

40% Faster Issue Resolution & 50% Lower TCO: Transforming Life Sciences AMS

How Brillio's AI-Led Framework Accelerates R&D,
Safeguards Compliance, and Drives Operational
Efficiency

brillio

The AMS Imperative for Life Sciences

In life sciences, every delay has consequences – whether it's a trial stalled by missing data, an audit derailed by incomplete documentation, or a drug launch slowed by a fragmented tech stack. As research environments grow more complex and regulatory expectations tighten, the pressure to reduce operational costs while maintaining control and compliance intensifies. Nearly 33% of industry leaders now cite cost optimization as a top priority, even as incident volumes and system complexities continue to rise across the clinical and manufacturing lifecycle.

Despite investments in AI and digital modernization, many organizations still rely on siloed applications and disconnected workflows. Observability is limited. Safety and compliance teams operate reactively, and business leaders often lack the real-time insights needed to prevent issues before they escalate.

Solving these challenges requires more than better tools – it requires a shift toward AI-led AMS: an intelligent, unified approach that connects research and regulatory systems, embeds real-time monitoring, and streamlines operations without compromising on rigor or traceability.

In an industry where data integrity and compliance can make or break a trial, life sciences organizations need an AMS solution that turns complexity into confidence.

Brillio's Value Proposition: Smarter AMS with Measurable Impact

Brillio's AMS model allows life sciences enterprises to modernize IT operations while maintaining compliance and scientific integrity. Our approach blends intelligent automation, modular integration, and role-specific insights to support both scale and regulatory precision, with:

Tool-Agnostic Architecture - Our platform integrates seamlessly with core systems like lab information management, clinical trial platforms, and regulatory submission tools, avoiding vendor lock-in and lowering total cost of ownership by up to 50%.

Integrated AI Engine - Trained on operational data from real-world life sciences environments, Brillio's AI engine delivers real-time anomaly detection, automated root cause analysis, and resolution, cutting issue resolution time by ~35%.

Persona-Based Intelligence - Dashboards and insights are tailored to lab managers, regulatory leads, QA teams, and R&D stakeholders, enabling proactive compliance management, faster decisions, and real-time visibility into process health.

Agentic AI Capabilities - GenAI-powered bots automate triage of documentation errors, resolve system deviations, flag trial anomalies, and execute SOP workflows, boosting productivity by up to 40% while maintaining audit readiness and traceability.



Our tool-agnostic,
AI-driven model
delivers measurable
ROI, balancing speed,
compliance, and cost
control across
research, clinical, and
manufacturing
operations.

Brillio's Capabilities: Purpose-Built for Life Sciences Integrity and Acceleration

Brillio's AI-led AMS framework empowers life sciences organizations to streamline operations without compromising on scientific precision or regulatory discipline. By integrating modular orchestration and real-time intelligence, powered by industry leading orchestration platforms with built-in catalogs, we bring together research, clinical, manufacturing, and regulatory ecosystems into a unified digital backbone that supports faster trials, safer therapies, and continuous compliance.

Our solution embeds automation and intelligence across the application lifecycle: enabling early detection of anomalies, automating documentation, and giving scientists and compliance teams real-time visibility into critical workflows. With native support for GxP-compliant environments and alignment with FDA and EMA standards, Brillio helps life sciences enterprises modernize with rigor, resilience, and confidence.

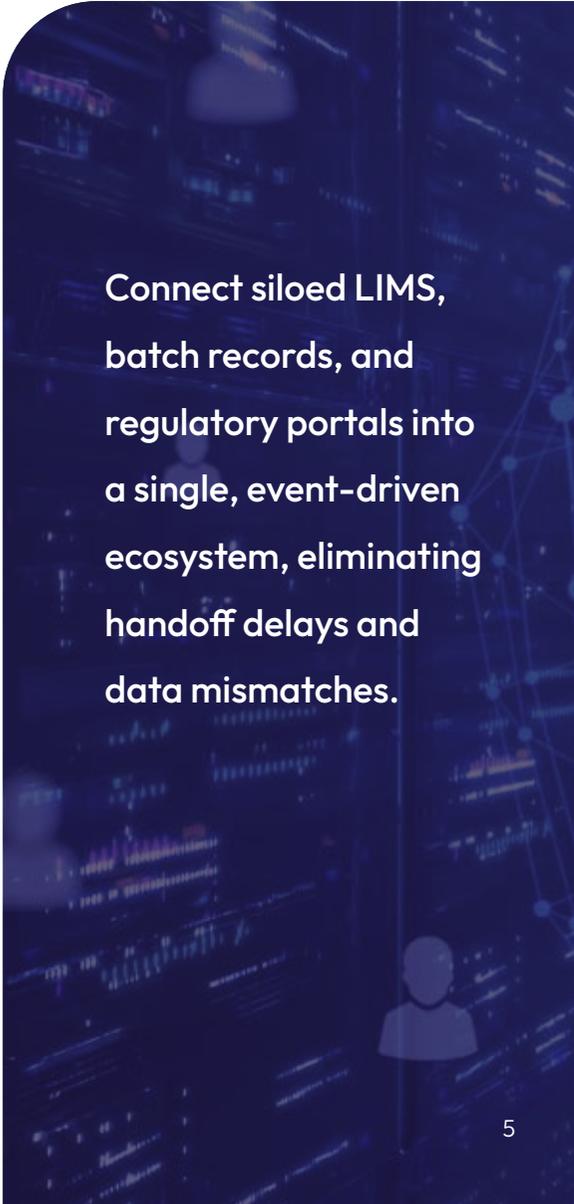
By embedding AI,
automation, and
regulatory intelligence
into every workflow,
Brillio transforms
fragmented systems
into a unified engine for
**faster, safer
innovation.**

