

How Leading Pharma
Companies Use

AI to Cut Submission Times by 3x

A strategic guide on how pharmaceutical leaders are
achieving breakthrough submission speeds through
AI-powered regulatory strategies

A Submission Revolution in Pharma

The pharmaceutical industry is shifting fast. While many companies still face 20+ week filing timelines, leaders using AI-powered submissions are filing in just 8–12 weeks after database lock.

McKinsey reports these top performers are achieving 3x faster submissions than the 2020 average unlocking up to \$180M in NPV for a \$1B asset.

The key isn't just adopting AI but embedding regulatory-grade compliance from the start. With the FDA's 2025 AI Credibility Guidance raising the bar on transparency and explainability, the race for competitive advantage is on.



The AI Acceleration Revolution

The pharma landscape is shifting fast

\$2.3B invested by top 20 pharma in 2024 but only **31%** saw measurable ROI

2

78% of AI pilots stall due to compliance and integration hurdles

18-month delays from pilot success to regulatory ready use remain common

3

4

63% of executives cite regulatory uncertainty as the top barrier

Leaders are now aiming for sub **8-week** submissions setting a new benchmark

5

In short: the race is on only those with compliant scalable AI will win

Core Pain Points Holding Pharma Back

Despite heavy AI investment, four challenges keep most companies stuck

Compliance Complexity

Fast tools lack audit trails; compliant ones slow



Scalability Issues

Point solutions create silos and inconsistent methods. timelines.



Regulatory Setbacks

Non-compliant AI can trigger FDA delays of 6–12 months.



Lack of Traceability

P“Black box” outputs don’t meet evidence-based standards.



Why It Matters More Than Ever

Pharma leaders who overcome these challenges gain faster approvals, efficient trials, and stronger market access while others risk falling behind. The question isn't if AI should be used in submissions, but how quickly it can be implemented with compliance built in. The winners won't just file faster they'll reshape pharma innovation.



Begin Your 15-Day

Knolens^{Trial}

Join 200+ life sciences organizations
already leveraging regulatory-grade
AI for competitive advantage

The AI Implementation Paradox won't resolve itself. The organizations that act decisively today will define the competitive landscape of tomorrow. Start your journey toward regulatory-grade AI excellence with Knolens.



Pienomial develops regulatory grade AI solutions for life sciences organizations. Our Knolens platform serves 200+ pharmaceutical, biotech and medical device companies worldwide, enabling faster more compliant decision-making across the drug development lifecycle.

