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INSIGHTS

2025 and beyond: How a strong data foundation fuels enterprise success and AI-driven innovation

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Introduction

As architects of data-driven innovation, C-suite technology leaders must urgently shape strategies that power enterprise information and intelligence.

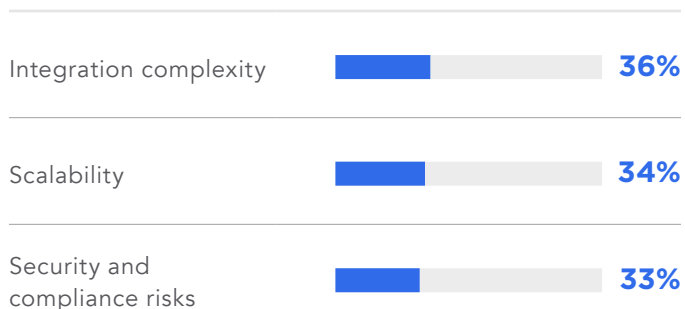
For these decision-makers, a robust, long-term data strategy isn't just crucial for business growth — it's the foundation for successfully adopting next-generation technologies, such as real-time analytics and AI.

To gain perspective into how data-driven innovation is transforming enterprises and technology leadership, Forbes Insights collaborated with [Fivetran](#), a cloud-based, automated data movement platform, to survey 500 C-suite technology leaders from large U.S.-based organizations. The survey explored the challenges enterprises encounter in moving and integrating data in various forms, as well as their data strategies for AI and beyond. Their top challenge in 2025? Navigating the complexity of diverse data formats and structures.

Creating a solid data foundation on which to build real-time analytics and AI requires a high-performance system that is decidedly complicated to engineer. The survey revealed some key challenges for managing data sources — particularly integration complexity, scalability, security, and compliance risks. (See Figure 1.)

FIGURE 1.

Most C-suite tech leaders leverage more than 50 distinct data sources to support decision-making. The top challenges organizations face in managing data sources are:



The executives who participated in the survey — which included chief information officers, chief technology officers, and chief AI officers — oversee disparate data types from an array of internal and external sources. **Of those surveyed, 68% say they are leveraging 50 or more distinct data sources to support decision-making, and some are leveraging many more.**

This data is key to business growth, helping stakeholders make informed, real-time decisions and powering the AI products of tomorrow. But without a means to centralize and unify data, large organizations face common problems: siloed systems, pockets of redundancy, and individuals attempting data analysis beyond their capabilities. Temporary workarounds — including manual processes, custom scripts, or point solutions — often create more complexity than they solve and fail to scale, resulting in inconsistent data, duplicated efforts, and delayed insights.

Instead, enterprises need a modern data foundation built on automated data integration. This enables organizations to continuously extract, load, and transform data from dozens — or even hundreds — of sources into a centralized, governed environment. By consolidating data and eliminating manual workflows, organizations reduce friction, improve data trust, and empower teams to spend less time managing pipelines and more time delivering impact.

George Fraser, CEO of Fivetran, underscores the profound impact that data centralization can have for organizations. “If you don’t centralize your data, it’s impossible to know what is really happening in your business,” he says.

Achieving this visibility requires more than intent — it demands execution. Moving diverse data reliably, at high velocity, and at scale requires a seamless data strategy supported by the right technology. To kickstart their data strategy, forward-looking organizations are investing in high-performance data integration platforms to power a scalable, secure, governed, and AI-ready infrastructure capable of managing data across complex, distributed ecosystems.

Read on to discover how technology leaders are addressing challenges around building resilient data foundations, operationalizing AI at scale, and setting a future-proof strategy.



Empowering the business with modern data tools

More scalable data operations start with better data management

Executives understand that to meet their goals, they must tackle data first. That means centralizing data from many disparate sources in a consistent, secure, and accessible way so business teams can access insights faster and build downstream AI-driven workflows. This foundational approach aligns directly with two of the surveyed executives’ key data priorities: the centralization of data (56%) and distributed access to data across teams (51%).

