CONNOR GROUP

BUSINESS GUIDE

The CFO's Reality Check on AI In SOX: What's Working Today and What to Pilot Next

A Connor Group Perspective for High-Growth Companies



Key Findings At-A-Glance

What works today

AI works best in structured, repeatable parts of SOX including controls built on system-generated data like logical access review. The biggest time savings today are in admin-heavy work like evidence requests, follow up, and review coordination. For simpler controls, some tools can help prepare a first draft (50%-75% complete in our testing), but not a finished, audit-ready file.

Where tools still fall short

AI cannot replace SOX testing, organizational context, or human judgment. Excel heavy controls remain a major challenge, especially where logic is spread across tabs or depends on reviewer judgment or experience. Tools are not yet strong enough to produce fully audit-defensible support on their own.

What to pilot next (near term)

Start with a few simple, lower-risk areas where the work is structured and evidence is consistent. Use AI to help organize support, prepare drafts, and make the process more efficient – not to replace reviewer judgment. Begin with small pilots now so you can expand what works in FY27 flexibly while driving change in the current audit cycle.

Why This Matters Now

SOX automation and AI technologies have entered a period of rapid evolution, but uneven maturity. CFOs at growth-stage companies face rising audit expectations, leaner teams, and increasingly complex system environments. While vendors promote visions of “autonomous compliance,” real-world performance, as of now, remains far narrower.

This guide cuts through the noise by summarizing:

- What SOX automation can reliably do today and where it falls short
- What is realistically automatable next and how to prepare for domain-aware AI
- How CFOs can adopt innovation without compromising audit defensibility

This is a technology-agnostic, operator-level view designed for leaders who want both efficiency and rigor.

Connor Group POV

SOX is not prescriptive - and that reality fundamentally limits "plug-and-play" AI.
Unlike rules-based compliance regimes, SOX allows management significant discretion in how controls are designed, documented, and executed. Two companies can address the same risk with materially different control structures, documentation conventions, and evidence expectations. That bespoke nature is a defining strength of SOX – but it is also the single biggest barrier to any AI immediately "knowing" how to execute testing out of the box.

In practice, high-quality SOX testing depends on perspective: an understanding of the intent of the control, how control owners actually perform their work, and how evidence is produced in the real world – not just how it is described in policies, procedures, or RCMs. Experienced testers build this understanding over time. Today's AI tools do not.

As a result, AI value compounds only in **mature, stable, and clearly documented environments,** where control intent, evidence patterns, and reviewer expectations are already well understood. In less mature programs – or where documentation is still evolving – AI output requires heavier human intervention, limiting near term ROI.

This dynamic is even more pronounced across **pre-IPO, 404(a), and early 404(b)** environments. At Connor Group, we intentionally apply a "right-sized" approach in these scenarios – using AI selectively for documentation support and workflow efficiency, while preserving human judgment to validate completeness, accuracy, and appropriateness. AI can accelerate execution, but it cannot yet replace the contextual judgment required to assess whether a control truly operates as intended.

Bottom line: AI greatly amplifies the importance of auditor experience and judgment. The strongest results come when AI is deployed as assistive execution within a human-led control framework, not as a substitute for understanding how a company actually runs its processes and manages risk holistically.

Why AI struggles with SOX judgment (a real world example)

Two control owners may both perform the same monthly account reconciliation using the same template. One annotates directly in Excel; the other attaches support via screenshots and emails. Both are correct, but only an experienced tester understands whether the evidence truly demonstrates the spirit of the control. AI can read the files, but it cannot yet infer that context without being trained on how this organization expects the control to be executed and reviewed.

For clients initiating their 2026 SOX programs, the guidance is clear:

- Cut through the hype and align expectations with what tools can defensibly do today – concentrated in a few structured, low-judgment areas.
- Adopt selectively and with discipline using a pilot/POC approach. SOX programs require incremental change to avoid audit delays, unexpected control issues, and downstream filing impacts.
- Keep a required human touchpoint in AI-enabled workstreams. A reviewer must validate completeness and accuracy (C&A) and exercise judgment before any AI output is treated as audit ready.
- Begin now to build the processes, data foundations, and internal skills that allow compounding ROI, with many organizations experiencing the clearest returns as capabilities mature and scale into 2027.

The Current Landscape: What Today's Tools Can (and Cannot) Do

SOX automation tools are not yet capable of completely replacing SOX testing or producing audit-ready workpapers. But they are effective at streamlining structured, repeatable tasks associated with controls testing attributes, especially those with system-generated evidence.

