Fivetran

Research by Redpoint

Nearly 50% of enterprises say their AI ambitions are falling short

What 400+ data leaders reveal about the barriers to AI success

Enterprises have poured billions into data centralization, yet AI execution remains an uphill battle.

Despite bold AI roadmaps and massive investments, many organizations are hitting roadblocks — delays, underperformance, and outright failures in AI initiatives. Even companies with well-defined centralization strategies struggle to move beyond pilot mode as integration challenges, resource constraints, and operational inefficiencies stall progress.

What's going wrong? The issue isn't a lack of vision — it's the gap between strategy and execution. As Joe Peppard, Academic Director at UCD Smurfit Executive Development and former MIT Sloan faculty member, recently noted in The Wall Street Journal:

> *Poor data quality — incomplete, biased, or unstructured — affects AI performance in the same way it can have an impact on any other technology. If you don't have good data, you can have great strategic intent, but you won't be able to execute it."*

In short, AI can't deliver results if data isn't fully centralized, governed, and ready for action.

This report, based on a survey of 401 data professionals across the US, UK, EMEA, and APAC, uncovers the hidden challenges preventing AI from reaching its full potential. It explores the key obstacles standing in the way of AI success and the critical steps enterprises must take to move from strategy to execution.

Key findings: why AI ambitions are falling short

AI should be driving business outcomes, but execution failures are stalling progress. Here are five critical insights from our survey that reveal why AI isn't delivering.

1. AI plans look good on paper — but fail in practice

- While a majority of enterprises (57%) say their data centralization strategy is "very effective," nearly half (42%) admit that over half of their AI projects either fail or underperform.

2. Integration is the #1 AI roadblock

- More than a third of enterprises (over 33%) identify data integration challenges as the top reason their AI initiatives fall short.

3. AI delays are draining revenue

- Most companies (68%) with less than half of their data centralized report lost revenue opportunities due to delays, failures, or underperforming AI efforts.

4. Data teams are stuck in maintenance mode

- Even among enterprises that have centralized more than half of their data, the majority (67%) are still using over 80% of their data engineering resources just to maintain pipelines — leaving limited bandwidth for advancing AI.

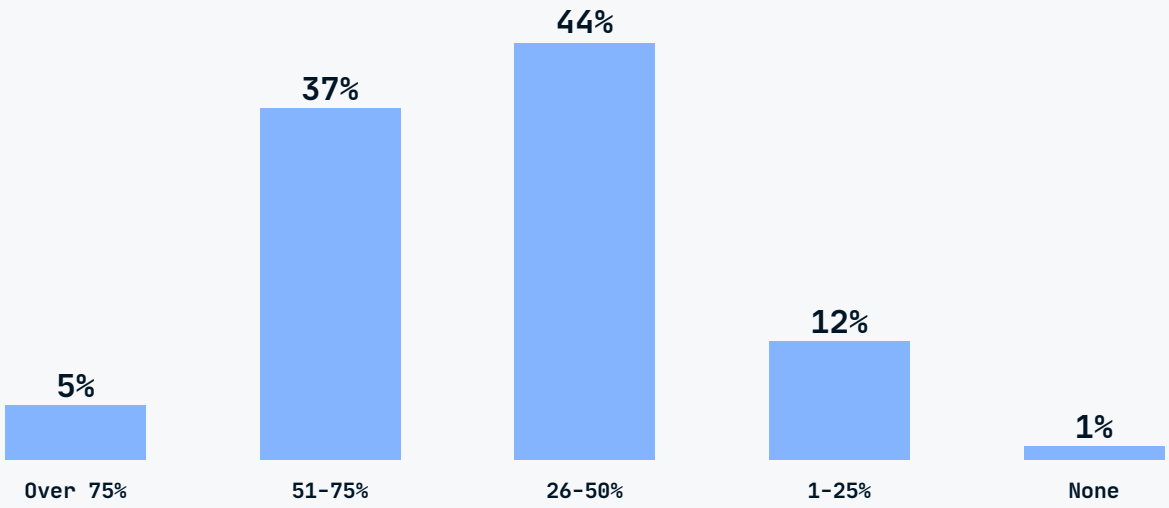
5. AI readiness starts with centralized data — but execution matters

- Nearly six in ten enterprises (59%) say regulatory compliance is their biggest challenge in managing data for AI, showing that while centralization is a critical first step, it's not enough on its own.