But most enterprises face significant barriers to scaling their data infrastructure. Fragmented systems and federated data sources stand in the way of integration, resulting in performance bottlenecks. Limited automation and self-service capabilities (45%), high implementation costs (44%), and lack of real-time or streaming data capabilities (43%) are among the challenges respondents face when streamlining their current data integration stack. (See Figure 2.)

FIGURE 2.

What are the greatest challenges your organization faces in streamlining your current data integration stack?

Limited automation and self-service options for business users	45%	Lack of real-time or streaming data capabilities	43%
Difficulty scaling data integration to meet business needs	44%	Data quality and consistency issues	42%
Legacy system limitations	44%	Complexity in integrating on-prem and cloud systems	42%
High implementation costs	44%	Lack of skilled talent	41%
Managing increasing number of data sources	43%	Inadequate data governance and security frameworks	41%

The challenges of scaling data architecture and creating distributed data access are recurring themes in the survey. Only 49% of technology leaders say their existing architecture can scale cost-effectively, and less than half believe their current infrastructure meets performance demands. Traditional on-premises data integration platforms can't keep up in terms of scale, speed, and cost; in fact, scalability is the top factor technology leaders look for when evaluating integration tools. (See Figure 3.)

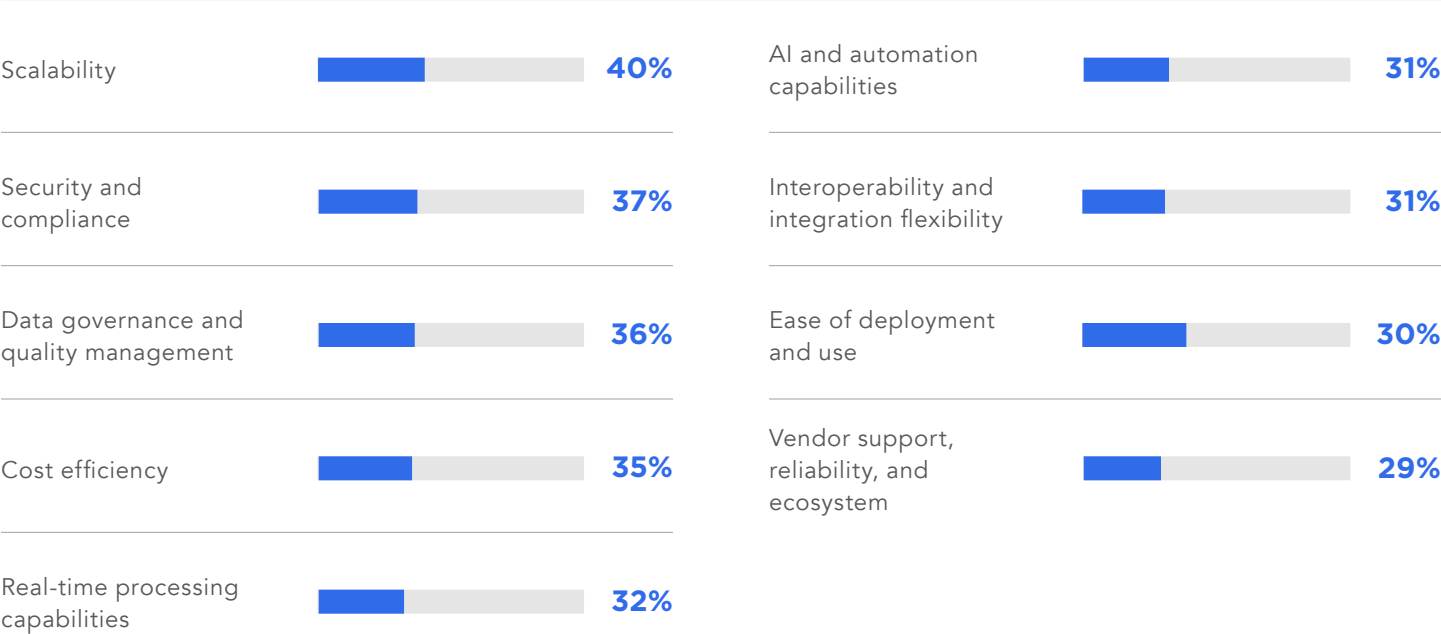
These limitations highlight the indispensable role of modern data integration tools in addressing scalability, and the payoff for investing in them is significant. The vast majority (87%) say the ROI on data centralization has met or exceeded their expectations, and half of surveyed leaders say their organization plans to invest \$500,000 or more in data integration components as part of their AI data foundation over the next 12 months. If successful, they expect to realize operational efficiency gains, improved data access, and enhanced scalability for AI workloads.

