



Building a Data-First AI Playbook

Top-performing organizations are looking beyond the algorithm. Learn their investment strategy secrets to build a resilient data foundation to de-risk and accelerate your AI initiatives.

The AI Paradox: Ambition Built on a Shaky Foundation

The enterprise mandate is clear: AI is the strategic objective. Boardrooms globally are betting their future on it, driving a surge in investment projected to push the Data Intelligence, Analytics, and Infrastructure (DIAI) market past \$475 billion in 2025. Futurum primary research confirms this priority, with 52% of 800+ enterprise decision-makers stating that generative and agentic AI tools will make up their top investments during the coming year.

However, a profound disconnect exists between this ambition and the operational reality. A joint study from Kearney and The Futurum Group, "Are CEOs Ready to Seize AI's Potential?", found that while 78% of CEOs feel confident in their ability to capture value from AI, a staggering 60% of executives with stalled AI initiatives cite fragmented data and outdated infrastructure as the primary culprits. This isn't a failure of AI models or AI tooling; it's a failure of the underlying data fueling those models and tools. This is the great AI paradox.

This foundational crisis stems from three systemic points of failure:

- **A Data Quality Crisis:** The adage "garbage in, garbage out" has never been more consequential. For years, organizations have accumulated "data debt" by hoarding and ignoring information stored in disparate systems with little attention paid to quality or governance. That debt is coming due thanks to AI's voracious appetite for high-quality, trustworthy data. It is no surprise that the number one source of dissatisfaction with current data stacks, cited by 20% of practitioners, is "Data quality, trust, and governance." Poor data quality doesn't just lower the accuracy of AI models; it leads to flawed business decisions, erodes trust, and can introduce dangerous biases and blind spots.
- **An Architectural Bottleneck:** AI requires access to immense volumes of data, which are often fragmented across a complex web of edge locations, remote offices, employee laptops, core data centers, and multiple clouds. This siloed reality makes leveraging data for centralized AI projects nearly impossible, forcing data scientists to become data hunters and gatherers. This fragmentation is a primary roadblock to success because it robs teams of precious time.
- **A Security Blind Spot:** Using sensitive, proprietary data to fuel AI models creates enormous security risks and compliance struggles. With new tools that allow data to move more freely than ever, organizations expose their company's most valuable possession to unnecessary risk. Without a purpose-built, secure framework, this data movement and exposure can be a recipe for disaster.

The Central Tension in Enterprise AI:



While building AI is the top strategic goal for data teams, they are most frustrated by the poor quality of their data foundation. In essence, data professionals are being asked to build a skyscraper on a foundation of sand.

Top Team Objective:





The Data-First Playbook: Building for Success

To break this spell, leading organizations are not just trying harder with the same methods, spending more money on maintaining fragile data pipelines, for example. Instead, they are adopting a Data-First Playbook, a strategy that de-risks and accelerates AI initiatives by building a resilient and AI-ready data foundation. This playbook consists of three critical "plays."

Play 1: A Dual-Track Investment Strategy

Leaders understand that investing in AI tools alone is a recipe for failure. They are making massive, parallel investments in the foundational components that make AI work. Futurum data reveals a balanced investment portfolio: while 52% of enterprises are increasing investment in Generative AI, this is followed closely by 41% investing in foundational Data platforms (data warehouses, lakes, and lakehouses) and 40% in Data quality and observability tools. The takeaway is clear: successful companies fund the AI engine and the high-octane fuel required to run it. One without the other is a waste of time and energy.

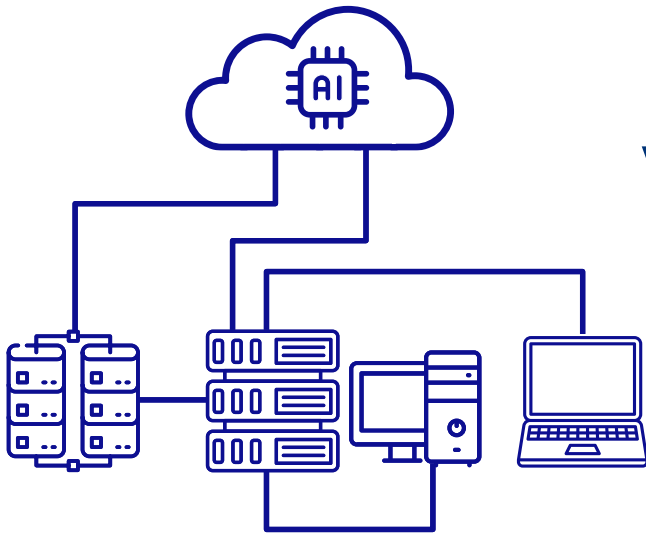
Play 2: Embracing a Unified, Hybrid Cloud Architecture

Top performers are aggressively tackling data fragmentation without disruption. They recognize that data is everywhere and that the old approach of pushing everything into a centralized data store is obsolete. Instead, leaders are adopting a unified, hybrid data platform. This creates a single, logical view (a global file system) and a consistent set of services for all unstructured data, regardless of physical location. This approach provides the flexibility and control needed for the demanding AI era. This trend is underscored by Futurum's survey data, which shows that 47% of organizations now operate with a Hybrid Cloud deployment model, providing the best of both worlds for scalability and security.

