Navigate Pharma Manufacturing Challenges with an Integrated Digital Strategy
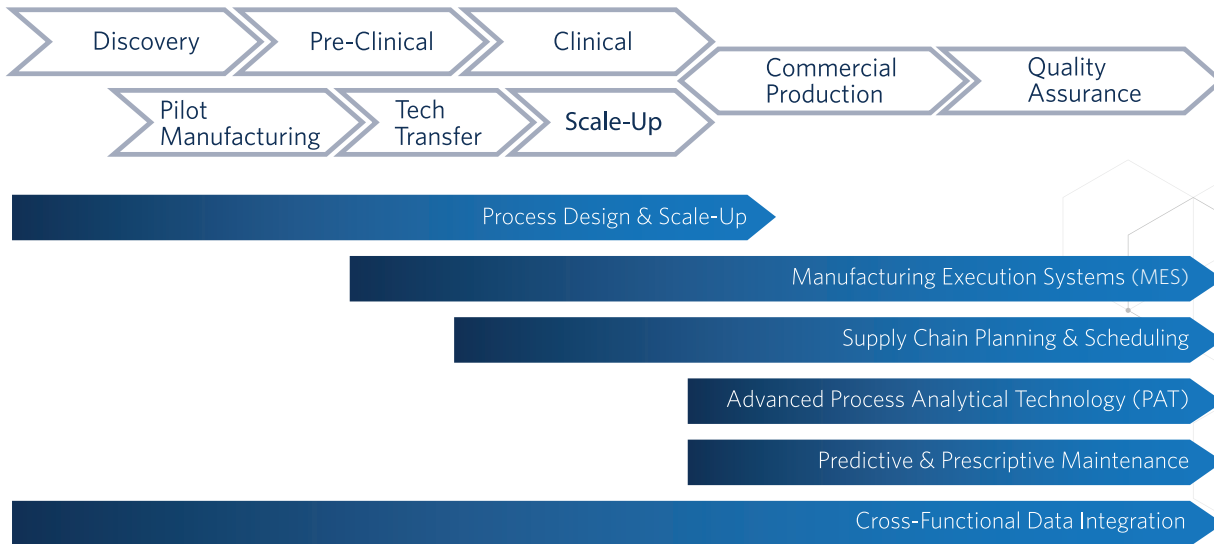
Boost Efficiency and Productivity. Improve Access to Medicine.

Discovery → Pre-Clinical → Clinical → Commercial Production → Quality Assurance

Pilot Manufacturing → Tech Transfer → Scale-Up

- Process Design & Scale-Up
- Manufacturing Execution Systems (MES)
- Supply Chain Planning & Scheduling
- Advanced Process Analytical Technology (PAT)
- Predictive & Prescriptive Maintenance
- Cross-Functional Data Integration

The need for greater operational agility and faster time to market continue to challenge pharmaceutical manufacturers. More and more companies are embracing, and accelerating, an integrated digitalization strategy to boost efficiency and productivity, and ultimately improve patient access to medicine.

AspenTech provides a breadth of AI-driven, compliance-ready software solutions across the product life cycle to give companies the resources they need to meet today's demands and guide them on their Pharma 4.0 journey. While powerful on their own, working together, these digital technologies share industrial data to maximize value and provide unique insights, leading to exponential improvements in decision-making, efficiency and productivity.

Backed by
40 Years of
Innovation and Expertise

To advance your digitalization journey and accelerate development times, visit aspentech.com/pharma.

Six Industry Challenges and the AspenTech Solutions

1 Inaccessible Industrial Data, Lack of Data-Driven Decisions

Cross-Functional Data Integration

Bridge systems data securely from plant to cloud and back with enterprise data management.

Results
- Reduce data integration costs and unlock business potential with all production data layers on one platform

2 Process Inconsistencies, Documentation Errors

Manufacturing Execution Systems (MES)

Enable efficient and consistent manufacturing processes with digitally guided execution, electronic batch records and track and trace.

Results
- Reduce cross-checking hours by 52%
- Decrease batch review deviations by 14%

3 Complex Supply Chains, Market Disruptions

Supply Chain Planning & Scheduling

Proactively manage supply chain disruptions to achieve resiliency with high fidelity schedules, real-time collaboration and an optimized network.

Results
- Reduce rescheduling time up to 45% compared to conventional methods

4 Failed Batches, Decreased Profit Margins

Advanced Process Analytical Technology (PAT)

Monitor and predict product and process quality to reduce batch cycle time, minimize process variability and enable real-time release testing.

Results
- Save $500K USD for every failed batch avoided
- Reduce cost of goods sold by 25%

5 Low Equipment Reliability, High Maintenance Spend

Predictive & Prescriptive Maintenance

Use AI/ML powered analytics to avoid equipment downtime with earlier alerts and prescriptive guidance for impending equipment failure.

Results
- Receive up to 35-day advance warning of impending equipment failure
- Reduce lifecycle maintenance costs by 50%

6 Slow Commercialization of New Medicines

Process Design & Scale-Up

Design for manufacturability and shorten development times with process simulation.

Results
- Reduce time for process scale-up and accelerate technology transfer

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