Streamlined Integration Across Lab Systems, CROs, and Regulatory Bodies

Life sciences organizations rely on a web of highly specialized systems, from LIMS and clinical data repositories to CRO platforms and regulatory reporting tools. When these systems operate in silos, inefficiencies multiply, and compliance risks grow. Brillio eliminates these barriers by deploying a composable integration layer that connects structured research data, digital batch records, and trial documentation into a shared, event-driven architecture.

At the core of this integration is telemetry - continuous data streams that capture everything from assay performance and API latency to document handoff status. We use this telemetry to drive observability, not only to monitor these signals, but to correlate them across workflows and detect when something is trending toward failure, such as a data mismatch between lab and clinical systems or a lag in trial submission updates.

Brillio's orchestration backbone enables real-time remediation of these issues, with automated responses triggered when predefined patterns are recognized. This ensures smoother collaboration across stakeholders, faster validation cycles, and less time lost to system misalignment.



**Connect siloed LIMS,
batch records, and
regulatory portals into
a single, event-driven
ecosystem, eliminating
handoff delays and
data mismatches.**

Automated Safety Event Tracking and GenAI-Powered Adverse Event Insights

Timely detection and reporting of adverse events is non-negotiable in clinical trials and post-market surveillance. Brillio embeds agentic AI – autonomous, task-oriented bots – into trial management systems to actively monitor patient data, protocol deviations, and safety signals. These bots don't just detect anomalies, they take action: logging incidents, alerting safety officers, and initiating pre-approved workflows for documentation and triage.

Supported by GenAI models, Brillio's AMS platform can analyze narrative case data and structured fields simultaneously, summarizing key insights and surfacing similar historical events for rapid context. This enables faster decision-making across pharmacovigilance, compliance, and clinical operations, reducing the time between detection and action, and ensuring each event is resolved with both speed and traceability.

In high-volume trial phases, where manual review isn't scalable, this automation transforms how life sciences organizations handle safety data, reducing false positives, surfacing true risks faster, and enabling continuous oversight.

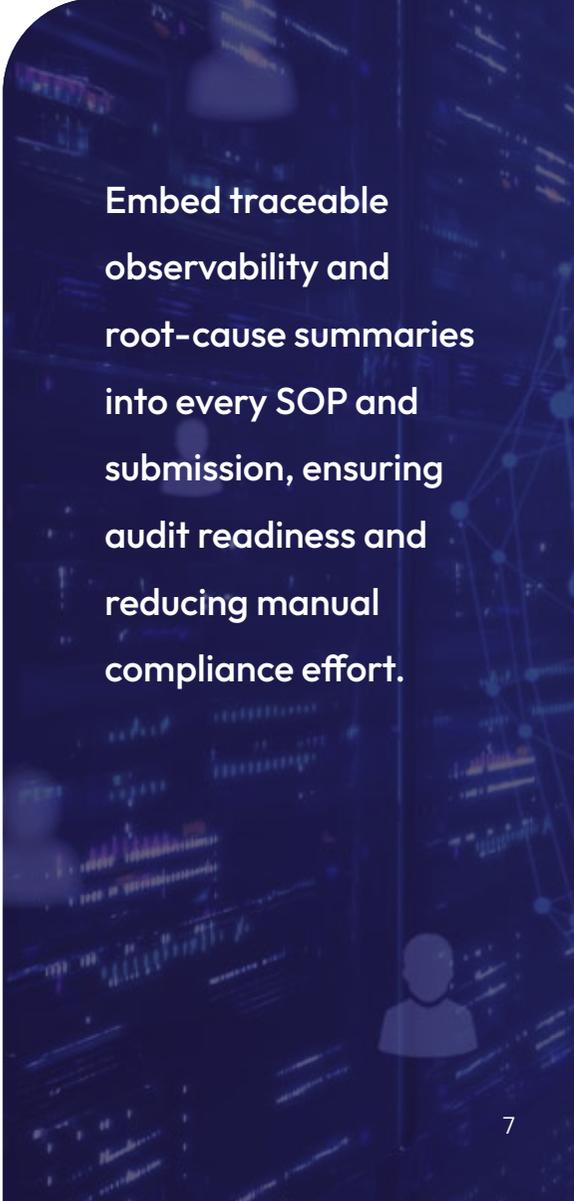
Deploy agentic AI and GenAI bots to spot, triage, and summarize adverse events in real-time, accelerating pharmacovigilance with audit-ready context.