Play 3: Bringing AI Securely to the Data

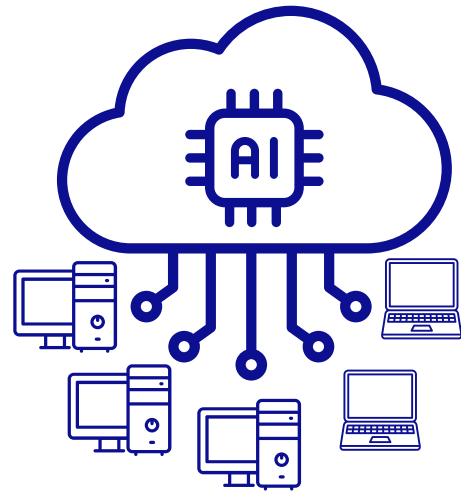
This is the most advanced and critical play: turning the traditional data-for-AI model on its head.

The Old Way High Risk, Slow, Costly



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The Modern Playbook Secure, Fast, Efficient



The "Old Way" involves moving massive, sensitive datasets out of a secure environment and into a separate AI cloud. This approach is incredibly slow and expensive due to data ingress and egress costs, and can be a security nightmare. The "Modern Playbook," on the other hand, brings AI compute securely to the data itself. Proprietary information doesn't have to leave the safe confines of its governed, secure hybrid platform. By embedding AI services directly into the data platform, organizations can run large language models and other AI and analytics workflows on their private data, using advanced practices such as zero-trust security architectures to verify every access request, regardless of origin.

The Path Forward: Moving from High Risk to High Reward

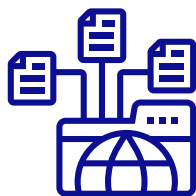
Executing a data-first playbook delivers tangible business outcomes beyond simply having "better data."



Accelerate Efficiency: A modern platform automates repetitive, error-prone data maintenance tasks that regularly bog down data professionals. Futurum research reveals that 47% of data professionals spend more than half their time on such low-value work. This includes the time-consuming process of locating correct data sources, petitioning for access, cleaning messy data, and imputing missing values—all before any value can be created. Reclaiming this time can unleash immense innovation potential.



Enhance Human Capital: By automating the technical grunt work, companies can empower expensive data professionals to become the strategic business innovators they were hired to be. This aligns with a key market trend, as Futurum research shows 73% of data professionals report their roles are already shifting to be more strategic and business-facing.



Enable True Data Democratization: A secure, unified foundation is the prerequisite for achieving true data democratization—safely empowering non-technical users to access data and generate their own insights. This is the realm of emerging, AI-fueled user experiences capable of trading SQL for natural language. A total of 52% of practitioners believe this is a critical goal that will greatly help their organization succeed.



"The future of AI isn't about having the best AI model... It's about bringing the best data to that model."

— Brad Shimmin, VP and Practice Lead, The Futurum Group

"Over 60% of executives with stalled or ineffective AI cite fragmented data and outdated infrastructure as main culprits."

— Futurum CIO Decision Maker Survey 2025

Top Recommendations

For enterprise leaders ready to move from high-risk AI wagers to high-value rewards, the path forward is clear:

1 Audit Your Foundation:

Before investing another dollar in a new AI tool, conduct an honest and rigorous assessment of your data landscape. This means asking tough questions: Do we know where our most critical data lives? Can we vouch for its quality, lineage, and completeness? Are our data pipelines brittle and slow? What are our security and compliance blind spots, especially concerning sensitive data used for AI training? Acknowledging your "data debt" and understanding the true state of your foundation is the essential first step. You cannot build a skyscraper on a foundation of sand.

2 Adopt a Balanced Portfolio:

Reframe the investment conversation. Funding the data foundation is not a cost center. It is an innovation enabler. Make the business case for modernizing your data platform with the same passion used to champion AI tools, showing that the ROI of any AI initiative is directly dependent on the quality of the underlying data estate. The risk of an unbalanced portfolio is immense: wasted AI spend, stalled projects that fail to deliver value, and demoralized teams. As Futurum research shows, leaders are already making these dual-track investments. They understand that AI tools and data foundations are two sides of the same coin; one is useless without the other.

3 Invest in a Unified Hybrid Data Platform:

Future-proof your strategy for a world where data will only become more distributed across edge, core, and multi-cloud environments. A unified platform provides the architectural agility to manage this entire estate. Critically, you must select a platform that allows you to run AI compute securely where the data lives. This modern approach preserves data sovereignty, eliminates costly and slow data movement, and dramatically strengthens your security posture by keeping your most valued asset within a well-governed perimeter. This is the key to unlocking the full value of data without undue risk, cost, or complexity.

About Our Decision-Maker Survey Data

This analysis is based on The Futurum Group's IH 2025 Data Intelligence, Analytics, and Infrastructure (DIAI) Decision Maker survey, which captured insights from 839 senior professionals grappling with data complexity and AI adoption.

70% IT Professionals / **30%** Business Users

70% from Companies with **>1,000** Employees

74% from Companies with **>\$500M** Annual Revenue

Top Roles:

IT Management (18%), Analytics Manager/Director (10%), Data Analyst/BI Analyst (10%)

Budget Authority:

Centralized IT (27%), Executive Leadership (25%)

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