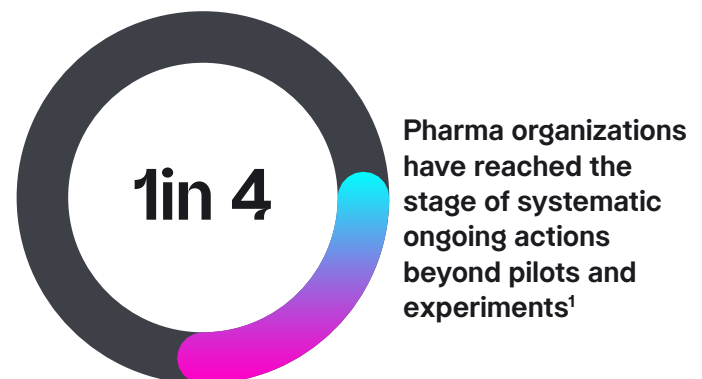




Putting Pharma 4.0 into practice

How Octave supports operational discipline, OT security and plant-wide intelligence in european pharmaceutical manufacturing

The challenge: Transitioning from Pharma 4.0 experiments to broad adoption



In many respects, Pharma 4.0 helps address key challenges European pharmaceutical manufacturers face: rising input costs, new compliance obligations and the greater need for capital efficiency amid patent cliffs.

However, two decades of digital transformation initiatives, decentralized decision-making and acquisitions have left most large sites with fragmented systems that were never designed to talk to each other.

Too siloed, too late: Pharma's disconnection challenge by the numbers

Two studies conducted by Octave^{2,3} among pharma executives found that:

58% experience poor integration between their operational systems

62% Still report frequent use of paper-based documents

64% cite unplanned production downtime as a strong or severe business impact

74% report delayed or out-of-date information as a key contributor to their operational challenges

Behind each of those figures is a structural problem: data that exists but is not connected, procedures that are documented but not enforced and threats that are identified but not prioritized.

Five imperatives for effective implementation – and how octave helps you meet them.

Pharmaceutical executives list five key expectations for Pharma 4.0 implementations. Meeting these expectations is key to ensuring projects move beyond the pilot stage.

Here's how Octave's portfolio offers proven solutions to these pressures:

Expectation	Evidence	Solution
Support manufacturing flexibility	95% of pharma executives cite it as a top-5 objective for technology investment ⁴	Octave Tempo Operations Management speeds up response to changing production demands by digitizing shift-to-shift operations, work instructions, and operational activities in a configurable platform InConcert connects engineering, operations and maintenance in a single SaaS platform, enabling better access to plant information for faster reconfiguration as product portfolios change.
Strengthen audit readiness	80% of pharma executives cite audit readiness as a high or critical priority. ²	Octave Attune EAM helps maintain controlled, traceable electronic records around GMP assets and maintenance execution, including key elements commonly needed for FDA and other regulator inspections
	95% of executives cite "improving quality assurance" as a top-5 investment priority ⁴	Octave Reliance Life Sciences Compliance targets this requirement on the quality management side: unifying regulatory submission workflows, improving traceability and helping manufacturers respond to field issues across FDA, ISO 9001, ISO 13485 and other frameworks globally.
Deliver efficiency and productivity gains	66% of executives see reduced downtime and extended equipment lifespan as a "large" or "transformative" benefit technology can bring ²	Octave Attune EAM supports pharma manufacturing by giving plants a single system of record for GMP-critical assets and maintenance execution, with controls that help sustain uptime, compliance and traceability. Octave Attune APM helps extend asset life and reduce unplanned downtime, protecting production capacity and the revenue it generates over time.
Improving the cybersecurity posture	79% of executives see security measure implementation to protect sensitive information from cyberthreats and unauthorized access as a priority area in information management ²	Octave Cyber Integrity protects OT/ICS environments that run facilities and utilities (including DCS, PLCs, SIS and other control system endpoints) through OT asset inventory and vulnerability risk management, patch management workflows, configuration integrity and change detection and backup and restore readiness

In practice

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Illumina and Octave reliance:

Illumina used Octave Reliance to help fortify supplier relationships, aligning quality processes and collaboration across its supplier ecosystem. This story is a good example of how Reliance supports supplier-facing quality workflows in a regulated, high-change environment.



NTT data: a life sciences organization's journey from Maximo to Octave Attune EAM:

A life sciences organization's journey from Maximo to Octave Attune EAM: A UK-based life sciences organisation facing end-of-support for its IBM Maximo system selected Octave Attune EAM in SaaS, delivered by NTT DATA Business Solutions, to reduce risk while maintaining regulatory compliance.

Sources

1. ['The 7th ISPE Pharma 4.0™ Survey: Digital Transformation,' Pharmaceutical Engineering, 2024](#)
2. ['Transform Pharmaceutical Manufacturing and Overcome Hurdles With Digital Innovation', Forrester Opportunity Snapshot commissioned by Octave, 2025](#)
3. ['Business performance and compliance in the pharma sector', Octave, 2025](#)
4. ['ISPE Global Pharmaceutical Innovation Survey Findings: A Review,' ISPE, 2024](#)

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About Octave

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property, and assets— for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency, and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.

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