RESEARCH REPORT

The Global CIO Report

Enterprise AI Adoption: Risks, Readiness, and Ensuring Strategic Value

OrbusSoftware

Contents

Foreword

AI is transforming the enterprise at a pace few could have predicted: **accelerating opportunity, amplifying risk, and redefining what it means to lead.** CIOs now have a clear mandate to unlock the value of AI while ensuring the business can trust it, scale it, and govern it responsibly.

Yet our research shows how difficult that balance has become. **Almost all (98% of) CIOs surveyed lack visibility into the technical and business risks of AI,** creating blind spots that undermine both confidence and control.

And the impact is real. Over the past year, more than half of CIOs report that AI initiatives have cost more than the value delivered, duplicated efforts across teams, or stalled because the data foundation wasn't strong enough to move forward.

These challenges don't diminish the promise of AI, but they do highlight the need for a more intentional, governed, and strategic approach. That's why we've developed this peer-informed report to provide CIOs with a clear view of where others are advancing, where they're struggling, and what it takes to translate AI from ambition into enterprise-level impact.

It also provides the clarity, evidence, and structure needed for board-level conversations, in turn serving as a cut-and-paste resource for CIOs to confidently present AI priorities to the highest levels.

As organizations race toward AI maturity, one thing is clear: progress depends on visibility and a clear focus on business outcomes.

Steve Fulton
Chief Executive Officer
Orbus Software

Executive Summary

AI has become a board-level priority, promising faster growth, sharper competitiveness, and measurable operational gains, and CIOs are under increasing pressure to deliver that value at speed. But, while expectations are rising, the core foundations required for responsible, scalable AI adoption – visibility, governance, and business alignment – are missing in most organizations.

This visibility gap is now the defining barrier to AI maturity. Without a clear view of where AI is being used, how it behaves, and what value it delivers, CIOs struggle to manage risk, prioritize investment, and demonstrate impact. The result is duplicated effort, rising costs, and projects that fail to scale.

Key findings

CIOs' top drivers of value for AI adoption are improved market share, increased ROI, accelerated time to value, improved profitability, and competitive differentiation.

98% of CIOs **lack visibility into the technical and business risk of AI,** creating governance blind spots as adoption accelerates.

78% of CIOs **struggle with shadow AI**, driven by unsanctioned tools, unclear usage, and weak enforcement mechanisms.

80% say **manual oversight cannot keep pace** with identifying and assessing AI risk, fueling the need for automated governance.

79% report **unclear ownership and accountability for AI initiatives,** making it difficult to define controls, measure impact, or scale safely.

80% struggle to bridge technical possibilities with business priorities, leading to poor outcomes: **over half of projects ended with unclear business value and costs exceeded the value delivered.**

82% of **CIOs rely on enterprise architects to identify and assess AI-related risks, u**nderscoring the need for architectural visibility into systems, dependencies, data flows, and business capabilities.

The findings of this report make it clear that AI's promise can only be realized when CIOs establish universal visibility and govern AI with discipline, automation, and business alignment.

The AI Adoption Imperative... and Risks

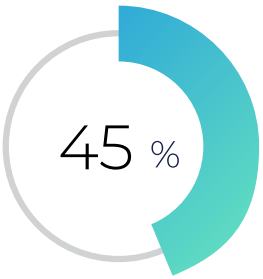
AI is unlocking transformative value, but its speed and complexity demand that CIOs navigate the opportunity and risk in parallel.

The "Promised Land" of efficiencies, competitiveness, and growth

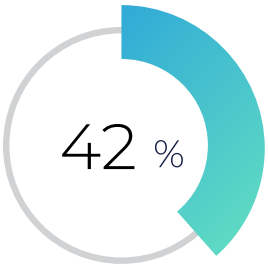
AI has shifted from experimentation to expectation. Boards now want governed adoption, rapid scalability, and measurable ROI – and they expect CIOs to deliver.