Understanding these boundaries is essential for responsible adoption.

Today's tools work best in stable SOX environments.

Companies are less likely to realize near-term value from automation when the SOX program is still being built, documentation is evolving, or significant remediation remains open. Before scaling automation, organizations should have reasonably mature control documentation, more consistent evidence sources, and a control environment that is not changing materially quarter to quarter. For year-one SOX programs or heavily remediating environments, the near-term priority should usually be stabilization first, followed by automation.

What Today's Tools Can Do Reliably

Automate Structured Evidence Collection

Tools are most effective when pulling predictable data from systems with mature APIs, such as:

- Identity providers (e.g., Okta, Azure AD)
- ERPs (e.g., NetSuite, SAP, Workday)
- Ticketing systems (e.g., Jira, ServiceNow)

These integrations reduce manual effort in evidence collection and review and can improve the accuracy and consistency of data capture, evidence retrieval, and metadata population; however they are not yet deep enough to support automated testing or continuous monitoring.

Standardize Workflows and Documentation

Beyond testing support, automation solutions can also improve how the SOX program is managed day to day, especially in evidence handling, reviewer workflow, and documentation execution. These tools consistently improve:

- Evidence requests and reviews
- Preparer and Reviewer assignments
- Workpaper formatting consistency
- Documentation structure and organization

This elevates quality and reduces variability across teams.

Support Basic Reconciliations and List-to-List Checks

Tools perform well in deterministic, rules-based tasks such as:

- Population matching across systems
- Field-level validations
- Basic completeness checks

These categories benefit from clear logic and limited judgment.

Generate Draft Workpapers (Assistive Only)

Based on internal testing and reviews, the frontier SOX AI tools deliver working papers for simple controls that are approximately 50%-75% complete at the first pass, with the primary savings coming from:

- Pre-population of workpaper templates
- Insertion of metadata against attributes and sample selections (e.g. invoice number, system name, user/access rights)
- Tick-marking attributes on documents
- Attaching evidence
- Organizing documentation
- Rationalizing attribute failures

These drafts, however, still require full human review, refinement, and judgment before audit-ready use. Further, even the best SOX AI tools available today are not capable of handling more complex controls.

What Today's Tools Cannot Do (Despite Marketing Claims)

Integrate Deeply Enough to Fully Automate SOX Testing

Current integrations remain limited. Common issues include:

- Incorrect or incomplete control context, driving metadata mapping errors (e.g., misclassified controls, incorrect financial statement tagging, or mismatched control frequency)
- Missing records needed for the completeness and accuracy of testing population
- Limited API field coverage
- CSV-based extraction disguised as automation

Integrations are helpful, but not sufficient for automated testing.

Interpret or Validate Complex Excel Workbooks

This is the single largest gap.

Tools cannot reliably:

- Understand workbook logic especially workbooks with multiple tabs
- Consistently interpret formulas or pivot tables correctly
- Trace dependencies across tabs
- Validate reviewer inputs
- Confirm workbook accuracy and completeness

Excel-based controls remain difficult to automate because much of the logic is not just formula-driven – it is in supporting tabs, screenshots, attachments, reviewer conventions, and implicit judgment that current tools cannot reliably interpret.

Provide Audit-Ready Annotation

Today's annotation features:

- Are not immutable
- Do not consistently tie control performer/reviewer comments/interactions to control attributes
- May annotate incorrect documents to satisfy the test attribute

Test attribute annotations remain a semi-manual, judgment-based task.

Produce Audit-Defensible Execution Trails

Audit-grade trails require:

- Step-by-step logs
- Inputs, outputs, and parameters
- Rationale for conclusions
- Full reproducibility

Some platforms provide AI audit trails, but none have been through auditor rigor, so we can't assert whether any meet PCAOB standards.

Evaluate Control Attributes or Appropriateness

While some capabilities are in development, tools are not yet able to reliably:

- Interpret the appropriateness of control design against applicable risks
- Auto-generate and determine relevant attributes
- Analyze precision (without an explicit matrix or thresholds)
- Assess evidence sufficiency against risks and design
- Conclude on operating effectiveness and rationale

Thus, the majority of testing remains a fundamentally human process.