Why AI projects are stalling or failing

AI is positioned as a breakthrough for enterprises, promising automation, efficiency, and business growth. Yet many organizations find themselves stuck in pilot mode — with AI projects delayed, underperforming, or failing outright. Our research shows that **nearly half of enterprises (42%) report more than half of their AI initiatives have faced delays, underperformed, or failed** — primarily due to challenges with data readiness.

Based on your best guess, what percentage of your organization's AI projects have been delayed, underperformed, or failed due to data readiness issues?



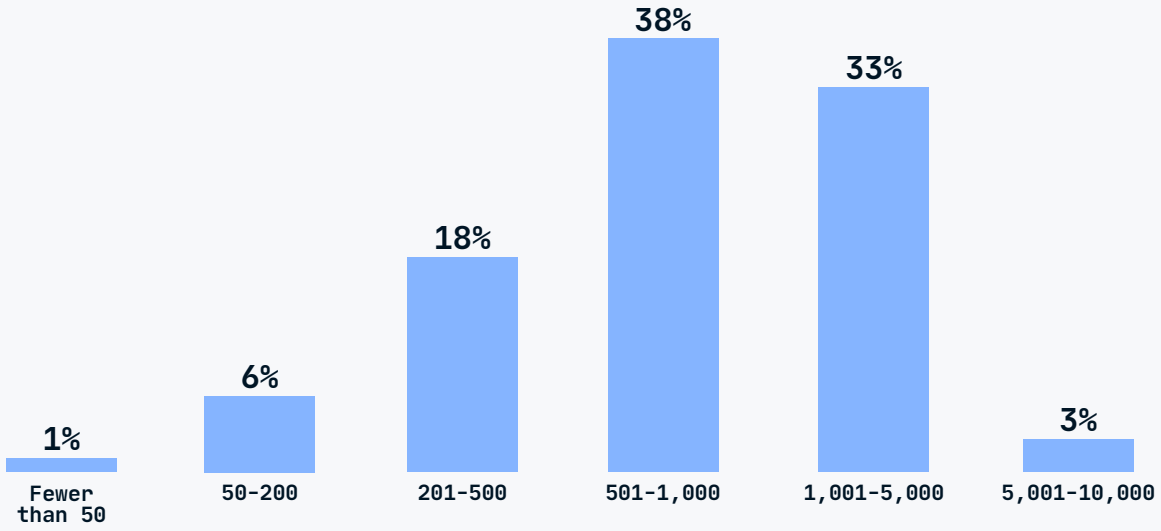
The problem isn't a lack of AI vision — it's the ability to execute effectively. In another study conducted by Fivetran and MIT, 82% of C-suite and senior executives indicated that scaling AI or generative AI use cases to create business value was a top priority. Yet, nearly half (45%) cited data integration and pipeline challenges as their biggest obstacle to achieving AI readiness.

Without a streamlined, operationalized data foundation, AI projects stall, costs rise, and business outcomes go unrealized.

Major execution roadblocks

One of the biggest barriers to AI success is integration complexity. **Nearly three-quarters of enterprises manage or plan to manage more than 500 data sources**, making it increasingly difficult to unify and operationalize data for AI. In Fivetran's study with MIT, **77% of respondents said data integration or movement is a significant challenge for their organization**. Without seamless integration, AI initiatives face delays, inefficiencies, and unreliable insights.

How many data sources does your organization currently use or plan to use for BI and analytics systems?



Pipeline maintenance is another major barrier. Instead of focusing on AI innovation, data teams are stretched thin, dedicating the bulk of their resources to infrastructure upkeep. Sixty-five percent of enterprises say they spend over 40% of their data engineering resources maintaining pipelines.

