

Surfing the Quality Wave

How to Dive Deeper into Data-Driven Quality Management

Quality is paramount for manufacturers—and it only takes a single quality issue to lose a customer forever. Manufacturers who run disparate systems will lack confidence in their data, have more potential for defects, and experience increased costs. Siloed systems for areas like quality, manufacturing, testing, inspection, and reporting can cause major issues throughout the enterprise.

In this digital transformation era, there are many opportunities to improve. Having a holistic and data-driven approach to quality management with total product and process traceability enables manufacturers to quickly and proactively respond to quality issues anywhere in the value chain. This unified approach to data is key to strengthening customer loyalty, improving quality, simplifying compliance, and mitigating operational risk.

Let's explore how manufacturers can mitigate quality challenges by leveraging data-driven solutions—allowing them to ride the quality wave and differentiate their businesses.



Manufacturers' View on Quality

Manufacturers view quality as a necessary part of production. According to Aberdeen Strategy & Research, the majority of manufacturers consider quality a regulatory process and a strategic planning activity¹. They say quality is:



52%

A process to maintain standards and meet regulations



52%

A strategic planning activity for PLM & supply chain management



47%

The compliance activity that validates customer needs



45%

A competitive advantage



41%

The result of continuous improvement strategies (Lean, Six Sigma)



