

Basic and Specialty Chemicals

Polymers

Pharmaceuticals

Power & Utilities

Water & Wastewater

Industrial Transportation

Pulp & Paper

Consumer Products Goods (CPG)

Metals & Mining

Engineering & Construction

Improve Efficiency, Increase Productivity Throughout the Lifecycle

Asset optimization — maximizing performance, uptime and life span in a system-wide context — is a key factor in generating the greatest returns on capital employed. This approach harnesses the power of Industry 4.0 technologies, leveraging data from a vast network of industrial sensors and systems to improve the design of assets and processes, streamline operations throughout the system, and apply prescriptive maintenance. In addition to maintenance, advanced data analysis also enables companies to discover ways to increase throughput, improve yields, reduce energy consumption and improve quality — all leading to significant increases in profits.

These are just a few examples of what can be achieved:

- A large petrochemical producer realized **\$16.3 million per year** in energy savings and **\$2.8 million per year** in product recovery benefits through site-wide reduction in energy use.
- A global EPC company reduced its conceptual estimation effort by **50 percent** and reduced calculation hours by **90 percent**.
- A major oil producer saved **\$30 million** in CAPEX by optimizing blowdown systems on an offshore brownfield project.
- A global oil and gas company saw a **\$10 million per year** benefit by implementing advanced process control in a single refinery.
- A major refiner increased refining profits by **\$10 million per year** from inter-refinery transfers of key streams.

Through asset optimization, the assets themselves can now be viewed as an area that delivers true value via increased productivity and reduced costs.



Asset optimization involves taking a holistic view of your system to maximize the performance and life of assets throughout the design, operate and maintain lifecycle.

Join the World's Top Performers

As an industry leader, your focus is on business value. Studies show that companies using smart sensors, real-time analytics and other blends of computing power and industry can achieve noteworthy gains in value and profitability. Aberdeen Research surveyed manufacturing organizations and found that top performers are 74 percent more likely to view their asset status via real-time, event-driven dashboards.

Through the use of data and analytics, these best-in-class companies also realized:

15% average reduction in unplanned downtime

7% increase in quality, on average

Aberdeen²

Advanced manufacturing, design and operational techniques have become the hallmark of the world's top-performing companies. There's no competing with these organizations on efficiency, which is the key driver of success in a world of unpredictable markets.

Other businesses will either adopt these techniques or find themselves out-manuevered.



“A new class of technology has arrived to bring predictive and prescriptive power to manufacturing and beyond. These tools fall under the category of asset performance management and deliver new insights into asset and process performance.”

- Antonio Pietri,
President and CEO,
AspenTech

Excel with AspenTech by Harnessing the Power of Data

We make the best companies better by optimizing the asset design, operation and maintenance lifecycle in complex, industrial environments. We fuel our customers’ competitive drive by pushing the boundaries of what’s possible in modeling, simulation and optimization.

We’re extending optimization’s reach by combining our process modeling expertise with machine learning. Machine learning can now pinpoint where, when and how equipment needs to be fixed, well before it fails. We’ve been managing and analyzing sensor-driven data for decades, and our software is purpose-built and hardware agnostic for seamless integration across the enterprise.

Simply stated, we have the solutions and expertise to unleash the advantage locked inside every asset, regardless of the complexity of your process. We’ll help you maximize profitability and productivity without ever compromising safety, reliability or regulatory compliance.

For more information on the solutions we offer to cover the full design, operate and maintain lifecycle, visit us at www.aspentech.com.

Sources

¹ ARC Advisory Group, “[Proactive Asset Management with IIoT and Analytics](#),” Jan 2015

² Aberdeen, “[IIoT and Analytics: Better Manufacturing Decisions in the Era of Industry 4.0](#),” Aug 2017

AspenTech is a leading software supplier for optimizing asset performance. Our products thrive in complex, industrial environments where it is critical to optimize the asset design, operation and maintenance lifecycle. AspenTech uniquely combines decades of process modeling expertise with big data machine learning. Our purpose-built software platform automates knowledge work and builds sustainable competitive advantage by delivering high returns over the entire asset lifecycle. As a result, companies in capital-intensive industries can maximize uptime and push the limits of performance, running their assets faster, safer, longer and greener.

www.aspentech.com