In 2025, technology leaders share two organizational priorities: enhancing data accessibility and usability across business teams (41%) and improving data integration across systems and applications (39%).



FIGURE 3.

When evaluating data integration tools, which of the following factors matters most?



By centralizing data and adopting modern data movement platforms, enterprises can:

- Unify data from multiple sources into a central foundation
- Automate integration and replication at scale
- Support distributed access and collaboration across business units
- Lay the groundwork for real-time analytics and AI workloads

When modern data movement tools fuel a business, siloed systems give way to seamless access, data becomes truly actionable, and teams are no longer held back by pipeline maintenance or integration complexity. And it's proving successful for Fivetran customers like Sharp HealthCare, a California-based healthcare group. Jon McManus, Sharp HealthCare's Vice President and Chief Data and AI Officer, says they partnered with Fivetran to establish automated pipelines, centralizing data from disparate sources to drive business efficiency and impact.

"When we looked at what was important, we really wanted to modernize, taking advantage of hyperscalers and public cloud [to] develop a platform-oriented concept so that we could provide an array of capabilities to empower the business," says McManus.

Sharp HealthCare started by using Fivetran to unify federated data sources "so they all looked and felt like they lived in the same place," he explains. Using Fivetran, they centralized data from over 200 sources, fueling internal analytics in sales, human resources, and patient/customer analytics. McManus and his team have also enabled groups across the business to derive insights from this data — all while ensuring full lifecycle data provenance and accountability, aligning teams, and setting them up for future AI initiatives.

An integrated data platform like the one McManus describes provides the scalability to expand data-driven decision-making across the enterprise and beyond. Sedgwick, the world's leading risk and claims administration partner and a Fivetran customer, offers a prime example. After a series of acquisitions, Sedgwick had the opportunity to enhance its data operations, and the company's Chief Data Officer, Adam Fisher, embarked on a four-year mission to centralize talent and data. Sedgwick worked with Fivetran to centralize its data in order to create tooling and infrastructure for self-service and interactive reporting. This enabled teams to scale projects

more creatively and expeditiously, says Fisher. Beyond this technical agility, their centralized data foundation has fostered a more collaborative environment, benefiting the insurers and businesses entrusting them with claims management.

"We've had a lot of success in sharing data back to some of our biggest clients in a capacity that we just didn't have before," Fisher says, in a testament to how a unified data strategy can strengthen external partnerships while improving internal efficiency.

Across healthcare, retail, manufacturing, and other industries, modern data movement tools create the means to more fully realize the potential of every organization's most valuable assets: their people *and* their data.



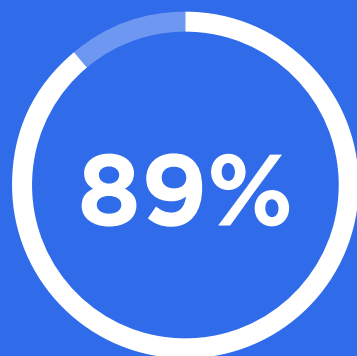
Powering AI with integrated data

Large language models dominate the data landscape

The large language model (LLM) landscape is growing at breakneck speed — expanding at an [annual rate of 80%](#). Nearly half of the surveyed technology leaders are already turning to AI to support decision-making, optimize operations, improve customer experience, and unlock new revenue streams through data monetization.

