

A background image of an industrial worker wearing a yellow hard hat, safety glasses, and a blue shirt with a high-visibility vest. He is holding a tablet. Overlaid on the image are various digital icons and lines representing data, including a bar chart, a network diagram, a cloud with a padlock, and a folder icon with an upward arrow.

HighByte
IndustryWeek

State of the Market

Industrial DataOps & AI Readiness

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INTELLIGENCE

State of the Market: **Industrial DataOps & AI Readiness**

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Executive Summary

The industrial sector has undergone a striking transformation between 2023 (our first survey) and 2026. What was once an emerging conversation around Industrial DataOps has matured into a strategic imperative, with organizations moving from experimentation to enterprise-scale deployment at a pace few anticipated. In 2023, only 31% of respondents knew what DataOps was. Compare that to the most recent survey, and that number has doubled to 62%. That represents a significant shift in just three years.

A clear perception gap emerges across the findings: **the higher the respondent's job level, the more mature, standardized, and deployment-ready the organization is believed to be.**



Senior executives consistently describe the organization as further along in its data and AI journey, while managers are markedly more cautious in their assessments. This pattern suggests that leaders at different levels may be experiencing the organization's transformation differently, with executives more likely to see strategic progress and enterprise-wide momentum, and managers more likely to encounter the operational realities, inconsistencies, and barriers that can slow adoption on the ground.

The gap is especially pronounced in assessments of data maturity and standardization, where senior executives report much stronger confidence than managers. The same dynamic carries through to DataOps adoption, with executives more likely to describe enterprise-level integration and managers more likely to say their organizations are still in the research phase or not leveraging DataOps at all.

The divergence becomes even sharper in AI, where executives are far more likely to say the organization is fully ready and has already deployed AI across multiple sites, while managers report much lower levels of readiness and implementation. Together, these results indicate that **perceptions of organizational readiness improve substantially with seniority**, underscoring the need to reconcile strategic optimism at the top with frontline experience deeper in the organization.

In addition, Artificial Intelligence (AI) has transitioned from aspirational to operational, but significant barriers remain — chief among them data quality, skilled talent shortages, and the persistent challenge of scaling initiatives across multiple sites.

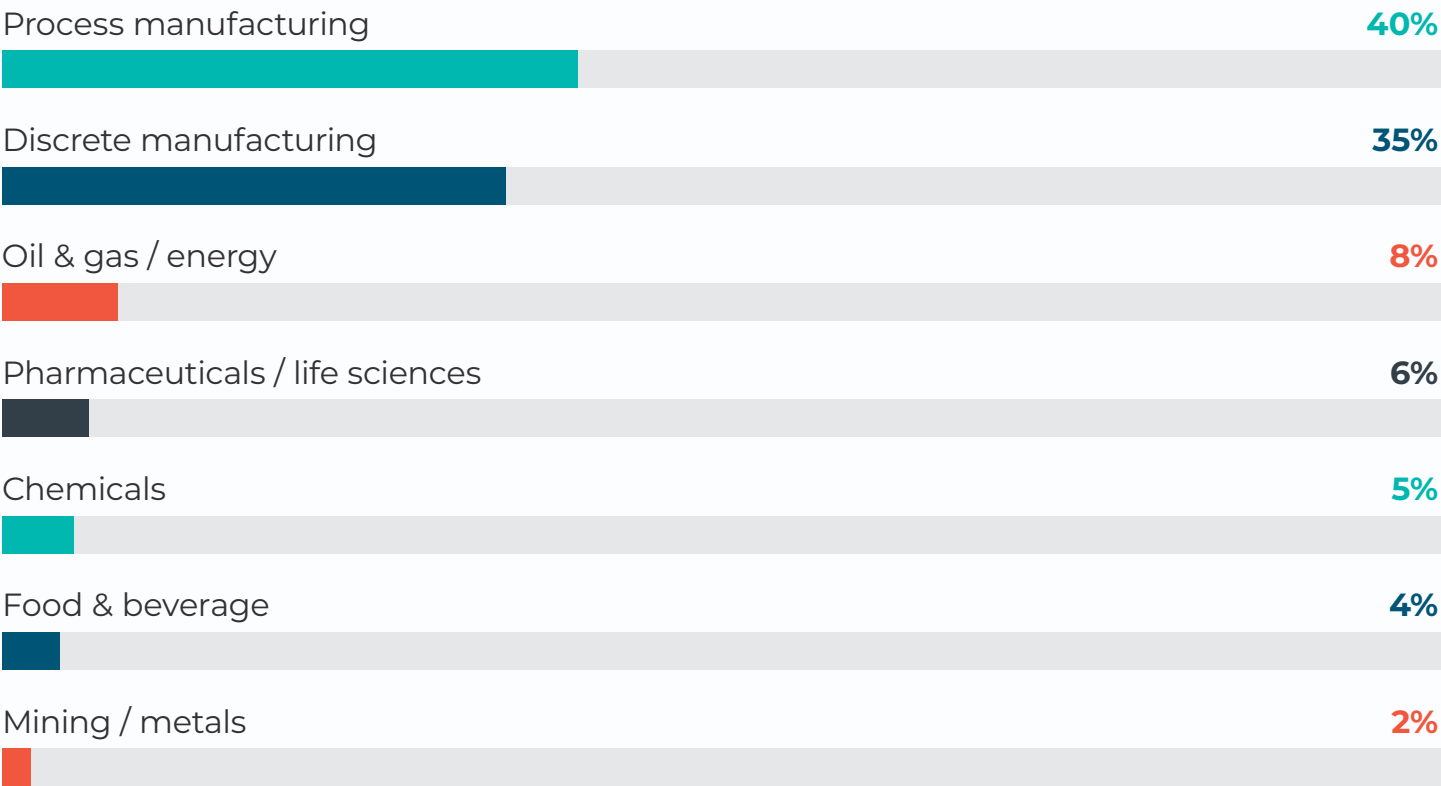
The 2026 survey reveals an industry that is more ambitious, more senior in its engagement, and more confident in its digital trajectory, but still grappling with foundational questions about data governance and cross-functional alignment.

