TECH mahindra

Transforming Life Sciences: From Molecule to Market

Orchestrating AI-led innovation across the life sciences value chain—accelerating insights, ensuring compliance, and delivering measurable impact

Scale at Speed™

Introduction

Advancing therapies from molecule to market demands precision, speed, and regulatory confidence—yet complexity across data, processes, and compliance often slows progress. Tech Mahindra addresses these challenges with AI-led, integrated solutions spanning clinical development, quality, manufacturing, regulatory, and post-market operations. By breaking down silos and embedding compliance into intelligent workflows, we enable a connected life sciences value chain powered by validated, agentic AI. The result is faster, insight-driven decisions, sustained compliance, and measurable outcomes—delivering AI the right way, from discovery to patient impact.

To enable connected, compliant, and insight driven operations across life sciences, Tech Mahindra brings together a suite of AI led solutions spanning the journey from discovery and development to market launch and post market surveillance.

Clinical Trial Operation Automation

Tech Mahindra delivers an agentic AI-powered clinical trial operations platform that automates execution from protocol authoring through site selection and patient readiness. Our solution generates ready-to-review draft protocols, aligns content with regulatory standards, and maintains full audit trails across reviews and approvals. Using specialized AI agents, we aggregate real-world data, competitive insights, site capabilities, and de-identified patient data to drive protocol feasibility, intelligent site selection, and automated patient pre-screening. By orchestrating sponsors, CROs, and sites through secure, automated workflows, we replace fragmented manual processes.

Benefits

- **Faster Trial Start-Up**
  Automate protocol drafting and alignment to significantly shorten development timelines and accelerate study initiation.

- **Smarter Site and Patient Selection**
  Enable data-driven site identification and patient screening to improve feasibility and enrollment outcomes.

- **Improved Quality and Accuracy**
  Combine AI-driven intelligence with human oversight to deliver precise, standardized, and high-quality clinical protocols.

Knowledge Graph & AI-Powered Chemistry Manufacturing Control Automation

The platform transforms chemistry, manufacturing, and controls by establishing a connected digital foundation built on contextualized knowledge graphs. It also unifies structured and unstructured data from MES, LIMS, ERP, quality systems, and paper batch records into a GxP-compliant, end-to-end batch genealogy. This knowledge-graph-driven architecture provides the contextual intelligence required for accurate analytics, digital twins, predictive quality insights, and continuous process verification. Integrated capabilities support automated batch review, root-cause investigations, regulatory reporting, and technology transfer.

Benefits

- Faster Process Optimization
  We simulate manufacturing scenarios virtually, enabling teams to test changes and optimize processes before execution on the shop floor.
- Accelerated Regulatory Submissions
  We deliver digitized batch records and structured analytics that strengthen CMC documentation and improve submission readiness.
- End-to-End Visibility
  We connect machines, processes, and data into a single, unified view across development, scale-up, and manufacturing.

Regulatory Intelligence

With the regulatory intelligence solution, we bring evolving global regulations with confidence and deliver real-time regulatory insights across end-to-end submission and registration management, supported by AI-driven analysis of regulatory updates, guidance, and policy changes. Our solution centralizes regulatory data and requirements into a single, actionable view, enabling proactive impact assessment and informed decision-making. Unlike static tracking tools, we continuously monitor regulatory changes, highlight risks early, and support filings, compliance planning, and audits, acting as a real-time regulatory radar that helps maintain compliance while accelerating approvals across markets.