39%

The collaborative thread across operations



38%

A money saving policy and technique to manage projects



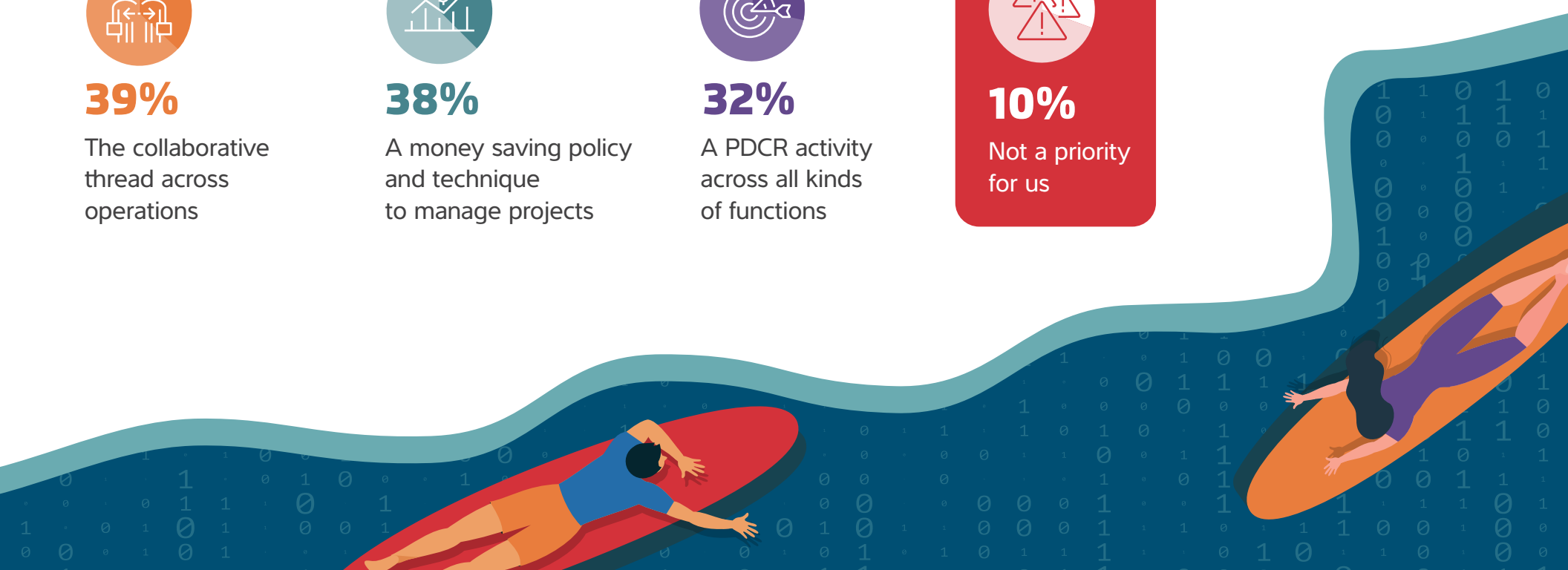
32%

A PDPCR activity across all kinds of functions



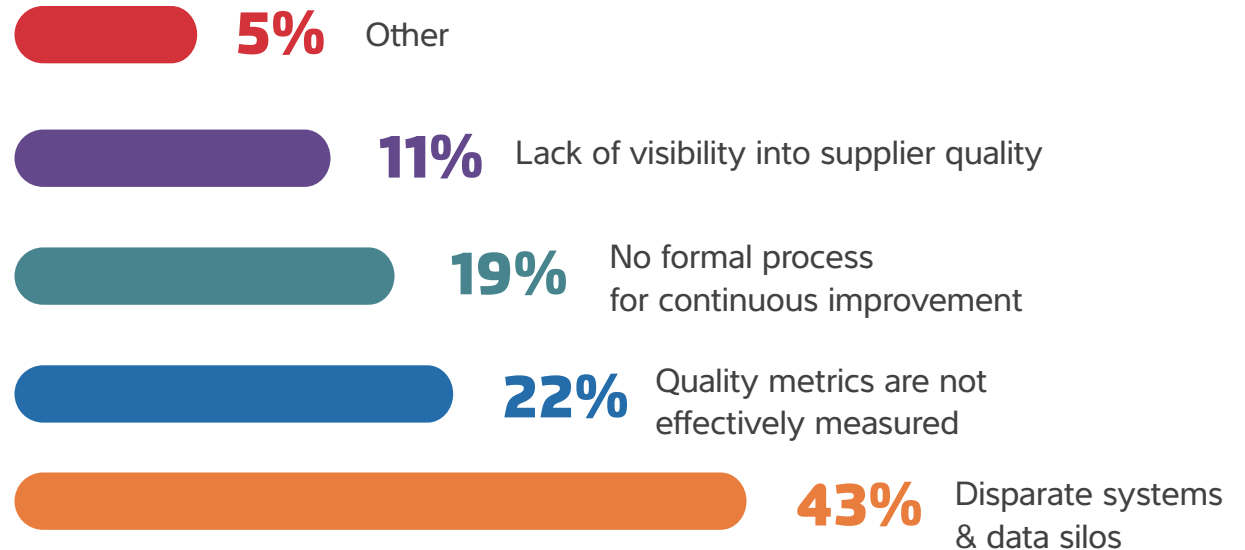
10%

Not a priority for us



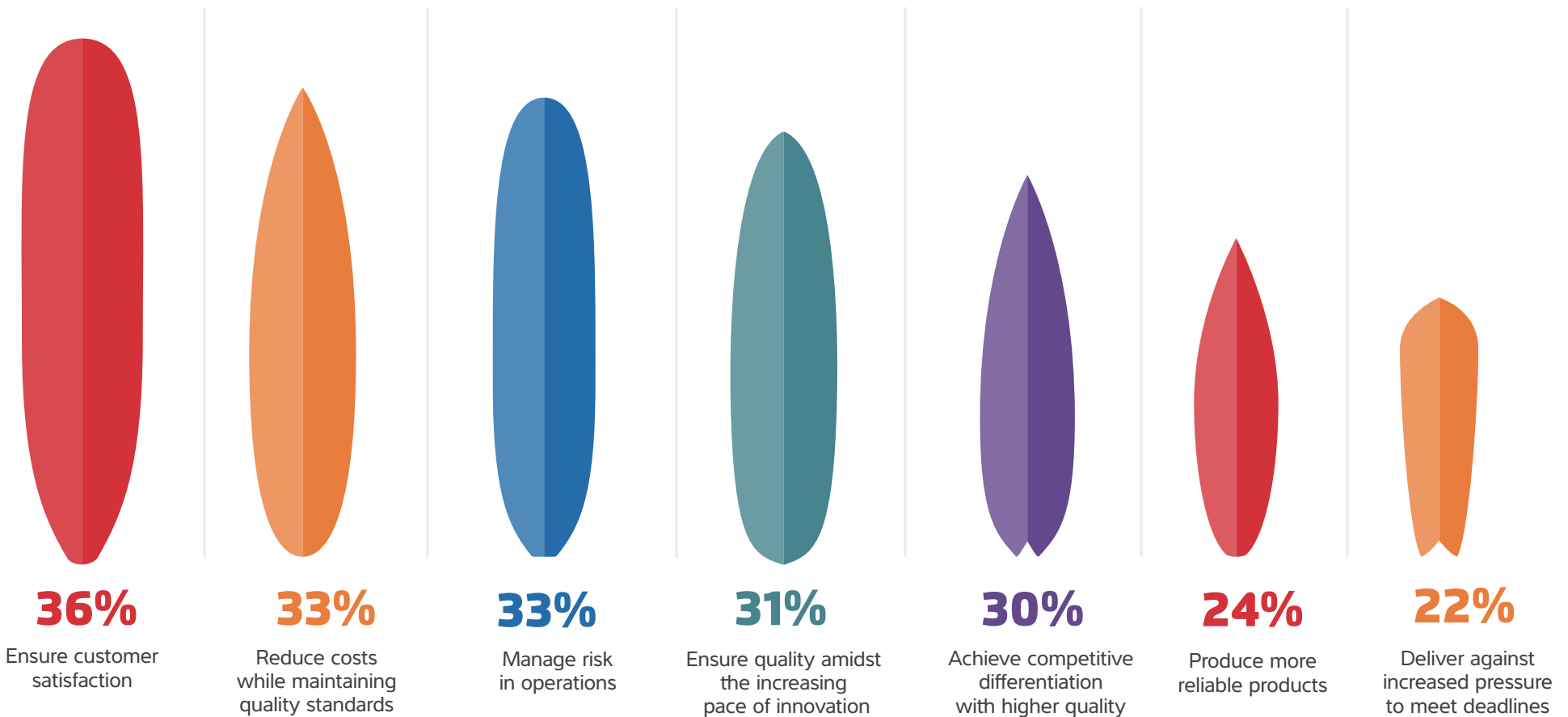
Manufacturers' Present Day Quality Challenges