Study Overview and Methodology

The study was designed and executed by Endeavor Business Intelligence on behalf of HighByte, following accepted marketing research standards and methodologies. Data collection occurred from April 2-14, 2026, yielding a total of 156 qualified responses. To enhance trust and participation, survey invitations were branded with a well-known industry media name—IndustryWeek—and respondents were incentivized with a \$30 gift card for completing the survey.

The industries represented in the survey are wide-ranging. The question of industry was not asked in the 2023 survey, but the 2026 survey revealed the following industries represented:

Which industry best represents your organization?



All respondents n=156



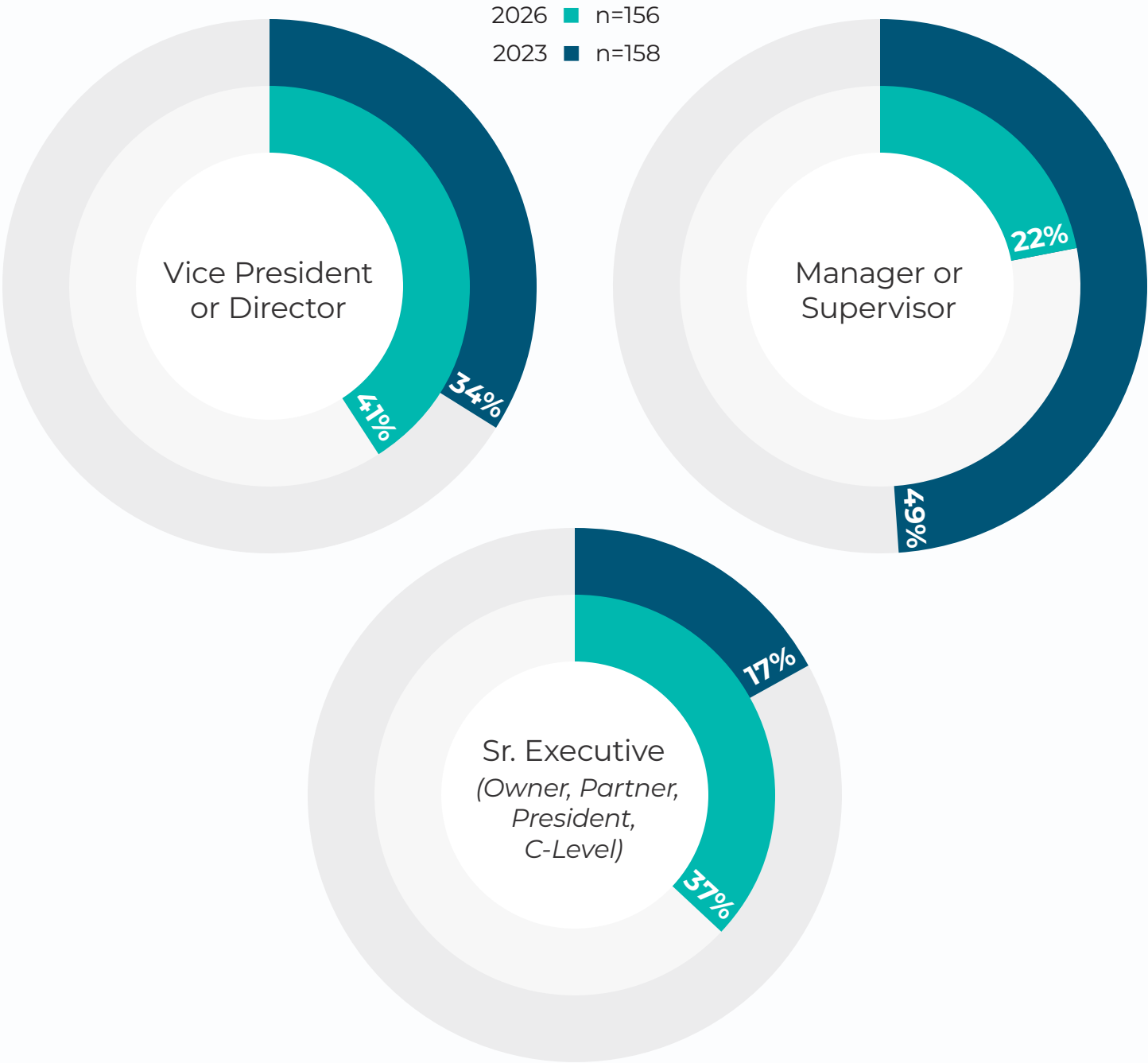
A More Senior, More Technical Respondent Base