Even centralizing data isn't enough without automation: 67% of enterprises with more than half their data centralized still spend over 80% of their resources on maintenance. As maintenance demands grow, organizations struggle to free up capacity for higher-value AI initiatives — slowing progress and reducing impact.

Centralization alone can't fix the pipeline problem

- The majority of enterprises (65%) spend over 40% of their data engineering resources on pipeline maintenance.
- Even with centralized data, the burden persists — 67% of organizations with more than half their data centralized still dedicate 80% or more of their resources to keeping pipelines running, highlighting the need for automation, not just centralization.

Data readiness gaps prevent AI from generating real value

Beyond integration and maintenance challenges, poor data quality and governance issues undermine AI effectiveness:

- **Regulatory compliance (59%)** is the biggest challenge organizations face in managing data for AI.
- **Stale (52%) and inaccurate (52%) data** prevent AI models from delivering reliable insights.
- **Real-time data access limitations (41%)** keep AI from generating timely, actionable outcomes.

Until these execution barriers are addressed, enterprises will continue struggling to move AI from potential to performance.

The AI readiness divide: Which industries and regions are leading?

While every enterprise aspires to harness AI's full potential, not all are equally prepared to execute. Readiness levels vary significantly by industry and region, creating a widening gap between AI leaders and laggards. Organizations that fail to operationalize AI will struggle to turn strategy into real impact, while those with strong data foundations and execution capabilities are already scaling AI-driven transformation.

To quantify these disparities, we developed the **AI Readiness Maturity Model**, which evaluates industries and regions based on four execution-critical factors:

- Effectiveness of data management and integration
- Percentage of data that is AI-ready
- AI project success/failure rate
- Resource allocation to pipeline maintenance

Industry-specific AI readiness rankings

Industry	AI Readiness Score
Healthcare	8.2
Retail	8
Technology	7
Finance	6
Manufacturing	5.8

Healthcare and Retail lead in AI readiness due to strong automation and data integration strategies. These industries have successfully modernized their data infrastructure, allowing for more scalable AI execution.

Finance and Manufacturing, however, struggle the most, largely due to integration bottlenecks, high pipeline maintenance burdens, and legacy systems that are difficult to migrate. While financial institutions deal with strict regulatory constraints, manufacturing firms often operate on fragmented, outdated data architectures that slow AI adoption.

Technology sits in the middle, with high AI ambitions but challenges in scaling AI initiatives efficiently. Many companies in this sector have invested heavily in AI pilots but still face hurdles in optimizing and operationalizing AI at scale.

Regional AI readiness disparities

Region	AI Readiness Score
APAC	8.8
USA	8.2
EMEA	8
UK	6

APAC (8.8) leads globally in AI readiness, driven by strong investments in automation, integration, and cloud-based AI infrastructures. Many enterprises in this region have prioritized AI execution alongside strategy, allowing them to scale more effectively.

The USA (8.2) follows closely but is burdened by high pipeline maintenance costs and integration challenges that slow AI progress. While many enterprises have centralized their data, operational inefficiencies continue to pose obstacles to AI execution.

EMEA (8.0) ranks in the middle, balancing regulatory constraints with execution challenges. While European companies have made strides in data governance, strict compliance requirements and complex data landscapes make AI scalability more difficult.

The UK (6.0) lags behind, struggling with weak data integration strategies and higher AI project failure rates. Many organizations in this region are still working to modernize their data ecosystems, which has delayed AI adoption and impact.

These findings underscore the reality that AI execution is not just an industry challenge — it's also a regional one. Organizations operating in less mature AI markets must prioritize automation, modern data integration, and governance to remain competitive in the AI-driven future.

The business cost of poor AI execution

AI is no longer an experimental technology — it's a critical driver of efficiency, revenue, and customer engagement. However, when AI initiatives fail due to execution challenges, the consequences extend far beyond IT. Poor data readiness and AI inefficiencies impact business growth, operational costs, and customer satisfaction, preventing enterprises from realizing AI's full potential.