This clearly maps back to CIOs' key value drivers for AI, outlined below in order of priority:

- **Improve market share:** AI shortens innovation cycles and sharpens customer experiences, both critical to defend and win share. For example, **67% of S&P Global's cohort of AI "trailblazers" report generative AI materially differentiates products and services.** [1]
- **Accelerate time to value:** Automating repetitive tasks, shortening project timelines, and delivering measurable benefits sooner.
- **Increase ROI:** By removing waste and optimizing processes, AI amplifies returns across the business.
- **Increase profitability:** Pricing optimization, targeted promotions, and service automation improve margins and overall profitability. Boston Consulting Group found that one-fifth of consumer product and retail companies already report making big gains with AI-driven personalization, which lifts conversion, basket size, and profitability. [2]
- **Drive competitive differentiation:** When AI shapes the product experience by anticipating needs, tailoring outcomes, and automating complexity, it creates a competitive moat rooted in customer value that competitors can't easily bridge.



of CIOs' primary business objective for AI initiatives is improved market share



of CIOs prioritize accelerating time to value

Risks and Business Impact of Rushed Adoption

Pressure to deliver quick wins can backfire, with technical, regulatory, and operational risks threatening both projects and reputations. Here are the top risks that CIOs prioritize, in order:

1. **Customer and reputation risk:** Faulty experiences and public incidents erode trust. This is a particular concern given the wide public distrust of AI. One global study revealed that while 66% of people are already intentionally and regularly using AI, just 46% are willing to trust it.[3]

41%

41% of CIOs' greatest business concern for AI initiatives is customer and reputation risk.

2. **Regulatory and compliance exposure:** Opaque decision-making and improper data use invite fines and scrutiny.

3. **Operational failures and cost overruns:** Integration breakdowns, escalating implementation costs, and low adoption are eroding productivity and ROI.

82%

of CIOs say AI initiatives are duplicative and fragmented due to misalignment

4. **Poor quality output:** Weak data and immature controls fuel inaccurate or biased results. Compounding the risk, 31% of CIOs we surveyed report insufficient AI expertise and unclear ownership, conditions that slow scaling and obscure accountability.

$67.4B

Global losses caused by AI hallucinations in 2024, according to McKinsey [4]

The takeaway for CIOs:

The value story and the risk story are the same. With governed, business-oriented adoption, AI accelerates time to value, raises ROI, and expands share. Without it, projects fragment, costs rise, and trust erodes.

AI Governance is the Achilles Heel

Accelerating AI adoption has outpaced oversight. Policies exist on paper, but day-to-day visibility and control lag, with 98% of CIOs lacking visibility into AI's technical and business risk.

Invisible AI is Risky AI

Varonis exposed how nearly all (98%) organizations report unsanctioned AI use by employees.[4] Shadow AI thrives where monitoring is weak. When organizations don't know which AI tools are in use, by whom, on what data, or under which controls, it creates blind spots that invite security failures, compliance breaches, and runaway costs. The cost is real. **IBM's global breach data shows that 97% of organizations experiencing an AI-related security incident lacked proper AI access controls.**[5]

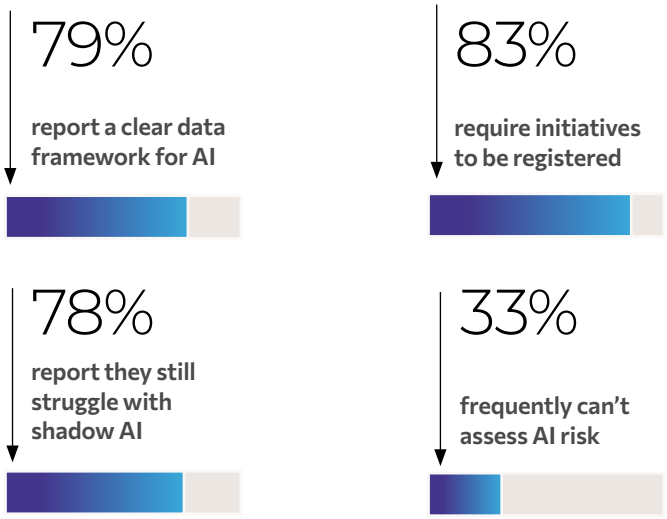
Agentic systems raise the stakes. Autonomous AI agents introduce operational complexity that many enterprises can't yet monitor, from data flows and model usage to compliance status, with fragmented data and integration gaps remaining a frequent challenge for IT teams (38%).