The profile of who is driving these responses has shifted dramatically. In 2026, 37% of respondents identify as senior executives (owners, partners, presidents, or C-level), more than double the 17% recorded in 2023. Vice presidents and directors now represent 41% of respondents, up from 34%. Meanwhile, the manager and supervisor segment has dropped sharply from 49% to 22%.

This upward shift in seniority signals that **industrial data strategy has moved from a middle-management operational concern to a boardroom priority**. Equally notable is the surge in IT and technology management respondents, rising from 16% in 2023 to 42% in 2026 — the single largest role segment. Engineering and technical management, by contrast, fell from 25% to just 10%. This rebalancing suggests that industrial data and AI initiatives are increasingly being led by technology-focused executives rather than traditional plant engineers, reflecting the convergence of IT and OT that the industry has long discussed but only recently begun to execute. It’s another sign that technology has fundamentally reshaped how the industry approaches strategic decision-making.

The organizations represented are also skewing larger: 36% now report annual revenue of one billion dollars or more, up from 29% in 2023. The market for Industrial DataOps solutions is clearly being shaped by enterprise-scale buyers with the budgets and complexity to justify significant investment.

Which of the following best describes your job level?



Digital Transformation: From Keeping Pace to Leading

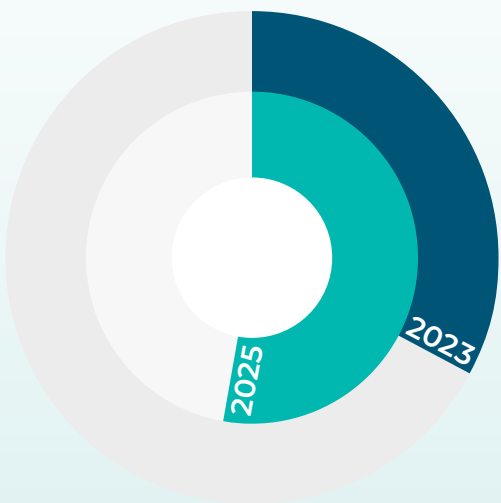
Perhaps the most striking shift in the entire survey is the self-assessment of digital transformation maturity. In 2023, nearly half of respondents (48%) described their organization as merely “in line with their industry or peers.” By 2026, that figure has dropped to 33%. Meanwhile, the combined percentage of respondents who say they are “ahead of their industry” or “ahead of any industry” has surged from 33% to 53%.

This is a remarkable confidence inflection point. **Over half the market now believes it is leading — not following — in digital transformation.** Whether this reflects genuine capability advancement or aspirational self-assessment is worth scrutinizing, but the directional shift is unmistakable: the industry’s center of gravity has moved from cautious adoption to competitive differentiation.