Where Companies Can Realistically Pursue Value Today

Highest-Value, Lowest-Risk Areas

- Logical Access and User Access Reviews (UARs)
    - Population pulls (requires API)
    - Joiner/mover/leaver comparisons
    - Privilege anomaly detection
    - Review workflows.
- ITGC Evidence Pipelines (requires API)
    - Config exports
    - Access logs
    - System reports
- Business process controls with system-generated reports and or templated forms.
    - Contract and vendor PO-Invoice matching
    - Bank reconciliations
    - Equity and stock-based compensation reconciliations
- System-to-System Population Matching
- Initial Draft Workpaper Assembly
- Workflow Standardization and Documentation Quality



These areas produce the clearest, most audit-defensible value.

Moderate-Value Areas (With Oversight)

- Automated variance analysis
- Structured population completeness checks
- Annotation-assisted review
- Template-driven documentation

Helpful for efficiency, but not a substitute for testing automation or experienced judgment.

Do Not Pursue for Complete Automation Today

Although some tools are gaining traction in some categories, complete automation is not reliable, mature, or audit-acceptable for:

1. Change Management Controls

Due to population completeness challenges, approval linkage gaps, and inconsistent evidence or various documentation formats and timing.

2. Management Review Controls (MRCs)

Heavily dependent on human judgment, thresholds, and rationale evaluation.

3. Controls Requiring Qualitative or Contextual Evaluation

Examples: estimates, non-routine transactions, complex judgments.

4. Excel-Based Controls (Major Category)

Automation tools cannot reliably automate SOX testing of:

- Complex account reconciliations
- Close-process workbooks
- Complex accrual models
- Roll forwards
- Complex multi-tab workbooks
- Workbook-based JE processes

5. Processes with Unstructured or Inconsistent Evidence

Email approvals, screenshots, chat logs, and ad hoc processes remain semi-manual.

Five Common Misconceptions (and Why They Matter)

AI SOX automation comes with a lot of confident opinions. Separate the helpful from those that quietly create risk.

Misconception 1 – "AI can replace SOX testing."

AI can accelerate documentation but cannot assess appropriateness, precision, or sufficiency.

Misconception 2 – "End to end SOX automation exists."

While some tools provide AI audit trails, they have yet to be vetted by auditors. Further, no platform today can fully automate design testing, operating effectiveness, auditor acceptable evidence, or workpaper trails.

Misconception 3 – "If the tool produces output, it's audit ready."

Audit readiness requires traceability, rationale, evidence lineage, and reproducibility – capabilities tools lack and/or have not yet been vetted.

Misconception 4 – "All AI is the same."

Some vendors use basic OCR, others use general LLMs. Few incorporate domain specific SOX/audit logic.

Misconception 5 – "Automation reduces audit scrutiny."

If not deployed carefully, automation will increase scrutiny.

Why the Next 6–9 Months Will Mark a Shift

AI and automation capabilities will expand meaningfully over the next 6–9 months with targeted, domain-specific advances that strengthen documentation, organization, and evidence quality in the lower-risk, more structured areas of SOX.

Start now to preserve flexibility for FY27.

Embedding AI-enabled workflows during the planning phase is materially easier than introducing them mid-audit, because it enables intentional test design, stakeholder alignment (including auditors), team training, and validation of SOX impact before execution begins. Organizations that wait until mid-cycle may find that even "good" tools are hard to adopt without creating rework, disruption, or audit friction — limiting their ability to capture near-term benefits and delaying scale into FY27.

It is important to differentiate between:

- **Testing automation** (true execution of control tests) – *minimal advancement expected*
- **Diagnostics/impact analysis** (gap assessments and impact analysis using pass/fail/improvement signals tied to control outputs) – *emerging, but still assistive*
- **Performance support** (workflow, documentation, evidence alignment, attribute mapping) – *material advancement expected*

Areas Where We Expect Meaningful Advances

Meaningful Advances Expected

ITGC / ITAC / IPE

Reduces prep effort; conclusions still human.

- Normalize system-generated evidence
- Map documents to test attributes
- Improve annotations and traceability

Limits:

- Will not automate evaluations or conclusions.

Change Management & SDLC

Improved document review and preparation; limited automation.

- Normalize ticket metadata
- Link deployments to approvals
- Check completeness of evidence

Limits:

- Automation not expected due to fragmentation of ticketing patterns, deployment tools, and approval workflows.

Business Process Controls

Momentum in journal entry workflows and reconciliations leveraging system reports.

- Extract structured inputs
- Align supporting evidence
- Assist workbook review (limited)

Limits:

- Current progress is limited to simple controls with highly structured data.