But building competitive AI systems — especially LLMs — requires more than off-the-shelf models or open datasets. The real differentiator lies in proprietary data: the domain-specific, contextual knowledge unique to each business. Unlike generic training data, proprietary data reflects the nuances of individual customers, operations, and markets, enabling models to deliver more relevant, accurate, and impactful outputs.

The most effective LLMs provide custom results, and forward-looking IT leaders are already relying on a range of proprietary data sources to train specific AI models, including enterprise data (53%), customer and behavioral data (52%), and unstructured data (51%) — much of which is regulated or subject to privacy restrictions. Notably, 89% of surveyed leaders plan to use proprietary data to train LLMs in 2025. To successfully adopt and scale LLMs for custom results, enterprises must mobilize their proprietary data in a governed and accessible way.



of surveyed leaders plan to use proprietary data to train LLMs in 2025.

While organizations are eager to implement AI, they're hitting barriers due to fragmented data systems, lack of centralized governance, and misaligned tools — all of which stand in the way of creating the LLMs that could revolutionize their businesses. A lack of technical skills, slow implementation, and challenges with change management and workforce adoption are among the most significant barriers, according to those surveyed. (See Figure 4.)

"Data tools have traditionally not prioritized simplicity, [but] there is a new wave of tools across the data stack that prioritize simplicity," says Fraser. "Optimizing for simplicity means giving up niche features, [but] leaders who prioritize simplicity will [see] benefits [and] — most importantly — their projects will actually complete in a reasonable amount of time."

To unlock the full potential of LLMs, organizations must go beyond model selection and focus on the foundation that activates AI at scale: a modern, integrated data infrastructure. LLMs require continuous access to high-quality, well-governed, and context-rich data — from both structured and unstructured sources. Without this foundation, even the most advanced models will deliver inconsistent results, limited insights, or outright failures.

FIGURE 4.
What are the most significant barriers to implementing new data technologies for your organization?