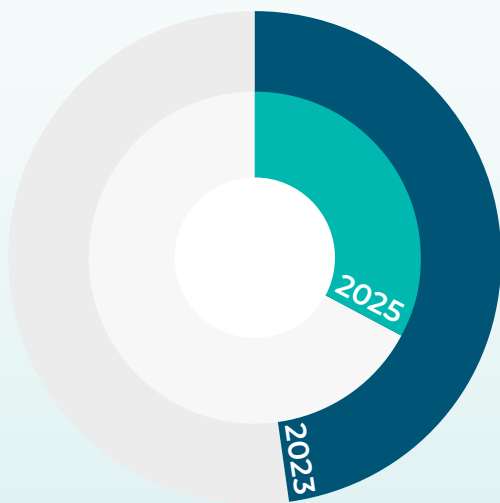
Financial performance tells a more nuanced story. The percentage of organizations performing “in line with projections” dropped from 53% to 42%, while those “sustainably outperforming” rose from 28% to 32%. Notably, those performing below projections but remaining optimistic also showed a slight increase from 11% to 15%. The market appears to be stratifying — top performers are pulling further ahead, while a segment of organizations is underperforming yet betting on digital transformation to close the gap.

Confidence in Digital Transformation Is Rising

53% now say they are ahead of their industry (up from 33% in 2023)



33% now describe themselves as in line with peers (down from 48% in 2023)



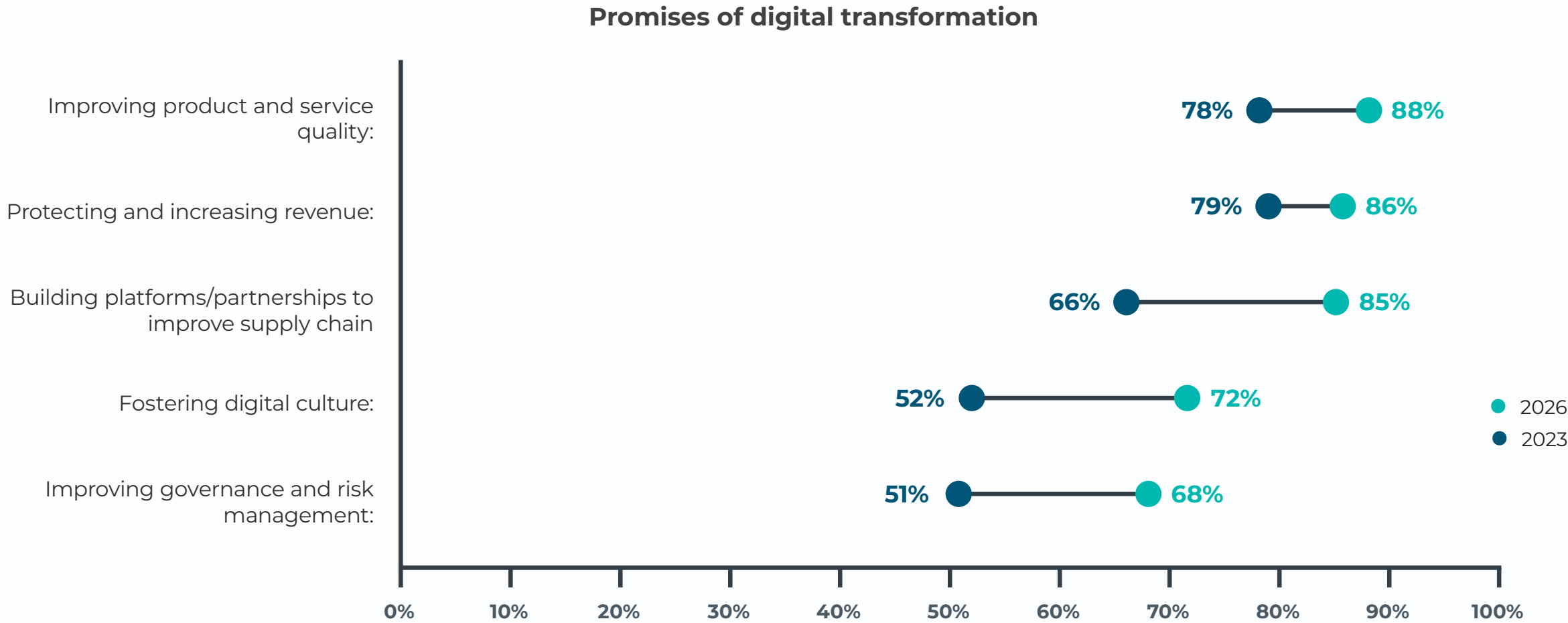
This suggests organizations increasingly view digital transformation as a competitive advantage rather than a catch-up initiative.