Benefits

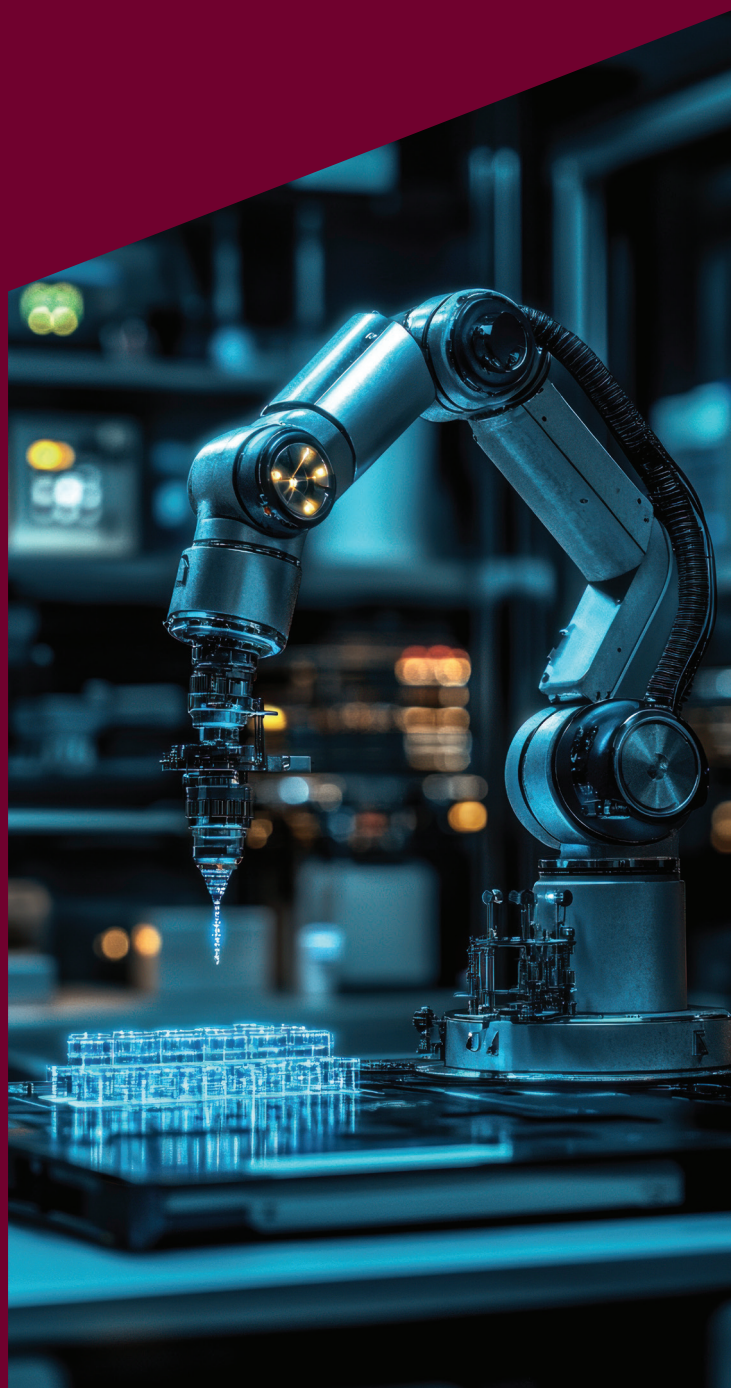
- **Proactive Compliance Readiness**
  We continuously track global regulatory changes, enabling teams to act early rather than react late.
- **Centralized Regulatory Visibility**
  We unify dispersed regulatory data, requirements, and guidance into a single, trusted source of truth.
- **Accelerated Submissions and Registrations**
  We support end-to-end submission planning to enable smoother and faster approvals across global markets.

AI-Powered Computerized System Validation Automation

With our AI-powered computerized system validation (CSV) solution, achieve faster compliance without compromising rigor. We deliver end-to-end, AI-led validation for using a multimodal system, an agentic AI framework that ingests requirements, SOPs, configurations, test data, and evidence. Our solution automates URS, FRS, risk assessments, IQ/OQ/PQ, and validation summary reports, while maintaining full traceability and audit trails aligned with GAMP® 5, Annex 11, and 21 CFR Part 11 and CSA. Unlike manual or tool-centric approaches, we enable risk-based validation, faster execution, and a continuous validated state—with a human in the loop for approvals.

Benefits

- **Faster Validation Cycles**
  We use agentic AI to automate documentation, testing, and evidence generation—significantly reducing validation timelines.
- **End-to-End Traceability and Audit Readiness**
  We maintain complete linkage across requirements, risks, tests, and evidence to ensure inspection-ready compliance.
- **Alignment with Global Standards**
  We design validation processes to meet GAMP® 5, EU Annex 11, and 21 CFR Part 11 expectations.



GLAMs- The Artwork and Labeling Solution

Global Life Sciences Artwork Management Solution (GLAMS ™) simplifies and controls labeling, packaging, and artwork management across the product lifecycle. We deliver a unified, compliant digital platform that brings together artwork authoring, workflow automation, version control, impact analysis, and global change management into a single system. By integrating with enterprise platforms and enabling automated approvals, GLAMS™ ensures accuracy, traceability, and regulatory compliance across markets.

Benefits

- **Faster Global Product Launch**
  We streamline artwork and labeling workflows to reduce cycle times and enable quicker market entry across regions.
- **Efficient Impact Analysis**
  We identify downstream impacts of labeling changes early, helping prevent compliance gaps and supply disruptions.
- **Scalable Across Markets and Portfolios**
  We support consistent labeling and artwork management across geographies, product lines, and regulatory landscapes.

Cold Chain Management

With our cold chain management solution, we safeguard the integrity of temperature-sensitive life sciences products from start to finish. We enable real-time monitoring and analytics to continuously track temperature, humidity, location, and batch genealogy across internal and external sites. Powered by connected sensors, intelligent alerts, and structured data capture, our solution proactively identifies excursions and supports rapid corrective action. Unlike reactive monitoring tools, we deliver predictive visibility and centralized control, acting as a digital command center that protects every shipment from manufacturing through distribution, ensuring product quality and patient safety.