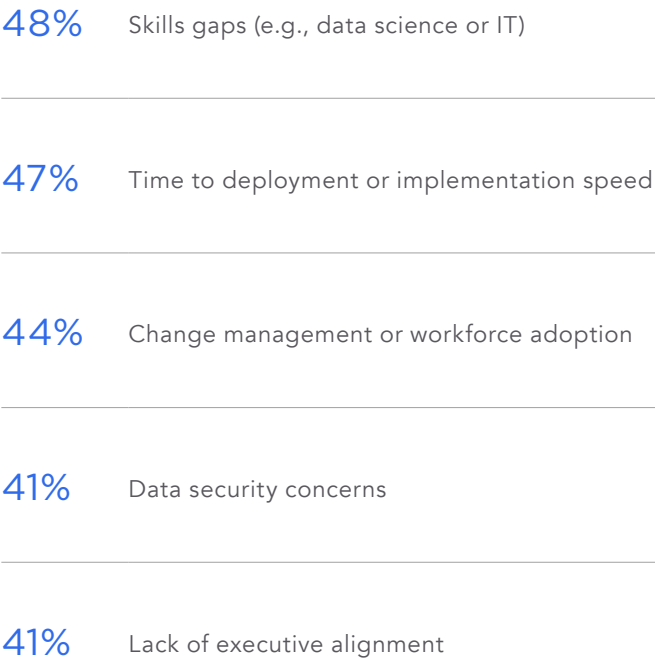
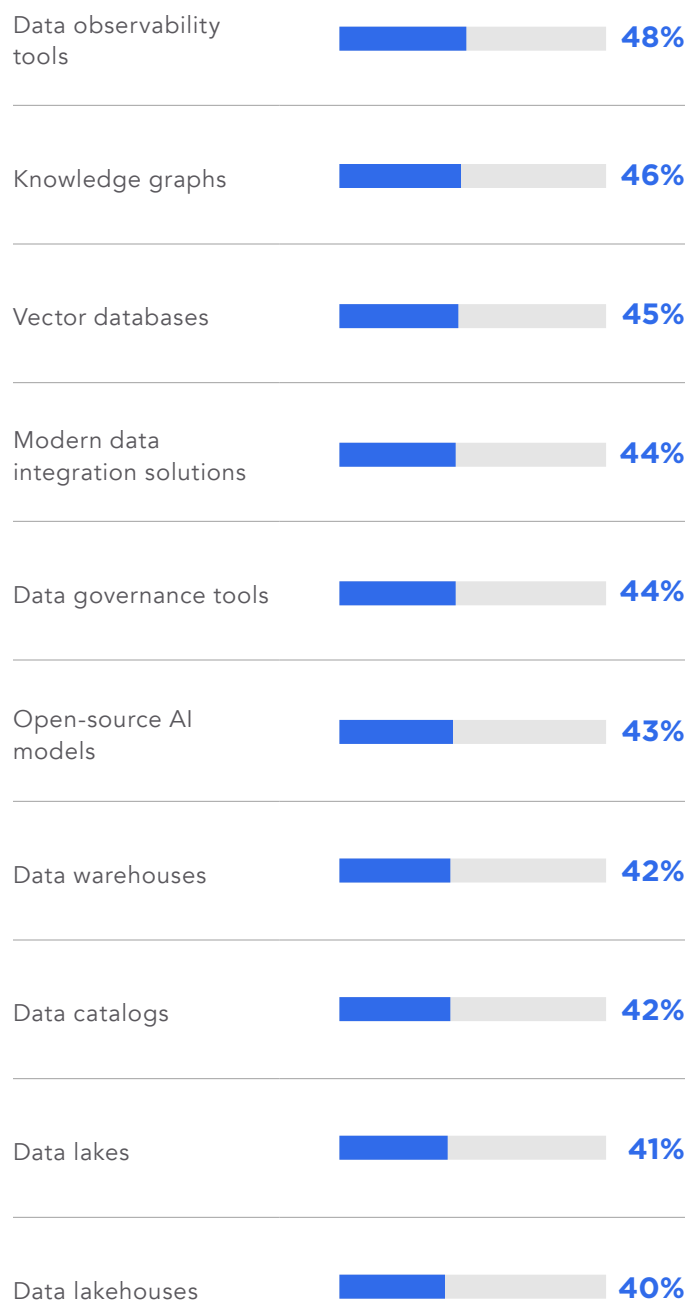




FIGURE 5.

Which of the following data and AI technologies does your organization plan to adopt over the next 12 months?



That's why a modern data integration platform is no longer a nice-to-have — it's a strategic requirement. These platforms simplify and automate the flow of data across increasingly complex ecosystems, removing the manual work and latency that slow down AI adoption. With a strong integration layer in place, organizations can ensure their proprietary data is always accurate, up to date, and ready to sustain real-time applications.

An automated data movement platform equips organizations to:

- Centralize and automate the movement of enterprise, customer, and unstructured data
- Build a connected data stack across all of their data-focused tools
- Focus on data quality, governance, scalability, and real-time access as core AI-enabling pillars
- Leverage LLMs to enhance human decision-making and productivity