The Promises of Digital Transformation Have Never Been Valued More Highly

Every single promise of digital transformation measured in both studies saw its value increase between 2023 and 2026. The top-rated promise — improving product and service quality — rose from 78% to 88%, almost 9 out of 10. Protecting and increasing revenue climbed from 79% to 86%. Building platforms and partnerships to improve the supply chain saw one of the largest jumps, from 66% to 85%.

Several previously lower-ranked promises saw the most dramatic gains. Fostering digital culture jumped 20 percentage points (52% to 72%). Improving governance and risk management rose 17 points (51% to 68%). Fulfilling regulatory compliance requirements and improving talent management both gained 14 points.

These increases suggest the market has **matured beyond viewing digital transformation purely as an operational efficiency play**. Organizations now recognize their strategic role in culture change, governance, workforce development, and regulatory preparedness — domains that were afterthoughts just three years ago.



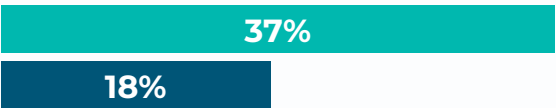
Industrial DataOps: From Niche to Mainstream

Familiarity with Industrial DataOps has undergone a seismic shift. In 2023, only 31% of respondents said they were familiar with the concept (top-two box score). In 2026, that figure has exactly doubled to 62%. The percentage with “no familiarity at all” dropped from 18% to 10%.

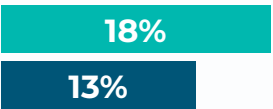
More importantly, organizations are acting on that familiarity. The percentage leveraging DataOps at a strategic or enterprise level across multiple facilities has jumped from 18% to 37% — effectively doubling enterprise adoption in three years. Those with “no plans” to leverage DataOps fell from 18% to just 6%. The middle of the adoption curve — organizations researching or piloting — has also compressed, suggesting a rapid transition from exploration to execution. But managers are most likely to say they are researching use cases or not leveraging DataOps at all (45%, vs. 12% for Senior Executives and 11% for VPs.)

To what degree are you leveraging DataOps within your organization?

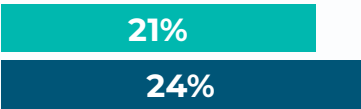
Strategic / enterprise integration across multiple facilities



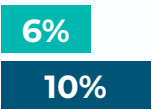
Strategic / systemic integration within one plant



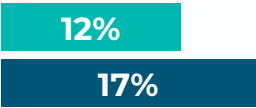
Successful, isolated implementation



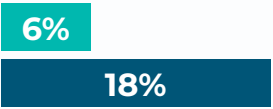
Piloting a test case



Researching use cases



Not at all, with no plans to



2026 ■ n=156
2023 ■ n=158

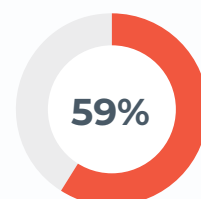
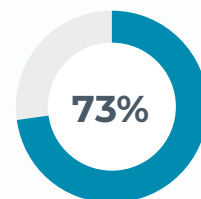
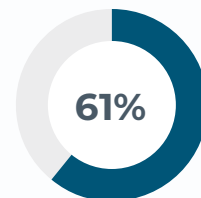
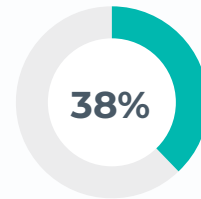
When it comes to the benefits organizations value most, the landscape has evolved. In 2023, the top benefits centered on “making more informed decisions” (30%), “automating processes” (27%), and “ensuring data reliability and consistency” (25%). By 2026, new categories have emerged at the top: “improved operational efficiency” (26%) and “faster analytics and insights” (25%) — neither of which was even measured in 2023. Meanwhile, “enabling AI and ML initiatives” appeared as a new benefit at 17%, reflecting how **DataOps is increasingly viewed as the enabler for AI rather than a standalone discipline.**

The process compliance data reinforces this maturation. In 2026, 43% rate their data collection and integration as “exceptional,” up dramatically from just 15% in 2023. Data analysis jumped from 18% to 38%. Data visualization rose from 14% to 38%. The one notable exception is data governance, where the “exceptional” rating actually dropped from 68% to 31%. This anomaly may reflect growing sophistication — as organizations deepen their data practices, they develop a more honest assessment of governance challenges that once seemed simpler when data environments were less complex.

AI: Operational Reality, Not Just Ambition

The 2026 survey introduced an extensive battery of AI-specific questions not present in 2023, itself a signal of how central AI has become to the industrial conversation. The results paint a picture of an industry that has moved decisively beyond planning — but that picture looks very different depending on where you sit in the organization.