Limited Advances, but Support Improves

Complex Excel-Based Controls

-Better evidence ingestion

- Evidence traceability and completeness reviews
- Improved workpaper drafts

Limits:

- Logic interpretation; multi-tab formulas; conclusion accuracy

Management Review Controls (MRCs)

-Capture reviewer rationale, including thresholds

- Standardize review workflow
- Improved evidence alignment

Limits:

- Precision analysis; assess reviewer rationale and exceptions

Judgment-Heavy or Complex Controls

-Evidence organization

- Workflow standardization
- Traceability

Limits:

- Automated evaluation; judgment automation (e.g., estimates)

Near-Term Roadmap of SOX Automation

Below is an estimated roadmap that accounts for both automatable and complex, Excel-based, and judgment-driven controls.

	0–12 Months (Emerging Reality)	12–24 Months (Acceleration Phase)	24+ Months (Transformational Potential)
Expected to advance	– Automated evidence extraction – Deeper integrations with ERPs and IDPs – Standardized workflows – AI-assisted variance analysis – Draft workpaper assembly – Improved annotation traceability – Evidence organization around complex controls (but not testing) – Better detection of missing evidence in reconciliations – Improved workbook metadata parsing (not logic) – Testing of reconciliations	– Domain-aware prompting (support, not testing) – Structured rationale-capture helpers for MRCs – Early workbook logic extraction – Continuous monitoring of structured IT controls – AI-assisted rationale drafting for reviewers	– Full reconciliation evaluation – True automation of MRCs
Not expected to change	– Limited automation of Excel formula-based controls – Improved automation or recommendations of MRCs – No judgment-based evaluation – No workbook logic interpretation	– Evaluation of MRC threshold assessment – Judgment-driven controls	– Threshold judgments – Complex accounting assessments

5 Actions for High-Growth Companies Navigating AI in SOX

Evaluate tools with real, validated data

Vendor demos are not reliable indicators of real-world performance.

Start with structured controls

Structured, systems-driven use cases are aligned with AI's current capabilities.

Pilot narrow, then expand

Start with limited pilots and scale only what works.

Maintain auditor alignment

Gain buy-in and acceptance from internal audit, external auditors, and IT early.

Build a future-ready foundation

Standardize evidence, data structures, and workflows now.



Near-Term Roadmap for Organizations Advancing AI in SOX

Phase	Timeframe	What to do	What "good" looks like
Pilot on structured controls	Next 90 days	Select 2–3 high-ROI, low-judgment areas (e.g., logical access, passwords, UARs, ITGC evidence pipelines, population pulls) and test with prior-year data.	Repeatable outputs; clear reviewer workflow; documented limitations plus audit alignment plan.
Expand performance support (not testing automation)	Next 6–9 months	Scale workflow: evidence ingestion/ normalization, attribute mapping, documentation traceability; keep conclusions human.	Faster prep/assembly; improved consistency; stronger traceability; upskilled team.
Scale what's proven into FY27	FY27 planning	Broaden to additional structured domains + more standardized documentation conventions; compound ROI as tools enhance domain-expertise and learn your taxonomy.	Wider adoption with stable audit defensibility; measurable cycle-time reduction without increased control/ audit risk.

Closing Perspective

SOX automation is advancing steadily, but unevenly. Structured, systems-based controls are entering a new era of efficiency, while complex, Excel-based, and judgment-heavy controls will continue to rely on human expertise for the foreseeable future.

The companies that win this transition will:

- Adopt early, but selectively
- Preserve judgment where it matters
- Build strong evidence foundations
- Position themselves for the next wave of domain-aware AI

This is modernization without risk, and meaningful progress without hype.





About Connor Group

Connor Group is built for breakthroughs.

We are a professional services firm focused on the most critical opportunities and challenges facing ambitious companies. Our teams lead in accounting, compliance, M&A, IPOs, and digital solutions - including automation and AI enablement. Trusted by more than 2,000 of the world's most innovative companies, we bring deep expertise, pragmatic execution, and uncompromising quality.

connorgp.com



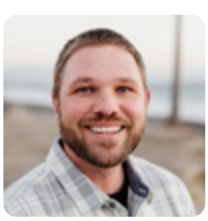
Contacts



Puneet Ishpujani

Partner | Transformation & Risk

Email: puneet.ishpujani@connorgp.com



Matt MacLachlan

Partner | Transformation & Risk

Email: matthew.macLachlan@connorgp.com



Nicholas Kim

Director | Transformation & Risk

Email: nicholas.kim@connorgp.com