Revenue loss: AI failures are costing enterprises real money

AI is meant to enhance decision-making, optimize processes, and unlock new revenue streams, but execution challenges prevent companies from fully capitalizing on these benefits. When AI initiatives stall, businesses miss critical opportunities to improve efficiency and drive sales.

Without reliable AI insights, companies struggle to identify market trends, optimize pricing strategies, and deliver AI-powered recommendations that increase conversions and retention. In fact, enterprises we surveyed indicated that AI failures result in significant financial losses:

- **68% of enterprises with less than 50% centralized data** report lost revenue opportunities due to AI project delays or failures.
- **6% of annual revenue is lost when AI models are built on low-quality data,** according to a study Fivetran conducted with Vanson Bourne.

Rising operational costs and inefficiencies

AI inefficiencies don't just slow innovation — they increase costs. Instead of streamlining operations and automating workflows, many organizations find themselves spending more on infrastructure, maintenance, and troubleshooting failed AI models.

38% of enterprises cite increased operational costs due to AI project failures

Rather than enabling AI-driven efficiencies, many enterprises are diverting valuable resources to infrastructure maintenance, leaving less room for innovation and strategic growth.

Customer experience takes a hit

Reduced customer satisfaction and retention was the #1 consequence of AI delays, failures, or underperformance caused by data readiness issues.

When AI fails due to poor data quality, integration issues, or outdated models, customer satisfaction also suffers. Businesses that rely on AI-driven personalization and automation — especially in industries like retail, finance, and healthcare — risk eroding trust, reducing conversions, and damaging long-term brand loyalty.

How AI failures impact customer experience:

- **Slow or inaccurate recommendations** damage trust and reduce conversion rates.
- **Delays in AI-powered automation** create friction in customer service and support.
- **Fragmented customer data** leads to inconsistent experiences across channels.

Companies that fail to operationalize AI effectively will not only lose efficiency and revenue, but also risk alienating customers in an increasingly AI-driven marketplace.

#1 impact of AI failure: Reduced customer satisfaction and retention

How enterprises can achieve greater AI success

AI initiatives aren't failing because organizations lack data — they're failing because they **can't efficiently prepare, integrate, and operationalize that data.** Without the right infrastructure and processes, AI projects stall, consuming resources without delivering business impact.

To unlock AI's full potential, enterprises must move away from **manual data maintenance to automation,** freeing up teams to focus on AI-driven innovation rather than infrastructure upkeep.

Centralization is the foundation — data readiness unlocks AI's full potential

Centralizing data is a crucial starting point for AI success, but it's only the beginning. **While the majority of enterprises (57%) rate their centralization strategy as "very effective," nearly half (42%) still say more than half of their AI projects fail or underperform.** Even when data is centralized, issues with quality and structure continue to hold back performance. Without clean, AI-ready data, models are fed inconsistent inputs — resulting in inaccurate predictions and unreliable insights.

57% of enterprises rate their centralization strategy as "very effective," 42% still report that more than half of their AI projects fail or underperform

To fully unlock AI's potential, enterprises must go beyond centralization and invest in:

- **Automated data preparation** to ensure AI models receive clean, structured inputs.
- **Validation, cleaning, and standardization tools** to improve data quality before it's fed into AI systems.
- **Ongoing monitoring** to keep AI models trained on accurate, up-to-date information.

How HubSpot improved AI outcomes with data readiness

HubSpot needed accurate hiring and workforce data to optimize forecasting but relied on manual spreadsheet ingestion, making the process inefficient and prone to errors. Without a streamlined way to clean and standardize data, AI models struggled to deliver reliable predictions.

To solve this, HubSpot implemented automated pipelines to process and standardize data efficiently, eliminating the need for manual intervention and improving data quality.