Continuous Compliance with Life Sciences Regulatory Frameworks

Compliance is not just a checkpoint, it's a continuous state that must be proven across every workflow, system interaction, and data artifact. Brillio addresses this by embedding observability and traceability directly into the AMS foundation. Every workflow action - be it a document change, SOP update, or clinical data transfer - is logged, versioned, and mapped into a traceable knowledge graph that underpins real-time dashboards and audit-ready reporting.

As telemetry flows through the system, our AI agents scan for anomalies, like submission discrepancies, expired SOPs, or deviations from compliant procedures, and proactively alert relevant teams. Instead of surfacing raw error logs, Brillio contextualizes them with RCA summaries, highlighting root causes, affected stakeholders, and resolution paths.

Whether the organization is preparing for an FDA inspection, filing with the EMA, or managing global GxP compliance across multiple studies, this architecture ensures they operate with the control, clarity, and auditability required by the industry's most demanding standards.



Embed traceable observability and root-cause summaries into every SOP and submission, ensuring audit readiness and reducing manual compliance effort.

Unlocking Scalable Value Through AI-Led AMS

In life sciences, precision and compliance are non-negotiable, but in today's accelerated R&D landscape, they're no longer sufficient on their own. Gaining a competitive edge now depends on unifying fragmented systems, reducing operational friction, and scaling innovation without compromising data integrity or audit readiness.

Brillio's AI-led AMS framework delivers measurable value across research, clinical, and manufacturing workflows. By embedding intelligent automation and self-healing into lab systems, document pipelines, and trial environments, we reduce manual effort and free teams to focus on high-impact tasks.

Our tool-agnostic foundation integrates seamlessly with regulatory platforms, preserving existing investments while lowering compliance and maintenance costs. Telemetry from batch records, SOPs, and assay pipelines powers real-time observability, enabling early issue detection and fast, contextual resolution.

What organizations gain:

- **Up to 40%** boost in productivity through GenAI-powered automation
- **Up to 30%** reduction in operational costs by streamlining GxP-aligned workflows
- **35% faster** issue resolution with predictive triaging and root cause automation
- **Up to 50% lower** TCO through tool-agnostic integration with existing research and regulatory platforms
- **Continuous compliance** and audit readiness with built-in documentation intelligence
- **Real-time**, role-specific dashboards driving clarity across research, safety, and QA operations

From 40% productivity gains to 50% lower TCO, Brillio's AI-led AMS turns IT from a cost center into a strategic accelerator for compliant, scalable innovation.

ABOUT BRILLIO

Brillio is a digital technology services company that drives AI-first engineering and design-led experiences for global enterprises. Born digital in 2014, its consulting-led services span Customer Experience, Data & AI, Product Engineering, and Digital Infrastructure. With an industry-leading NPS of 71, Brillio accelerates time to market through its proprietary BrillioOne.ai platform, powered by AI-ready talent with deep domain expertise. Brillio is the official Digital Transformation Partner and the official Data and AI Services Provider of Atlassian Williams Racing. Brillio partners with leading technology providers including Microsoft, AWS, Google Cloud, Salesforce, Adobe, Databricks, and Snowflake and operates with 6,000+ “Brillians” across 15 global delivery centers. Consistently recognized as a Great Place to Work® since 2021, Brillio blends innovation, talent, and purpose to deliver measurable outcomes for clients and fulfilling careers for employees.



<https://www.brillio.com/>

Contact Us: info@brillio.com

