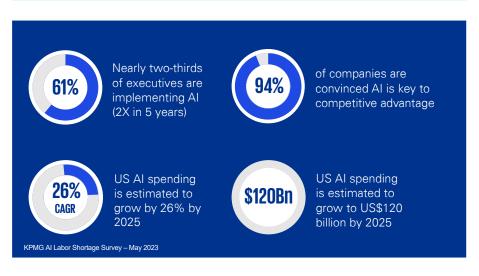




Generative artificial intelligence (GenAl) adoption is a survival imperative. Life sciences leaders play a critical role evaluating the impact of GenAl on the enterprise strategy, business model, operations, and corporate functions.

GenAl can accelerate growth and innovation improving patient outcomes.

With the ever-changing regulatory environment, **speed to market, compliance, and cost effectiveness** continue to be top priorities for all life sciences companies. GenAl technology has the potential to transform the entire value chain from drug discovery to launch and commercialization. GenAl can help deliver significant productivity gains, streamline operations, cut operational cost, and speed up the delivery of life-saving treatments.





GenAl use cases exist to augment the value chain across discovery research, preclinical development, clinical trials, and commercialization

Drug discovery/ research

Preclinical

Clinical development

Regulatory submission

Launch and commercialization



Broaden the efforts to identify and design new targets and molecules

- Interpretation of spatial biology data
- Al-enabled highcontent screening image analysis
- Target identification
- Target validation
- · Lead identification
- Lead optimization



Expedite molecular testing to identify the most promising candidates

- In silico trials
- In vitro safety assessment
- In vivo safety assessment
- Pharmacokinetic studies
- Pharmacodynamic studies
- Toxicokinetic studies
- Formulation development



Optimize trial design and expedite execution

- Virtual/decentralized trials
- Digital biomarkers
- Synthetic trials
- Al for patient stratification, recruitment, and site selection
- SOP management
- Protocol development
- Participant recruitment and engagement



Assist with trial write-up and regulatory submission

- Regulatory dossier preparation
- Submit new drug application
- Regulatory review process
- Regulatory approval decision



Analyze and monitor the progress of new launches

- Manufacturing scale-up and validation
- Pricing and reimbursement negotiations
- Marketing and promotion
- Distribution and logistics
- Postlaunch activities

Drive efficiency

Improve quality

Provide personal, contextually relevant information

Drive new insights

GenAl creates new opportunities for life sciences organizations to unlock value

Opportunities... ... across functions



Commercial

Ensuring the right patients receive the right drugs is critical, and requires tech-enabled payment processing, authorization, and contracting, particularly as advanced therapeutics increase in utilization:

- Pharma pricing, chargebacks, rebates
- Fraud detection
- Medical writing/HEOR



Manufacturing and supply chain

Optimize the manufacturing and supply chain processes to help drive predictive insights, increased efficiencies, reduced costs and improved quality control:

- Supply chain risk monitoring
- Demand forecasting and transportation optimization
- Supplier relationship management



R&D, safety, and regulatory

Monitor and analyze regulatory requirements, keep track of changes in regulations, and ensure organizations stay compliant. Also assist in preparing high-quality regulatory submissions and manage correspondence with regulatory authorities:

- SOP/Work procedures consolidation
- Clinical trial design/execution
- Deviations, complaints, and CAPA dispositioning



Corporate functions

Leverage data-driven insights and automation to help improve accuracy, speed, and costeffectiveness across corporate functions like Finance, Procurement, Human Resources, Information Technology and Legal:

- Finance optimization and intelligent forecasting
- Automated sourcing, contract ingestion and risk analysis
- Workforce reshaping

KPMG creates significant value for companies by leveraging traditional and generative Al

Commercial



Coupon fraud detection

Client issue: The client experienced instances of pharmacy fraud in coupon program for large biopharma company.

KPMG response: KPMG built a data-driven, intelligent Domain Engine, testing more than 60 hypotheses on potential fraud using both machine learning and domain knowledge.

Value generated:

Loss avoidance

Recovered funds

Blocked pharmacies

Strategy



Growth and fundraising strategy

Client Issue: Client, a real-world data company, needed KPMG experience to develop investor presentation materials to secure seed-round funding for its GenAl-powered data models.

KPMG Response: KPMG built an investor teaser presentation, investor summary packet, conducted primary and secondary research to drive go-to-market strategy, and developed a fundraising pitch packet to demonstrate market gap and customer demand.

Value generated:

- Summary of market opportunity
- Client value proposition
- CIM presentation with market landscape
- Strategic recommendation on go-to-market plan

Regulatory



Medical device label automation

Client issue: Client sought to address the time-sensitive, hightouch, high-error rate process of product label generation, review, and editing.

KPMG response: Developed a pilot to build a series of models leveraging GenAl to consume product design data and generate labels. Developed a business case and implementation roadmap to drive to production.

Value generated:

Increase in FTE efficiency

Labeling lead time reductions

Translation time reductions

GenAl output accuracy

30–60% Escalation, NC, CAPA and stop shipment avoidance

Corporate functions



Functional operational efficiency

Client issue: Client sought to do a competitive analysis for investor relations and market intelligence teams.

KPMG response: Developed GenAl solution to review data sources such as earnings call transcripts, peer investor reports, SEC fillings, press releases, and current financial information to extract, quantify, and output insights in the form of reports and dashboards.

Value generated:

- Less time on manual information extractions; focus on added value analyses
- Relevant and accurate insights
- Scalable solution for other document types and use cases

Contact us



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