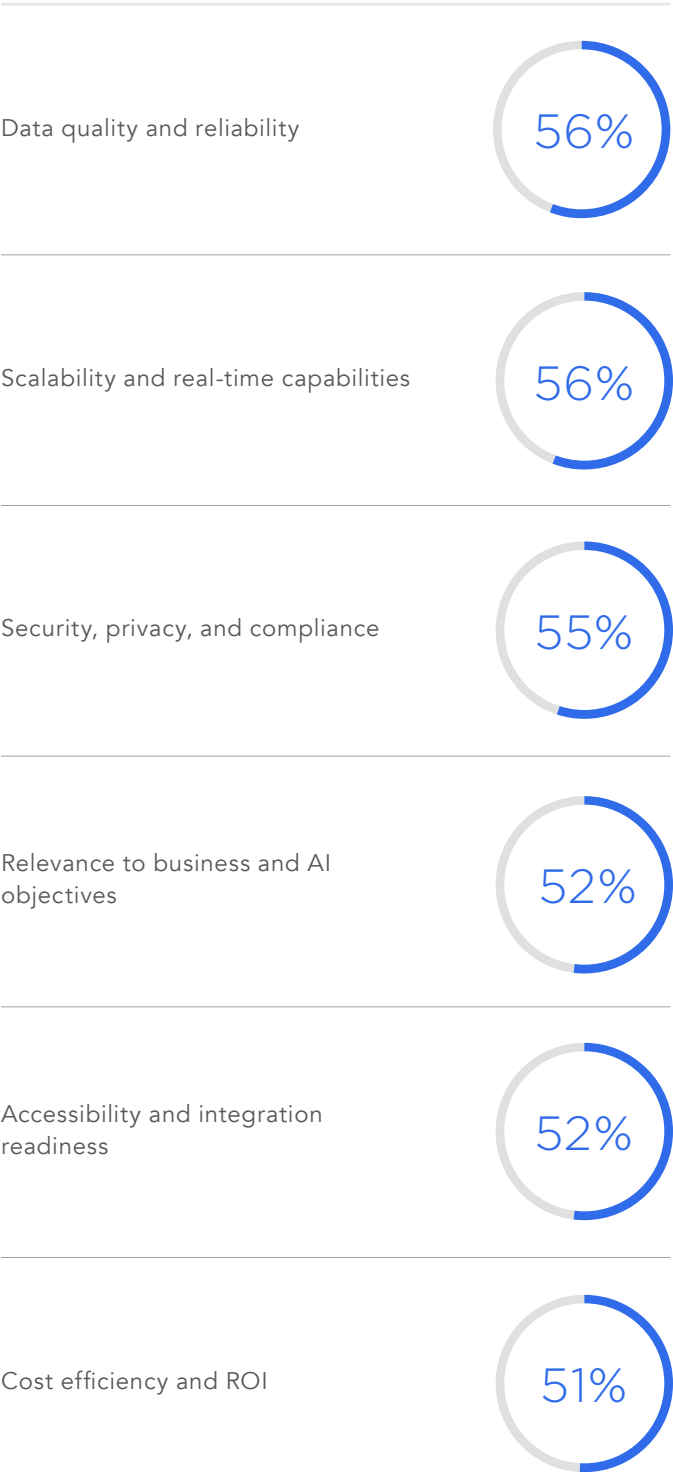
To achieve those results, respondents report plans to invest in data observability, governance tools, and modern data integration platforms — like Fivetran — in the year ahead, recognizing that with the right foundation in place, their organizations can confidently move from experimentation to production-ready AI. (See Figure 5.)

Technology leaders are also carefully considering which data is ready for AI deployment. Respondents cite data quality, scalability and real-time capabilities, and compliance as the top factors in selecting AI-ready data sources. (See Figure 6.)

At Sedgwick, that focus on ensuring foundational data quality is already fueling innovation. Now with the company’s data centralized and well-governed using Fivetran, Sedgwick has built a tool, known as Sidekick Agent, that continues to transform the claims administration process by integrating generative AI, agentic AI orchestration, and data science into its global claims management systems. Sidekick Agent promotes understanding of data science models, provides analytics around claim durations and reserves, and offers guidance on key next steps of the claim lifecycle. The tool introduces efficiencies that streamline decision-making and lead to optimal claimant experiences, cost-effectiveness, and claim outcomes. Adjusters will see a range of what similar claims have cost in the past and how likely they are to be litigated — all in the moment they’re working on each new claim. “The future is all about incorporating large language models and much more sophisticated AI,” Fisher says.

The ability to access and consolidate data across the organization is critical to driving enterprise AI success now and in the future.

FIGURE 6.
What criteria does your organization use to determine which data sources are the most valuable in driving AI-related initiatives?