But the impact lands squarely on the CIO. Nearly all (98%) reveal how poor visibility into AI risk is directly affecting their role, with **over half spending more time firefighting** instead of shaping strategy.

Matching the Pace with AI Governance

It's important to note this isn't down to a policy vacuum. Despite having AI governance policies in place, many organizations still lack effective oversight – shadow AI persists, risk visibility is inconsistent, and enforcement controls aren't mature yet. The conclusion is simple: **detective controls and enforcement are immature**.

Intent vs. Reality in AI Governance



A risk-first posture is required:

Scale AI safely with proactive governance, automated visibility, and clear decision rights

Proactive, organization-wide governance

Led by IT executives and informed by enterprise architects to identify risks, map controls, and maintain live visibility into vulnerabilities and threats

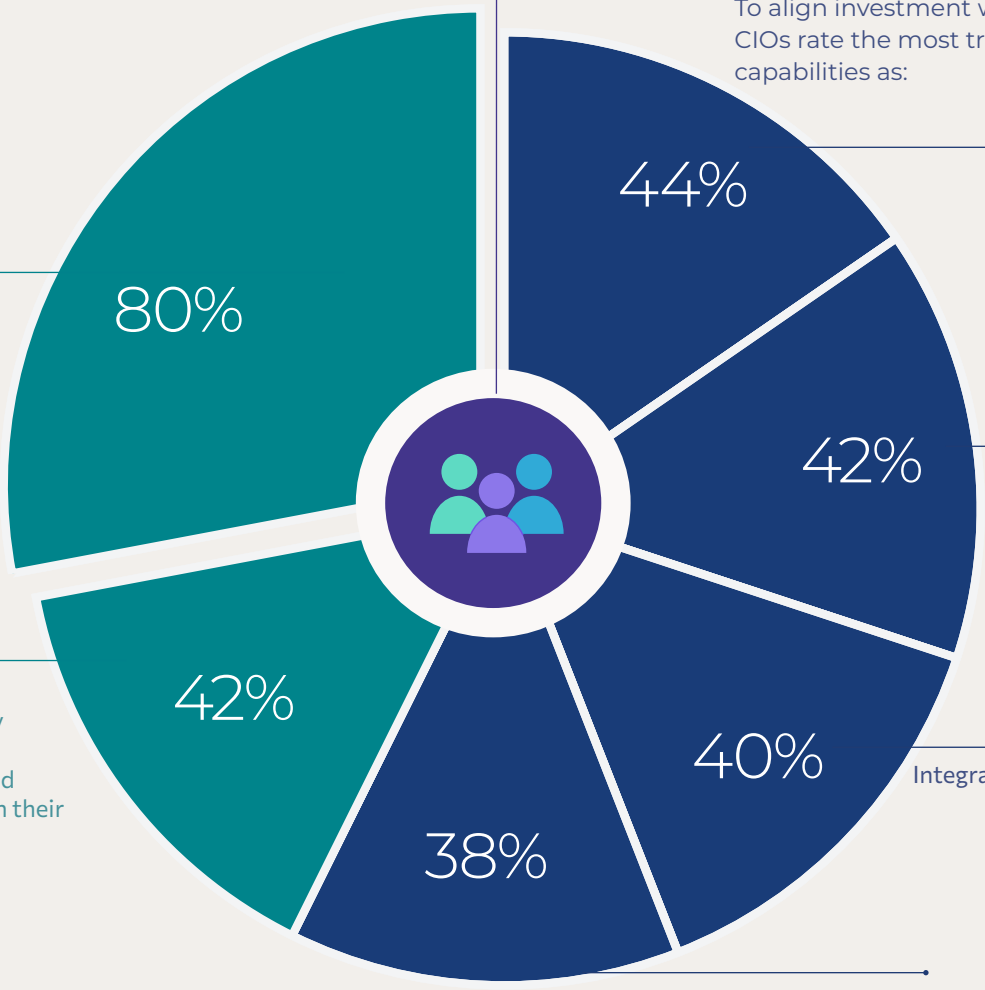
Automated oversight

80% of CIOs agree that manual review cannot keep pace

42% of CIOs believe automated discovery and classification of AI technologies would improve AI delivery in their organization