Benefits

- Early Excursion Detection and Prevention
  We use intelligent alerts to enable rapid intervention, preventing product spoilage and quality loss.
- Improved Product Quality and Patient Safety
  We ensure optimal handling of temperature-sensitive products from manufacturing through distribution.
- End-to-end Shipment Visibility
  We provide real-time tracking of temperature, humidity, location, and batch genealogy across the supply chain.

Advanced HCP Targeting & Engagement Intelligence

The HCP and patient targeting solution enables highly personalized, data-driven engagement by combining dynamic targeting, micro-segmentation, content personalization, and channel optimization within a modular machine-learning framework. It identifies high-value HCPs and patient cohorts using predictive models, refines them through micro-segmentation to capture nuanced behavioral and clinical differences, and dynamically aligns the right content to the right segment. The solution also determines the most effective engagement channel and timing, ensuring relevance across touchpoints. It continuously learns from interaction data and feedback loops, much like a smart recommendation engine, delivering adaptive, scalable, and measurable engagement that improves relevance, response rates, and overall outcomes across life sciences commercial and medical programs.

Benefits

- Enhanced HCP Segmentation Accuracy
  We enrich HCP segmentation by combining quantitative and qualitative data, enabling more precise and meaningful categorization.
- Data-Driven Engagement Decisions
  We apply weighted factors, scenario planning, and composite scoring to improve targeting accuracy and recommendation quality.
- Optimized HCP Engagement Strategies
  We enable tailored engagement approaches that sustain existing relationships and help recover disrupted HCP interactions.

Post Market Surveillance

With the post-market surveillance (PMS) system, we enable compliant complaint management and proactive safety signal detection at scale. Our solution applies agentic AI and advanced analytics to analyze unstructured complaint narratives, emails, and images, automatically perform IMDRF-compliant coding, and consolidate multi-source safety data into a unified signal intelligence layer. We enable AI-driven detection of emerging safety trends, automated signal triage, and risk-based prioritization to identify issues early and reduce false positives. Unlike manual, fragmented approaches, we deliver faster signal assessment, audit-ready traceability, and on-time regulatory reporting, supporting stronger compliance, earlier risk mitigation, and improved patient safety across the product lifecycle.

Benefits

- Continuous Patient Safety Monitoring
  We enable ongoing tracking of product performance and safety aftermarket launch to maintain sustained compliance and patient protection.
- Early Risk and Signal Detection
  We proactively identify emerging issues, enabling timely corrective and preventive actions.
- Improved Decision-making
  We deliver consolidated analytics and insights to support faster, evidence-based safety decisions.

Life Sciences, Accelerated with AI

Tech Mahindra addresses the real-world challenges associated with the life sciences industry with an AI-led, end-to-end portfolio spanning clinical automation, CMC digital twins, regulatory intelligence, agentic CSV, GLAMS™, cold-chain management, pharmacovigilance, CRM and medical affairs, and post-market surveillance. By embedding intelligence, automation, and compliance into connected workflows, we help remove silos, reduce risk, and accelerate outcomes. Backed by deep domain expertise and validated, production-ready platforms, Tech Mahindra enables life sciences organizations to operate with confidence, from discovery through real-world patient impact.

TechM Advantage

We deliver production-grade AI and agentic AI platforms engineered to perform in complex, highly regulated environments—going beyond point solutions to enable enterprise-wide transformation. By embedding intelligence, automation, and compliance across clinical, CMC, regulatory, manufacturing, and post-market operations, we help our partners anticipate risk, accelerate decision-making, and scale with confidence. Backed by validated platforms, owned IP, and a proven ability to operationalize AI end-to-end, Tech Mahindra serves as a trusted, long-term partner—driving sustained innovation, measurable outcomes, and competitive differentiation across the life sciences value chain.

About **Tech Mahindra**

Tech Mahindra (NSE: TECHM) offers technology consulting and digital solutions to global enterprises across industries, enabling transformative scale at unparalleled speed. With 147,000+ professionals across 90+ countries helping 1100+ clients, Tech Mahindra provides a full spectrum of services including consulting, information technology, enterprise applications, business process services, engineering services, network services, customer experience & design, AI & analytics, and cloud & infrastructure services. It is the first Indian company in the world to have been awarded the Sustainable Markets Initiative's Terra Carta Seal, which recognizes global companies that are actively leading the charge to create a climate and nature-positive future. Tech Mahindra is part of the Mahindra Group, founded in 1945, one of the largest and most admired multinational federation of companies. For more information on how TechM can partner with you to meet your Scale at Speed™ imperatives, please visit https://www.techmahindra.com/.

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