OpenText AI for life sciences

Unlock innovation and efficiency throughout the drug development value chain

Benefits

- Speed document retrieval across integrated repositories
- Reduce compliance risks during transition periods
- Cut information management costs through consolidation
- Accelerate drug pipeline integration

Generative artificial intelligence (GenAI) is helping drive technological transformation in the pharmaceutical industry. Beyond the positive impact on drug discovery, GenAI can play a pivotal role in equipping organizations to boost innovation, increase operational agility, and gain new visibility into manufacturing processes.

Navigating the AI revolution in pharmaceutical manufacturing

The pharmaceutical industry faces mounting pressures to accelerate time-to-market while maintaining stringent quality standards and regulatory compliance. Traditional manufacturing processes often operate with limited visibility into real-time conditions, resulting in quality deviations, production inefficiencies, and compliance challenges. Batch failures can cost companies millions in lost product and investigation time, while regulatory remediation diverts resources from innovation. Meanwhile, experienced manufacturing talent is becoming increasingly scarce, creating knowledge gaps that impact operational excellence.

Related services

Implementation strategy

- Our pharmaceutical manufacturing experts help assess your current state, identify high-value AI applications, and develop phased implementation plans aligned with your business goals.

Data integration services

- Specialized teams connect your manufacturing systems, historian databases, batch records, and quality systems to create the comprehensive data foundation essential for GenAI success.

Solution configuration

- Our technical specialists configure and validate GenAI models specifically for your manufacturing processes, equipment, and compliance requirements.

Change management and training

- Customized programs ensure smooth adoption across manufacturing teams, with role-specific training that accelerates time-to-value and builds internal AI competency.

Managed AI services

- Ongoing support including model maintenance, performance monitoring, and continuous improvement to ensure your GenAI manufacturing solutions evolve with your business needs.

As competition intensifies and margins tighten, pharmaceutical manufacturers must find new ways to optimize production processes, predict potential issues before they occur, and leverage institutional knowledge more effectively. Generative AI presents a transformative opportunity to address these challenges, but implementing these technologies requires strategic approaches that align with the industry's unique regulatory requirements and safety considerations.

Transforming data into manufacturing intelligence

By connecting information from batch records, equipment logs, and production history, GenAI creates models that predict problems before they happen. These systems learn from each batch, finding patterns that humans miss and suggesting actions to improve processes. Manufacturing teams can see which factors affect product quality, allowing them to step in early. This reduces batch failures and cuts investigation time when problems do occur.

Accelerating knowledge transfer across manufacturing operations

As skilled manufacturing workers become harder to find, generative AI helps pass knowledge between generations. These systems capture expertise from senior staff by studying how they make decisions and solve problems. New workers get guidance based on this knowledge, which helps them learn faster and make fewer mistakes. Companies using these systems report faster training for complex jobs and fewer operator mistakes—preserving valuable knowledge even as workers change.

Ensuring compliance while driving innovation

GenAI helps drug companies follow strict rules while still improving their processes. By studying successful batches and regulatory filings, these systems suggest improvements that increase efficiency while staying within approved limits. Quality teams use AI to check compliance automatically, which is faster and catches more potential issues. This lets manufacturers make improvements confidently, knowing they'll stay within regulatory boundaries.

Creating agile, responsive production environments

GenAI also makes pharmaceutical manufacturing more flexible and responsive to changing conditions. When supply problems, material differences, or capacity issues arise, AI systems can model different solutions and recommend the best one. This flexibility helps manufacturers reduce equipment changeover times, use capacity more efficiently, and better respond to market demands. Companies gain an advantage through production systems that continuously improve while maintaining pharmaceutical quality standards.

Powering the future of pharmaceutical manufacturing

Generative AI represents a transformative opportunity for pharmaceutical manufacturers seeking to enhance productivity, quality, and compliance in an increasingly competitive landscape. By converting raw manufacturing data into actionable intelligence, transferring critical knowledge between workers, balancing compliance with innovation, and creating more responsive production environments, these technologies deliver measurable improvements across key performance indicators.

Revolutionizing manufacturing intelligence: Pharma manufacturer success story

A leading global pharmaceutical manufacturer implemented OpenText's GenAI solution across three vaccine production facilities struggling with batch consistency issues and knowledge transfer challenges.

Within six months, the company:

- Reduced batch investigations
- Accelerated deviation resolution time
- Saved costs due to fewer quality events

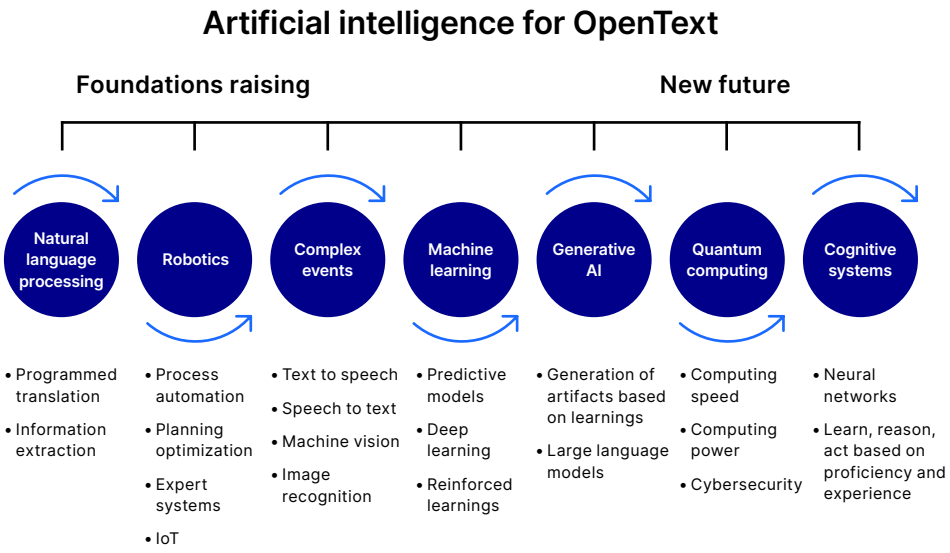
The platform's predictive maintenance capabilities have also extended equipment lifecycles, with unplanned downtime reduced by 41% across critical assets.

"OpenText's GenAI platform transformed how we approach manufacturing intelligence. Our operators now have real-time, contextual guidance based on decades of institutional knowledge, while our quality teams can predict potential issues before they impact production. The ROI has exceeded our expectations."

James Chen
VP of Manufacturing Excellence

OpenText's pharmaceutical-specific GenAI solutions provide unique advantages through purpose-built models trained on industry data that understand the regulatory context and manufacturing complexities unique to drug production. Our secure, GxP-compliant platform integrates seamlessly with existing manufacturing systems while offering the validation documentation required for regulated environments.

With decades of experience serving life sciences companies and a deep understanding of pharmaceutical manufacturing workflows, OpenText delivers not just technology, but a strategic partnership that accelerates AI adoption while managing implementation risks. By choosing OpenText's GenAI solutions, manufacturers gain both immediate operational improvements and a sustainable platform for continuous manufacturing excellence in an AI-powered future.



The OpenText approach to artifical intelligence

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