Guardians of the data universe

Security and governance requirements are changing the role of technology leaders

To drive innovation without compromising trust, technology leaders must treat security, compliance, and data privacy as non-negotiable pillars of their data strategy. These safeguards can't be added on — they must be embedded from the start, especially as AI initiatives scale and expose organizations to greater risk.

AI requires precise, proactive data governance, yet many enterprises are struggling to keep up. Without strong controls, AI projects can quickly lead to data leaks, regulatory breaches, and lost credibility. The survey makes it clear: Security is both a barrier to innovation and one of the most urgent investment priorities for modern enterprises.

Nearly three-quarters of chief information officers (CIOs) surveyed are prioritizing security investments before innovation, and 64% are delaying innovation to address compliance challenges.

Technology leaders understand they can't risk exposing sensitive data to the outside world or to internal users who shouldn't have access to it. As data volume increases and data reaches more people, ensuring only the right people have access becomes harder and riskier. Adopting a centralized data infrastructure with a data integration platform creates an opportunity to deploy modern tools to monitor and manage access in ways that weren't possible before, including:

- Building security and compliance directly into the development pipeline
- Replacing static, high-risk reporting with selective data sharing and revocable access controls
- Using centralized platforms to monitor and manage access at scale
- Empowering technology leaders to take ownership of orchestration, privacy, and AI governance

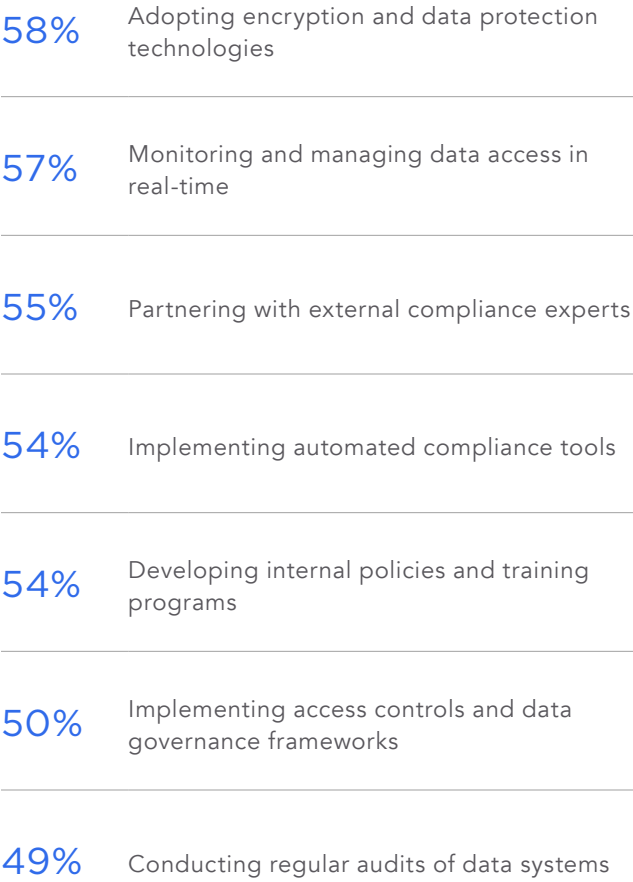


Technology leaders are already taking several steps to support real-time data access management, automation, and full lifecycle governance — all while driving AI innovation. They're adopting encryption, partnering with external compliance experts, and implementing automated compliance tools. (See Figure 7.)

Sedgwick's approach is a strong example of this security- and compliance-focused shift in action. After centralizing its data with Fivetran, Sedgwick replaced thousands of unmonitored reports with controlled, revocable data access environments, drastically reducing risk and improving trust.

FIGURE 7.

What steps has your organization taken to ensure data security and compliance while driving data and AI innovation?



"Instead [of] producing thousands of reports that were just shipping out automatically ... [we have moved to a] very controlled environment that has a password as long as my arm that only one person can access," Fisher says. And if Sedgwick needs to remove access, it can retract the data with the push of a button.