Standardization and decision rights

To align investment with risk, CIOs rate the most transformative capabilities as:



Standardized ROI models (44%)

Risk-adjusted governance frameworks (42%)

Integration mapping (40%)

Clear decision rights (38%)

IT leaders should prioritize automation, standardization, and defined roles to manage AI risks effectively and support reliable enterprise adoption.

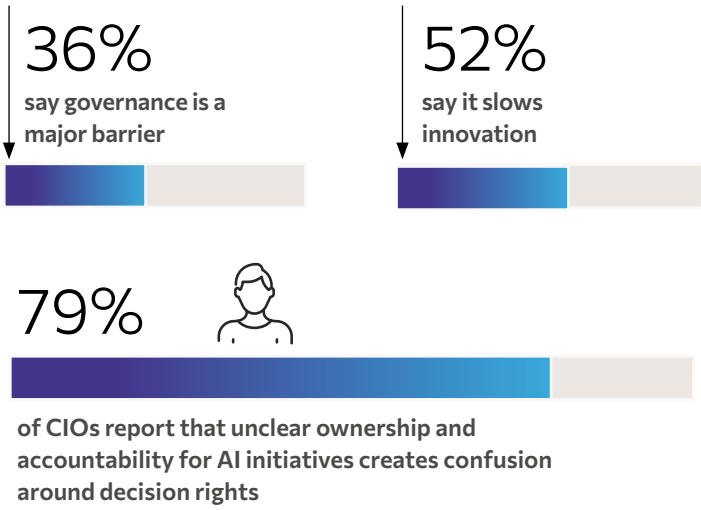
Balancing risk and reward

Governance friction is already clear:

Many leaders say it's a barrier and that it slows innovation.

But the solution isn't less governance.

Automated, intelligence-led governance is needed to keep pace with AI. Without a smart and standardized way to weigh risk against reward or clear ownership, organizations either over-govern and stall, or under-govern and invite incidents.



Proving the Strategic Value of AI

AI only delivers strategic value when technology decisions clearly align with business priorities, but many CIOs lack the insights required to make that connection. Without a shared understanding of how AI capabilities map to business outcomes, investments risk becoming fragmented, duplicative, and costly. This ultimately undermines the very impact CIOs are being asked to deliver.

Limited Insights

For many organizations, the challenge begins with incomplete or unreliable data. CIOs consistently cite incomplete data on AI usage (36%), a lack of standardized evaluation frameworks (35%), and limited visibility into technical dependencies (31%) as top barriers to forecasting ROI.

These aren't trivial gaps. They obstruct the core inputs needed for strategic planning.

Common issues include:

- Poor visibility into data quality, lineage, or ownership
- Missing integration mapping between systems
- Incomplete application inventories and unclear lifecycle status
- No indication of AI readiness, such as API availability or integration constraints