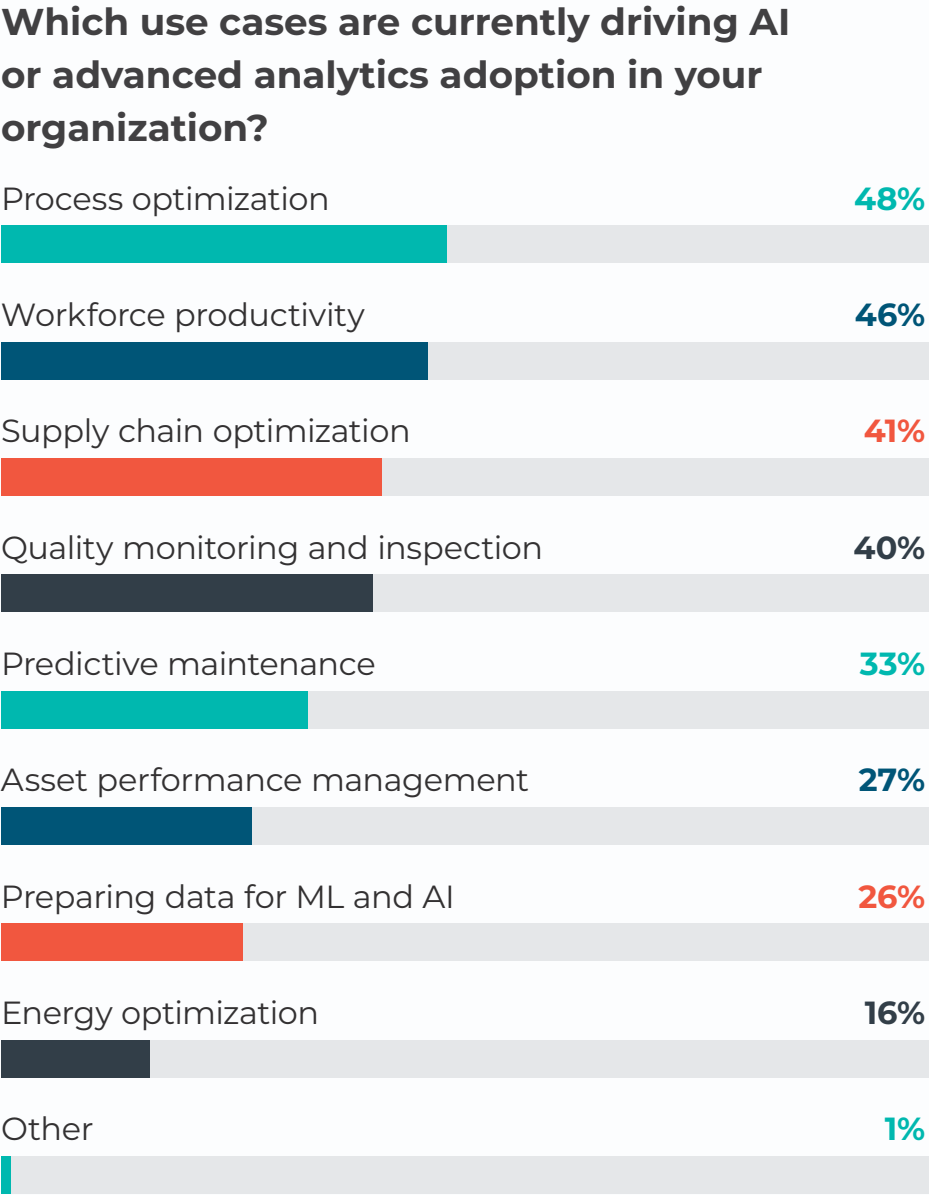
- **38% are deploying AI across multiple sites**, making multi-site deployment the single largest category of AI activity. However, 53% of managers say they're still in the planning or experimental stage versus 10% of executives.
- **61% rate their organization as ready for industrial AI** (top-two box score), with only 4% saying they are “not at all ready.”
- **73% agree that AI success is determined by the maturity of the underlying data foundation**, a near-consensus view that validates the DataOps-first approach.
- **59% say their AI business outcomes are measurable**, suggesting the industry has moved past the “trust us, it will work” phase into accountability.



AI: Operational Reality, Not Just Ambition *(continued)*

However, significant tensions exist. While 43% agree that AI can fix poor or messy industrial data, 21% actively disagree — and this split matters enormously. It reveals a philosophical divide: one camp believes AI can be self-healing, while another insists you cannot shortcut foundational data work. The customer comments overwhelmingly side with the latter view. As one respondent put it bluntly: “You cannot skip the data foundation and go straight to AI.” Another warned: “AI is just a tool, not a solution.” And perhaps most memorably: “Really, it’s garbage in... garbage out.”