The impact:

- **Reduced pipeline development time from six weeks to under an hour,** accelerating AI adoption
- **Saved $100,000 in data engineering costs,** freeing resources for higher-value initiatives
- **Improved predictive accuracy by 90%,** enabling better workforce planning and decision-making

Shift from manual pipeline maintenance to automation

Many enterprises are **spending too much time maintaining pipelines instead of driving AI innovation.** Instead of advancing AI capabilities, data teams are burdened with troubleshooting, updates, and maintenance tasks that slow progress and increase costs.

67% of enterprises with over 50% of their data centralized still allocate over 80% of their data engineering resources to maintaining pipelines

To overcome these challenges, enterprises must adopt modern solutions that streamline data management:

- **Automated data integration tools** that reduce the need for manual intervention
- **Lower operational workload** so teams can focus on AI-driven insights instead of infrastructure upkeep
- **An AI-ready infrastructure** that prioritizes automation, lowering long-term costs and improving scalability

How Banxware reduced costs and improved AI execution

Banxware, a German fintech company, struggled with manual data pipeline maintenance, which delayed real-time insights and slowed decision-making. Data teams were spending significant time managing infrastructure rather than focusing on AI-driven innovation.

To address these challenges, Banxware implemented automated data integration, reducing operational overhead and ensuring faster, more reliable access to critical business data. By automating its pipelines, the company eliminated inefficiencies that had been holding back AI execution.

The impact:

- **Saved €140,000 per year** — the equivalent of two full-time engineers.
- **Improved decision-making** while ensuring compliance with banking and security regulations.

Fix the integration bottleneck

AI initiatives require data from multiple systems, but many enterprises struggle to integrate their expanding data ecosystems, especially when enterprises are managing hundreds of data sources.

¾ of enterprises manage 500+ data sources

As organizations scale, the complexity of managing diverse data sources increases, making integration one of the biggest roadblocks to AI success. In fact, 64% of companies rank data integration tools as their top investment priority for AI — well ahead of data lakes (35%) and data transformation tools (31%), according to Fivetran and MIT research.

65% of companies rank data integration tools as their top investment priority for AI

To overcome integration challenges, enterprises must invest in solutions that:

- **Unify fragmented data sources** with low-code or automated integration tools
- **Streamline workflows** to reduce the engineering burden and accelerate AI adoption
- **Scale with business needs,** ensuring integration infrastructure can support future AI demands

How Trinny London streamlined data integration and improved AI performance

TRINNY LONDON

Trinny London, a fast-growing beauty brand, needed to streamline marketing and sales data across multiple channels but faced persistent integration bottlenecks. Disconnected systems made it difficult to unify customer insights, optimize marketing campaigns, and scale AI-driven analytics.

To resolve these challenges, the company implemented automated data pipelines, significantly reducing reliance on manual processes and improving data consistency across platforms.

The impact:

- **Saved £260,000 annually** — the equivalent of an entire data engineering team.
- **Enabled self-service analytics** for over 50% of employees, empowering teams to make data-driven decisions.
- **Optimized marketing campaign performance,** improving targeting and customer engagement.

Break down data silos for a unified AI view

AI models are only as good as the data they're trained on — yet **one-third of enterprises say data silos are blocking AI success.** When departments don't share data effectively, AI models generate incomplete, biased, or inaccurate outputs, leading to poor decision-making and missed opportunities. Without a unified data ecosystem, AI struggles to deliver meaningful insights across the organization.

⅓ of enterprises say data silos are blocking AI success

To maximize AI's potential, enterprises must:

- **Eliminate departmental data silos** to ensure AI models have access to the full picture
- **Create integrated, up-to-date data ecosystems** that provide real-time insights
- **Enable seamless cross-functional collaboration** between teams handling AI initiatives

How Databricks unified data for AI-driven insights

Databricks' marketing team struggled with siloed data and unreliable reporting, making it difficult to generate accurate analytics and AI-driven insights. Fragmented data sources led to inconsistencies, forcing teams to spend excessive time on manual reconciliation rather than strategic AI initiatives.

To resolve these issues, Databricks centralized its data in a modern lakehouse with automated pipelines, ensuring teams had access to accurate, real-time insights.