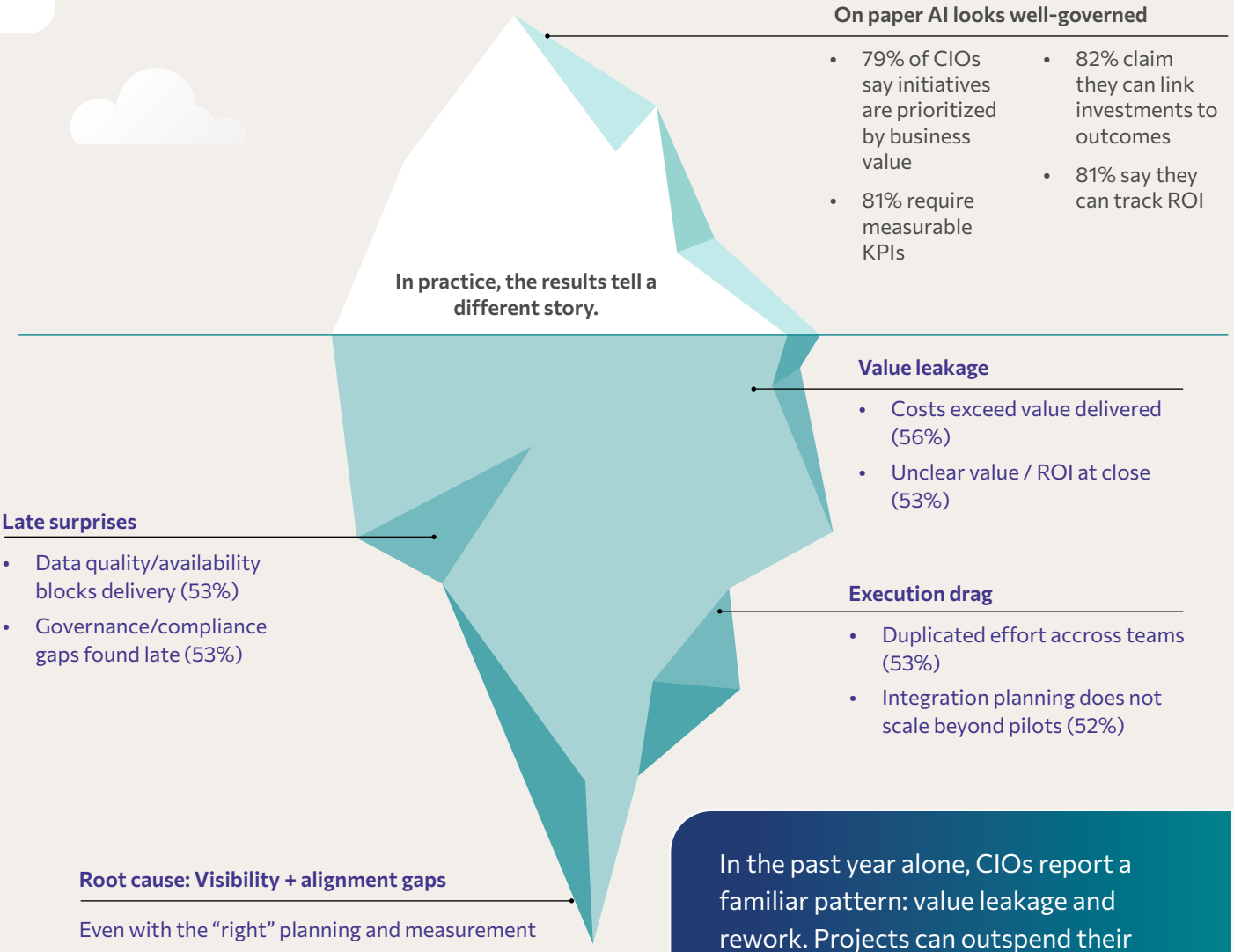
These weaknesses leave CIOs unable to connect technical decisions to business risk or value. **One third report difficulty assessing AI-related risk,** making it harder to inform leadership conversations or identify which business capabilities, processes, or value streams would benefit most from AI.

Impact of a Lack of Strategic Focus

The consequences cascade quickly across the organization.

Declared Governance, Deferred Value.

What looks controlled on the surface often breaks down at execution.



On paper AI looks well-governed

- 79% of CIOs say initiatives are prioritized by business value
- 81% require measurable KPIs
- 82% claim they can link investments to outcomes
- 81% say they can track ROI

In practice, the results tell a different story.

Value leakage

- Costs exceed value delivered (56%)
- Unclear value / ROI at close (53%)

Late surprises

- Data quality/availability blocks delivery (53%)
- Governance/compliance gaps found late (53%)

Execution drag

- Duplicated effort accross teams (53%)
- Integration planning does not scale beyond pilots (52%)

Root cause: Visibility + alignment gaps

Even with the "right" planning and measurement in place, 80% of CIOs struggle to bridge technical possibilities and business priorities. So, pilots stall, costs rise, and value goes unproven.