The top use cases driving AI adoption are process optimization (48%), workforce productivity (46%), supply chain optimization (41%), and quality monitoring and inspection (40%). These are not experimental applications — they are core operational processes, indicating that AI has penetrated the operational heart of industrial organizations.



Avg. # of responses=2.8

All respondents n=156



Barriers, Governance, and the Scaling Challenge

Despite the progress, scaling remains difficult. **Twenty-nine percent of respondents report that scaling data or AI initiatives across multiple sites is a challenge**, and the barriers driving this difficulty are well documented: data architecture limitations (31%), cultural resistance around IT/OT alignment (32%), and budget constraints (34%).

The top two barriers — security and risk concerns (38%) and lack of skilled personnel (38%) tie for the lead and deserve particular attention. The talent gap is not new, but its persistence at the top of the barrier list, despite three years of market maturation, suggests the industry is growing demand for data and AI skills faster than it can develop or recruit them. Security concerns, meanwhile, reflect the growing surface area of connected industrial systems and the understandable caution of organizations handling critical infrastructure data.

Governance responsibility remains concentrated: 42% place it with IT departments, while 28% assign it to executive leadership. Only 19% describe it as a shared IT/OT responsibility, and a concerning 2% report “no clear ownership.” This concentration of governance in IT, combined with the fact that OT teams are largely absent from governance roles, suggests the cultural bridge between information technology and operational technology remains incomplete.

That said, 63% of respondents rate IT/OT collaboration as effective, and 72% are confident that investments in industrial data maturity will deliver long-term business value. The confidence is there; the execution infrastructure is still catching up.

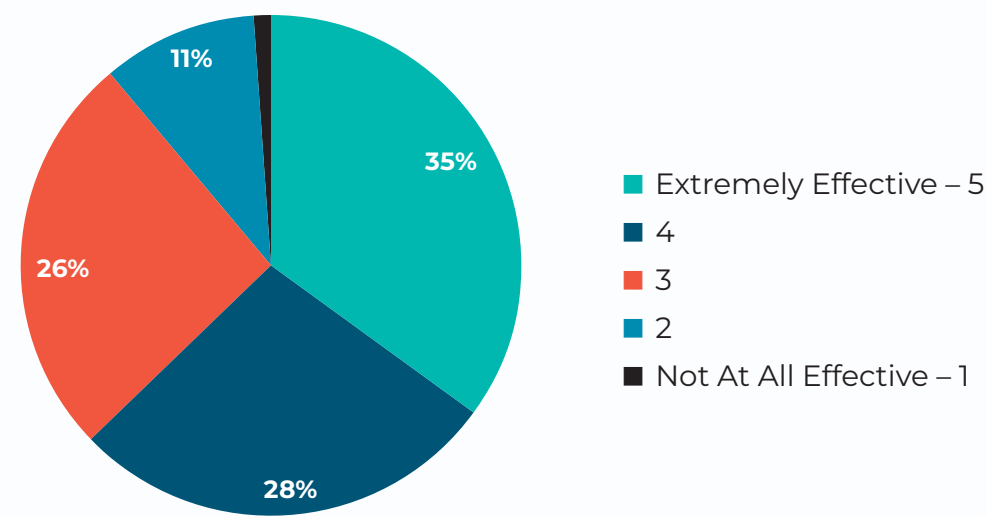


What Customers Are Really Saying

The open-ended responses provide the most authentic window into the market’s state of mind. Several themes emerge with striking clarity:

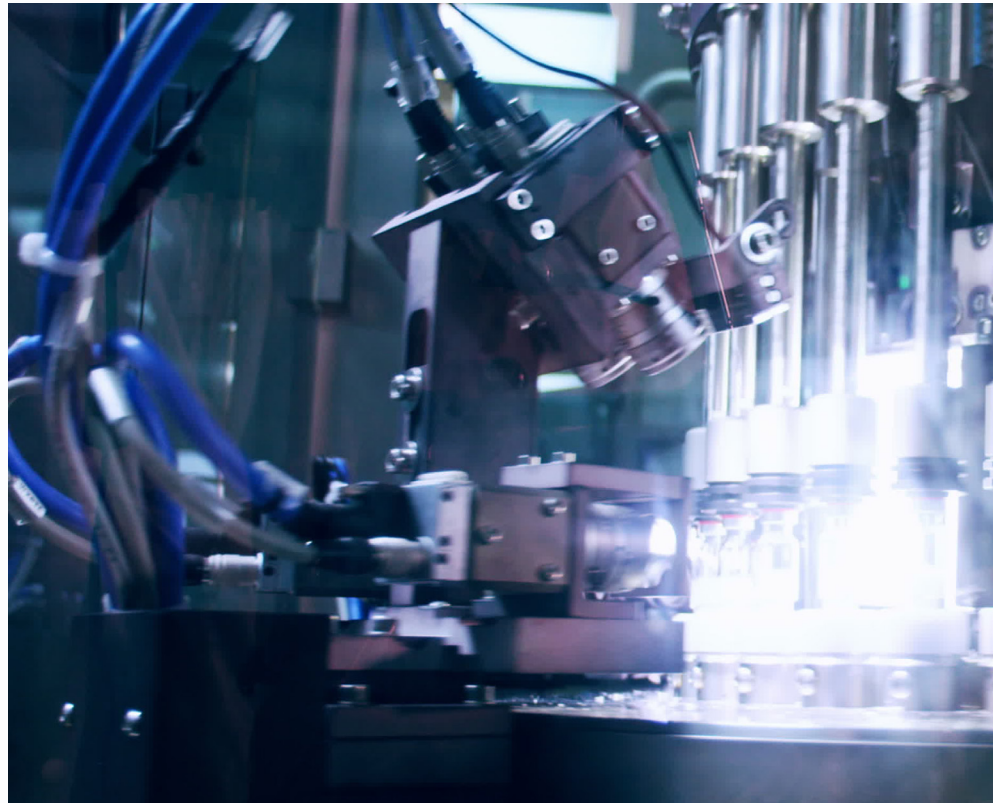
- **Data quality is non-negotiable.** The most frequently cited best practice — by a wide margin — is that data quality, accuracy, and governance are foundational. Respondents are not offering this as theory; they are sharing hard-won lessons. “No matter how much you think you trust the data, you should always be skeptical,” one respondent cautioned. “Once you get comfortable you start to make mistakes.” Another described achieving a measurable 16% productivity increase specifically by using mature, well-governed data to develop and train models — a concrete proof point.
- **Start small, then scale.** The third most common theme is the value of piloting before scaling. “Start small with a controlled pilot to allow for measurable outcome tracking,” advised one respondent. “This is vital to achieve buy-in among stakeholders, as there is much skepticism as to ROI for Industrial DataOps when evaluated alongside more tried and true cap-ex projects.” This pragmatism reflects an industry that has learned from over-ambitious rollouts.
- **Leadership buy-in is essential but fragile.** Multiple respondents emphasized that without executive sponsorship and adequate budget, DataOps initiatives stall. “You have to have the backing of C-level execs as well as talent and an adequate budget,” stated one. Another offered more urgent counsel: “Trust your IT team, get them out of their comfort zone, and go big or get washed out. Scary but better late than too late.”
- **The IT/OT divide persists.** Cross-functional alignment between IT, OT, and business stakeholders is repeatedly cited as both critical and difficult. Several respondents specifically called out the need to involve OT domain experts early and to bridge fragmented data environments. One respondent’s production facilities “generate a lot of throughput data that our OT team is unable to process. We are continuing to make decisions postmortem.” This is the operational cost of the IT/OT gap laid bare.

How effective is collaboration between IT and OT in your organization?



All respondents n=156

Conclusion



DataOps has moved from buzzword to business strategy. AI has moved from pilot to production.



The 2026 State of the Market survey reveals an industrial sector that has crossed a meaningful threshold. **DataOps has moved from buzzword to business strategy. AI has moved from pilot to production.** And the executives driving these programs are more senior, more technically literate, and more confident than three years ago. But it is worth noting that the 2026 sample has significantly more executives than 2023. Some of that confidence jump may reflect who answered, not just what changed.

But the data also reveals an industry at risk of outrunning its foundations. The dramatic rise in self-assessed digital maturity, combined with persistent challenges in data governance, talent acquisition, and cross-site scaling, creates a gap between ambition and execution. The customers who contributed open-ended responses understand this tension intuitively — their most common advice is not about adopting the latest technology, but about getting the basics right first.

The organizations that will lead over the next three years will not be those that deploy the most AI models. They will be the ones that invest in clean, standardized, well-governed data foundations; bridge the IT/OT divide with shared accountability; and resist the temptation to scale before they have proven value at a single site. The market has spoken clearly: the future belongs to those who build before they build fast.