Upholding quality in a sustainable way can be a challenge, and manufacturers cite it as one of their top pressures². According to a poll taken during an Aegis and Aberdeen Strategy & Research webinar, nearly half of manufacturers polled report they have data silos that stand in the way of quality.



Pressures Driving the Approach to Quality Management

The pressures on today's manufacturers have reached unprecedented heights. From supply chain slowdowns to product shortages to inflation, today's manufacturing landscape is intense and ever-changing. The good news is that manufacturers can utilize this intensity to gain new momentum and progress. According to Aberdeen, manufacturers cite customer satisfaction, cost, and risk as pressures driving their quality improvement efforts³.



*% of respondents rating each pressure as one of their top 3

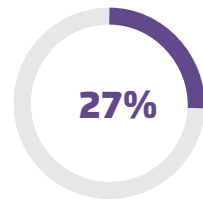
Challenges with Digital Transformation Initiatives in Quality-Related Processes

Nearly every manufacturing organization today strives to be IIoT-ready, but few truly are. Throughout this changing time, manufacturers are facing challenges with the digital transformation of their quality management processes, and they report vast challenges within their digitalization initiatives⁴.



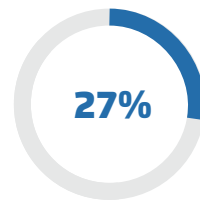
32%

Competing priorities



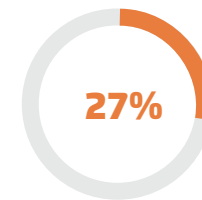
27%

Integration of
disparate systems



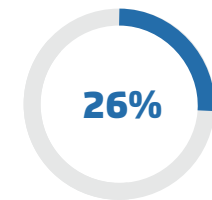
27%

Changes in experiences
for customers



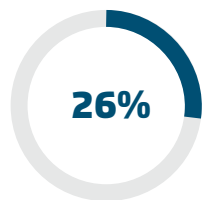
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Limited budget



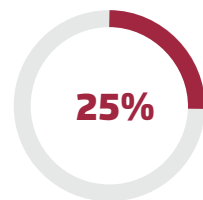
26%

Security concerns



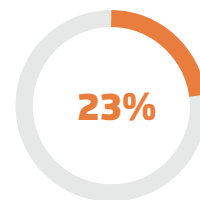
26%

Scalability
and adaptability
for new business
models



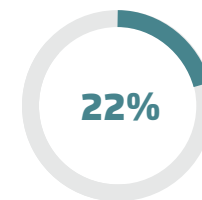
25%

Inability to define,
measure, or support
the positive impact
of changes



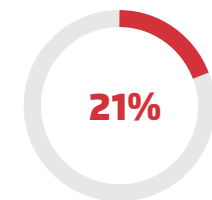
23%

Slow pace
of innovation



22%

Lack of expertise
to lead digital
transformation
initiatives



21%

Rigid or slow legacy
business models

Utilizing the Right Tools to Address Challenges

The right tools and technologies can change the waves of change into an opportunity for exceptional quality, even amid complex processes. Forward-focused organizations recognize this, with more than 60% saying they use quality capabilities built into software like PLM, MOM/MES, and ERP⁵.