In the past year alone, CIOs report a familiar pattern: value leakage and rework. Projects can outspend their benefits, teams often duplicate efforts, and initiatives still end without clear proof of value. Delivery is frequently slowed by data readiness issues, while governance/compliance problems surface late – and too many efforts reach the pilot stage without a credible plan to integrate and scale.

The impact on the CIO's role:

46%
say lack of visibility limits ability to act as strategic advisors

48%
say it reduces influence in business planning

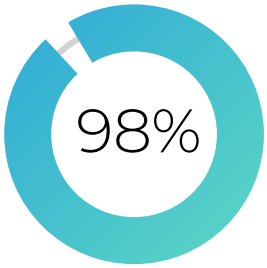
43%
feel it introduces personal reptuation risk

The Path to Strategic Value

Integrating AI insights with business architecture and value stream information changes the equation. It creates a unified view of how AI investments drive outcomes, enabling leaders to prioritize initiatives with the greatest strategic impact. When CIOs can clearly articulate **"where AI creates value and why,"** they elevate both the function and the organization, turning AI from fragmented experimentation into a coherent, value-driven portfolio.

Four Safeguards for Successful AI Adoption

It's clear from the data that AI governance is fundamental to successful AI adoption. CIOs don't have a policy gap around governance; they have a visibility and enforcement gap. With 98% citing poor visibility into AI risk and widespread duplication and misalignment raising costs, the priorities are to see everything, enable automated governance, and frame decisions in business terms.



cite poor visibility into AI risk

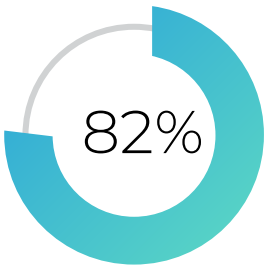
The four pillars for successful AI adoption include:

1

Full-Spectrum AI Visibility

What to do: Automate discovery across cloud, endpoints, identity/access, and collaboration tools. Feed the inventory into your enterprise architecture (EA) repository to auto-classify AI assets, map to business capabilities, and enforce registration and tracking for every initiative.

Why? Because you can't govern – or scale – what you can't see. Leaders consistently cite visibility as a major obstacle. Embedding EA in continuous discovery keeps AI usage current, assessable, and accountable.

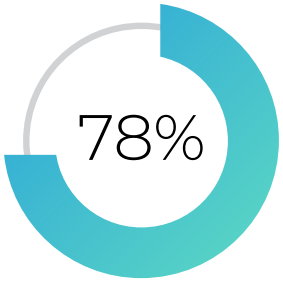


rely on enterprise architects to identify and assess AI risk

2 Automated AI Governance

What to do: Implement risk scoring for AI services and projects, auto-propose controls from standard frameworks, use design-time guardrails (approved tech and reference patterns), and surface centralized dashboards for risk, value, and control maturity to decide what to scale or retire.

Why? Because manual governance can't keep pace with AI. Automation makes risk and control decisions consistent, repeatable, and fast enough to guide what you scale – or stop.



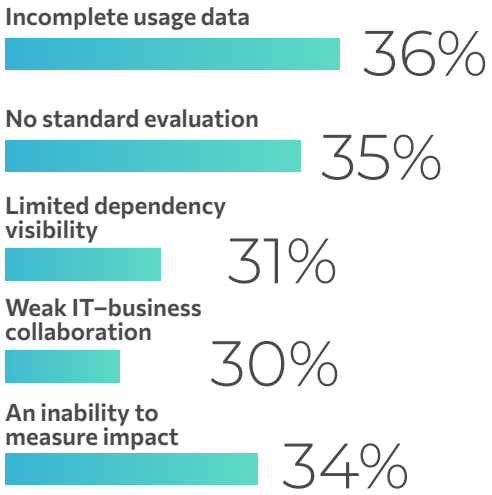
of CIOs believe their organization would benefit from automated risk scoring for AI assets and initiatives

3 Value Streams, Not Tech Streams

What to do: Use business architecture and value streams to translate technical work into customer outcomes and profit and loss impact. Require measurable KPIs (cost saved, revenue enabled, time-to-market), assign accountable owners, and standardize evaluation criteria so governance is proportionate, not one-size-fits-all.