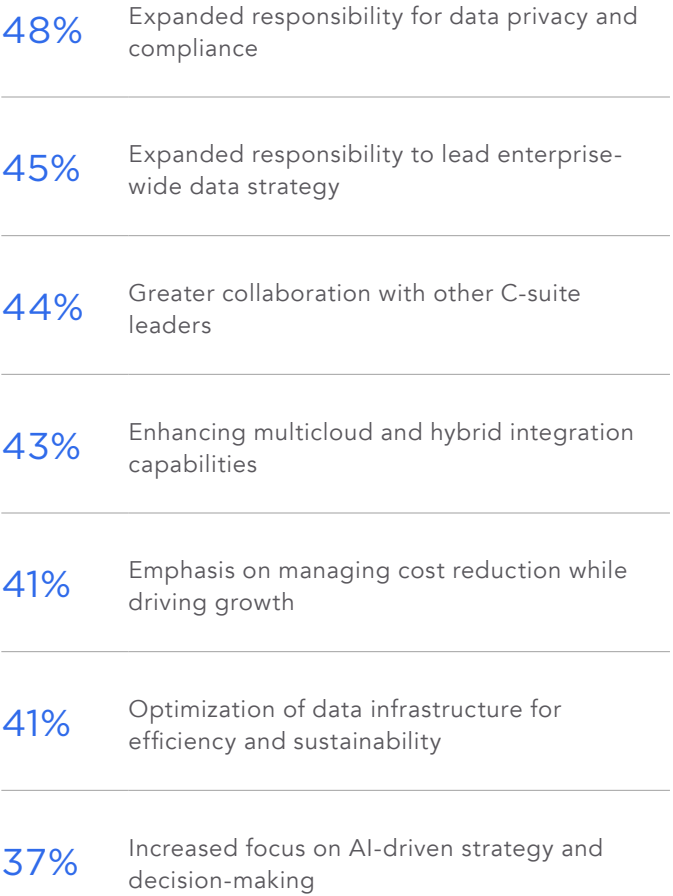
Indeed, the emphasis on aligning operations with strategic and security goals is a shared imperative among technology leaders. Sharp HealthCare's McManus acknowledges the organizational challenges of data governance but stresses its vital role in ensuring a successful data movement and centralization strategy. "The more you can build that into the development pipeline ... the more success you're going to have on reaching that goal of full lifecycle data governance and data lineage across your assets," he says.

As drivers of data-led innovation, technology leaders see their roles leaning further into strategy and security. Nearly half forecast they will have expanded responsibilities for data privacy and compliance, and 45% expect to spend more time on enterprise-wide data strategy over the next two years. (See Figure 8.)

McManus predicts a future where data fluency, analytics, and AI strategy converge under a new generation of tech leadership. It comes down to "the ability to really seize emerging technologies that are dependent on high-quality data to drive capabilities in the business," he says. "I think there's going to be a new name for this combination of skills as we look forward."

FIGURE 8.

How do you anticipate the evolving trends in data integration and management influencing the role of C-suite technology leaders over the next two years?



Conclusion

Next-generation technologies demand a foundation of unified data

The ability to harness AI and cutting-edge technologies — and deliver meaningful business outcomes — depends on enterprises having reliable access to diverse data at high velocity and at scale. That requires a unified data strategy supported by seamless data centralization and powered by modern data integration platforms. Building a successful foundation starts with solutions that are:

- Scalable
- Secure
- AI-ready

“Scalability, governance, and security are table stakes for data integration,” says Fraser. “The best systems scale transparently in the background.” And ultimately, data is only as valuable as your ability to securely scale it, activate it — and turn it into measurable business impact.

DEBORAH ORR

Report Author

Methodology

Data from this report is drawn from a survey conducted by Forbes Insights in partnership with Fivetran from March to April 2025.

A total of 500 U.S.-based C-suite technology leaders from organizations with annual revenue of over \$500 million were surveyed. They had the following job titles: Chief AI Officer (CAIO), Chief Digital Officer (CDO), Chief Information Officer (CIO), Chief Information Security Officer (CISO), and Chief Technology Officer (CTO).