The impact:

- **Cut 40+ hours of engineering time per month,** freeing up resources for AI-driven innovation
- **Improved data trust across teams,** increasing confidence in analytics and decision-making
- **Shifted focus from data maintenance to AI-driven insights,** allowing teams to leverage AI more effectively

Align leadership on execution — not just vision

Too many organizations focus on crafting ambitious AI strategies but fall short when it comes to execution. Leadership teams often invest in data centralization and AI planning yet fail to prioritize the operationalization needed to turn these strategies into real business impact. Without a clear focus on execution, AI initiatives stall, resources are misallocated, and enterprises struggle to realize AI's full potential.

To bridge the gap between strategy and execution, leadership must:

- **Champion execution, not just planning,** ensuring AI strategies move beyond roadmaps into real-world application.
- **Invest in automation and AI-driven efficiencies,** shifting focus from infrastructure alone to operational improvements that drive results.
- **Enable cross-functional collaboration,** ensuring alignment between data teams, business units, and AI stakeholders to turn AI ambitions into measurable success.

AI success isn't just about having a vision — it requires leadership buy-in at every stage of execution. Organizations that prioritize automation, streamline workflows, and break down silos will be the ones that translate AI potential into tangible business impact.

How Seer Interactive turned leadership vision into AI execution

seer interactive

Seer Interactive's leadership recognized the value of AI-driven insights but struggled with execution. Account managers spent hundreds of hours manually collecting and analyzing marketing data, leading to inefficiencies and costly errors. Despite having a strategy, the company needed leadership buy-in to prioritize automation and execution.

With support from leadership, Seer created an Innovation Team to centralize data and automate reporting.

The impact:

- **Saved 720+ hours annually** by eliminating manual data collection
- **Built an automated data pipeline,** enabling faster insights
- **Optimized ad spend,** preventing costly budget misallocations

AI success isn't just an IT challenge — it's a business imperative

AI execution failures aren't just technical issues — they are a direct threat to business growth, profitability, and customer retention. Enterprises that fail to address AI inefficiencies risk falling behind as competitors leverage AI to drive innovation, efficiency, and customer engagement.

Organizations that don't operationalize AI effectively will:

- **Lose ground to competitors** that execute AI successfully.
- **Overspend on infrastructure** without achieving measurable AI-driven returns.
- **Miss out on AI's full potentia**l to optimize revenue, streamline operations, and enhance customer experience.

AI success requires more than just a strategy — it demands execution. Enterprises that prioritize automation, integration, and data readiness will be the ones that transform AI ambitions into real business impact.

Methodology & Demographics

This report is based on a survey of 401 data professionals across the United States, United Kingdom, EMEA, and APAC, conducted in Q1 2025. The research aimed to uncover the biggest challenges enterprises face in AI execution, including data readiness, integration, and operationalization.

Respondents represent a diverse mix of industries, company sizes, and job roles. The largest industry segments included technology (28%), finance (22%), healthcare (18%), retail (15%), and manufacturing (10%), with the remaining 7% spanning various enterprise sectors. Participants came from organizations of all sizes, with 35% from mid-sized enterprises (500–4,999 employees) and 65% from large enterprises (5,000+ employees). In terms of job roles, 42% identified as data engineers or architects, 30% as AI/ML specialists or data scientists, and 28% as senior IT and data leaders, including CIOs and CTOs.

The survey was conducted via an online questionnaire featuring a mix of multiple-choice, ranking, and open-ended questions. Respondents were screened to ensure they play an active role in AI and data decision-making within their organizations. Data was analyzed to identify key trends, execution challenges, and AI readiness levels across industries and regions.

About Fivetran

Fivetran, the global leader in data movement, is trusted by companies like OpenAI, LVMH, Pfizer, Verizon, and Spotify to centralize data from SaaS applications, databases, files, and other sources into cloud destinations, including data lakes. With high-performance pipelines, seamless interoperability, and enterprise-grade security, Fivetran empowers organizations to modernize their data infrastructure, power analytics and AI, ensure compliance, and achieve transformative business outcomes. Learn more at Fivetran.com.