Why? Because AI value breaks down when teams can't measure usage, see dependencies, or apply consistent criteria. A shared value-stream language aligns IT and the business, making ROI forecasts credible and governance proportionate.

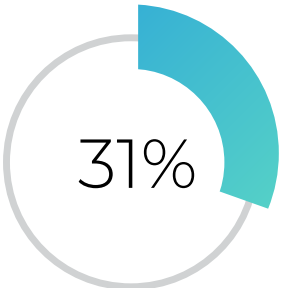
ROI forecasting is suffering from:



4 EA and Digital Twin of the Organization (DTO) for Accelerated Decision-Making

What to do: Empower EA teams with dedicated platforms and pilot digital twins of critical processes/value streams to test data quality, integration, and controls. Define the AI adoption decisions you want to accelerate, instrument high-quality metrics, and expand iteratively.

Why? Because you need a safe way to test decisions before scaling. Scenario testing in EA platforms and a DTO makes trade-offs visible early – so you can balance risk and reward with evidence, not assumptions.



of organizations lack a safe environment for scenario testing AI projects

Decision point for CIOs

CIOs can shift AI adoption from scattered experimentation to a controlled, high-return portfolio that enables them to:

- Achieve end-to-end visibility
- Enforce automated governance
- Standardize how the business defines value
- Validate decisions through simulation

Close the visibility gap.

Reduce AI risk, accelerate time to value, and demonstrate AI's strategic impact across the enterprise. Ready to get started?

Book a Demo

Methodology

This report is based on a survey of 500 CIOs from organizations with annual revenues of US $500M+ (or local equivalent) that have implemented at least one AI initiative. Fieldwork was carried out by Opinion Matters between January 9 and 20, 2026, drawing responses from CIOs in the UK, USA, Australia, and the UAE.

About Orbus Software

Orbus Software is a leading global provider of enterprise transformation solutions. It empowers organizations to optimize technology investments, create AI-driven value, drive effective business transformation, accelerate market innovation, and strengthen resilience and compliance.

The cloud-native OrbusInfinity platform provides a 'digital blueprint' of an organization, enabling leaders to make more informed business decisions, deliver on business outcomes, and innovate faster. Its unique, native AI-driven iPaaS – OrbusInfinity Flow – enables enterprise-wide data connectivity and workflow automation, empowering enterprise architects to eliminate silos, generate data-driven insights and drive faster, smarter transformation.

For more information, please visit: www.orbussoftware.com

References:

[1] S&P Market Intelligence. (2025, February 17). 2024 Global Trends in AI. Commissioned by WEKA. https://www.weka.io/resources/analyst-report/2024-global-trends-in-ai/

[2]Boston Consulting Group. (2024, October 24). AI Adoption in 2024: 74% of Companies Struggle to Achieve and Scale Value. BCG. Retrieved February 1, 2026, from https://www.bcg.com/press/24october2024-ai-adoption-in-2024-74-of-companies-struggle-to-achieve-and-scale-value

[3]Melbourne Business School. (2025, April 29). Global study reveals trust of AI remains a critical challenge. Retrieved February 1, 2026, from https://mbs.edu/news/global-study-reveals-trust-of-ai-remains-a-critical-challenge

[4]MINT | When AI Gets it Wrong: Why Marketers can't afford hallucinations. (n.d.). https://www.mint.ai/blog/when-ai-gets-it-wrong-why-marketers-cant-afford-hallucinations

[5]Cost of a data breach 2025 | IBM. (n.d.). https://www.ibm.com/reports/data-breach

orbussoftware.com

EBK0111/0226