24%

Quality management integrated into the Product Lifecycle Management process



20%

Quality management built into holistic manufacturing software (MOM/MES, etc.)



20%

Quality management built into ERP software



12%

Dedicated, standalone QMS software



12%

Spreadsheets/Manual



7%

Home-grown or legacy applications



6%

Multiple disparate applications

Criteria to Consider When Choosing A Quality Management Solution

A proven and reliable quality management solution is the key to enabling quality management across the enterprise. But it's not always easy to choose the right system. Manufacturers today are looking for ease of use, speed, and support when evaluating new quality solutions. According to Aberdeen Strategy & Research, the key criteria for choosing a quality management solution cited by manufacturers include⁶:



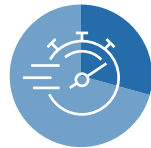
34%

Ease of use



32%

Quality and availability of support



29%

Ease and speed of implementation



28%

Scalability



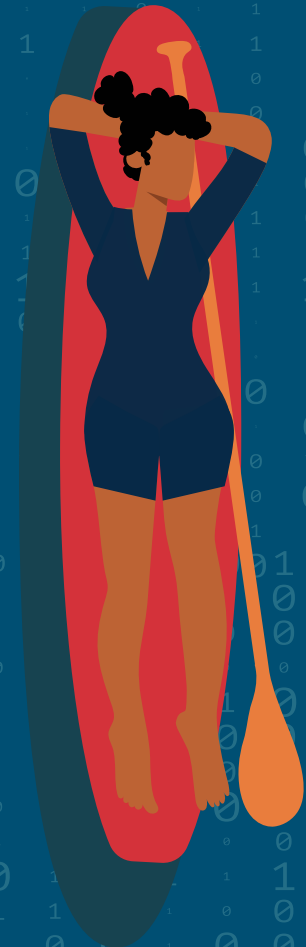
25%

Cloud deployment model (SaaS)



24%

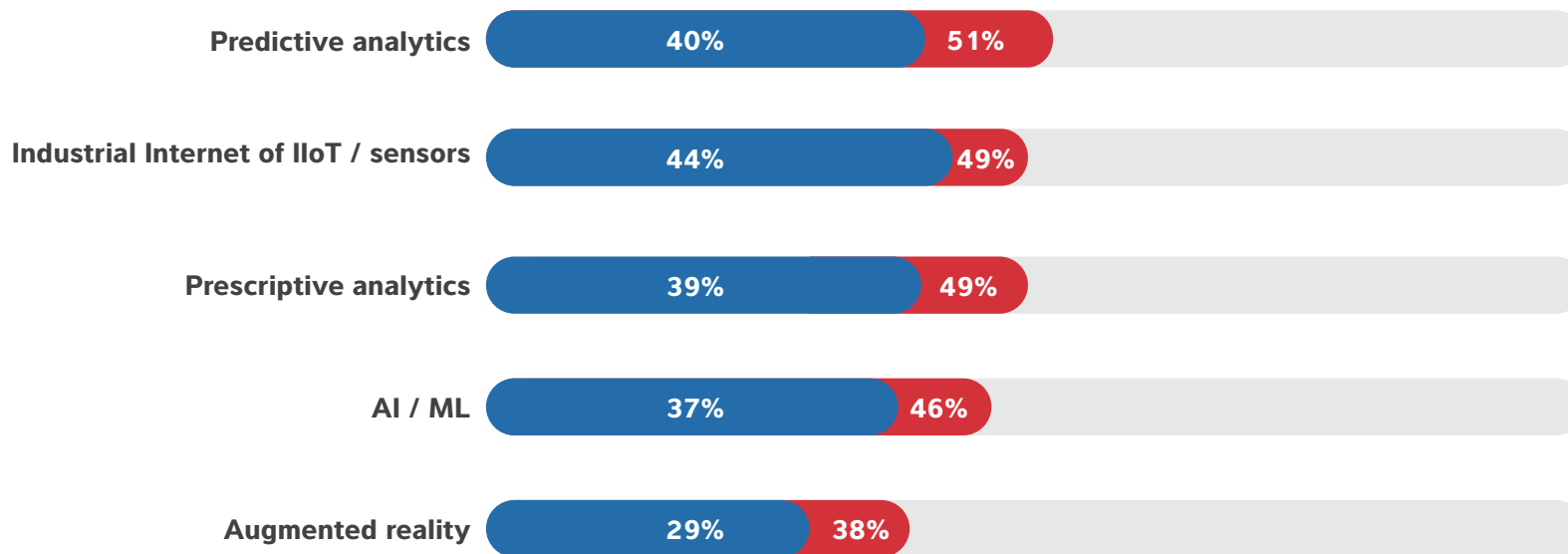
Time to value



⁶% of respondents rating each criteria as one of their top 4

Implementing Technology to Enable Better Quality

Technology plays an essential and significant role in quality management. Best-in-Class manufacturers are always looking to the future, and evolving as they implement new capabilities that allow them to remain flexible and innovative. They report using predictive analytics, IIoT, prescriptive analytics, AI/ML, and augmented reality as tech drivers—with the resulting data enabling them to make better decisions⁷. Comparatively, average organizations are slightly behind with regards to technology initiatives.

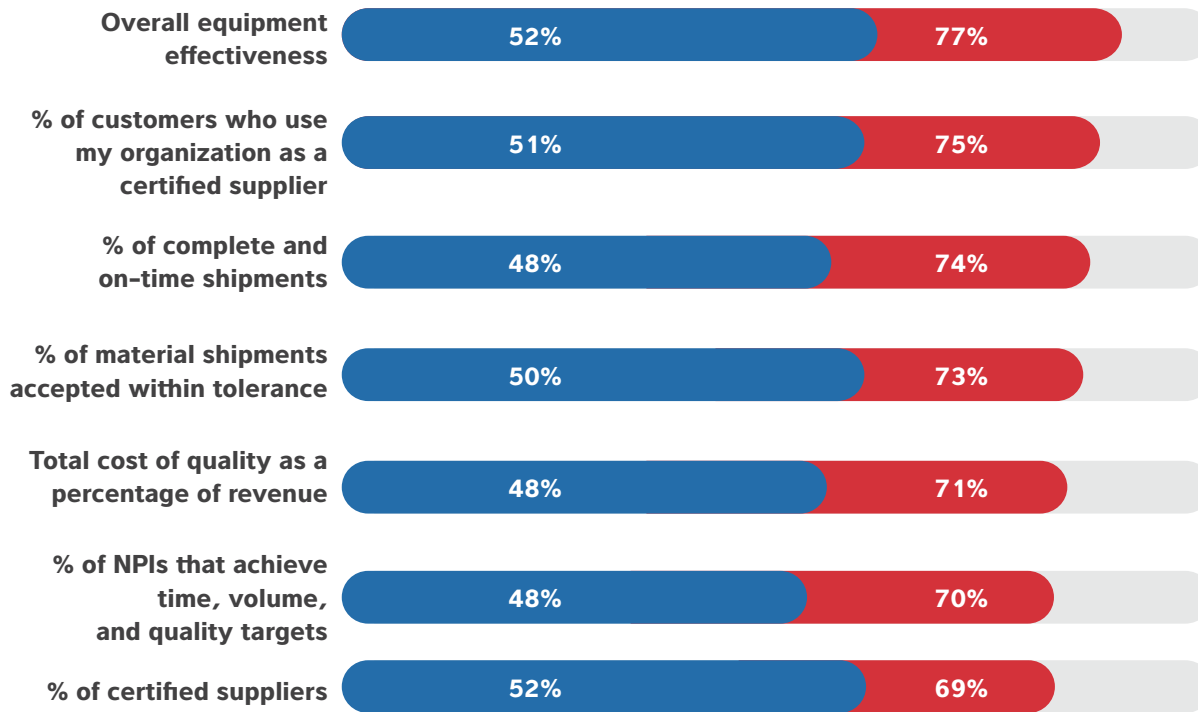


● Best-in-Class
 ● All Others

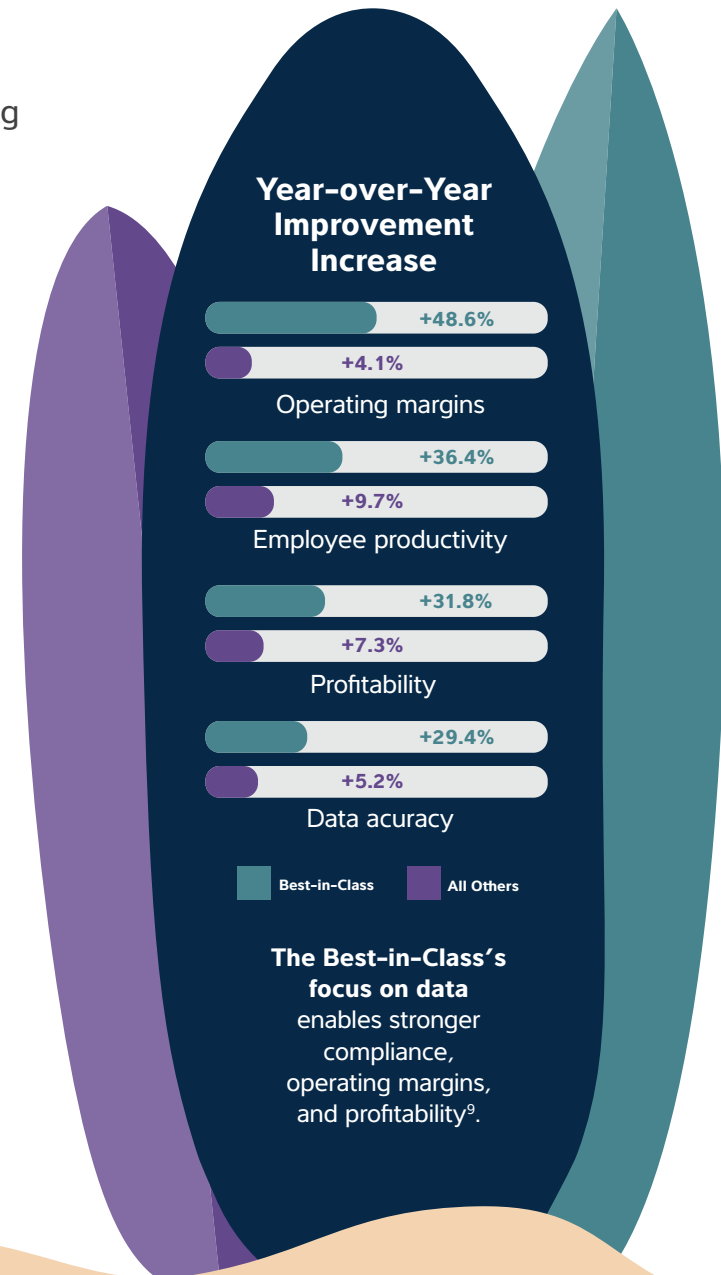
Best-in-Class companies are **58.2% more likely** to use Manufacturing Execution Systems (MES) solutions.

A Greater Focus on Quality Generates Better Key Quality Metrics

Those like the Best-in-Class who focus on implementing technology and data-driven solutions in order to drive quality are seeing results. According to research by Aberdeen, this intense focus on quality will increase productivity, strengthen trust with clients and suppliers, and improve NPI performance⁸.



● Best-in-Class
 ● All Others



Enabling Outstanding Quality with an IIoT-Enabled MES

Aegis' FactoryLogix enables outstanding quality in the face of any challenge. FactoryLogix's unified quality management system helps manufacturers ensure quality from incoming materials through production, testing, and into the business office. It also offers the ability to firewall, identify and repair defects, and automate corrective and preventive actions.

FactoryLogix is an innovative IIoT platform upon which MES operates to seamlessly connect people, processes, systems, and devices—allowing organizations to make smarter decisions faster, and ride the wave of quality all the way to the most optimal outcomes.

Learn more by checking out the webinar.

 **Watch the Webinar**

1, 3, 4, 5, 6, 7, 8, 9. Aberdeen Research, October 2022

2. <https://info.aiscorp.com/leader-or-laggard-whitepaper>



AEGIS
S O F T W A R E