

PHARMACEUTICALS

Multi-plant inventory reallocation for a global pharma manufacturer

Stock-outs at one plant while another sits on surplus, coordinated by email and spreadsheets. Wexa built a working inventory console that detects shortages, finds the nearest surplus and routes a transfer for approval.

Weeks

to a working end-to-end demo

3

regions modelled: US, India, Ireland

100%

of transfers with timestamped approvals for GMP audit

CLIENT

Global generic and specialty pharma manufacturer

REGION

US / India / Ireland

WHEN

2025

ENGAGEMENT

Solution build

WEXA COMPONENTS

**Inventory agents · process flows · tables
· ERP/IMS integration design**

The challenge

- Manual monthly forecasting across many sites and SKUs
- Shortages at one site, surplus at another
- Email and spreadsheet coordination
- GMP audit-trail requirements

What Wexa built

- ✓ Consumption management and automated shortage handling
- ✓ Nearest-site surplus check, transfer quantity calculation and stock-transfer requests
- ✓ Approve / reject flows with escalation to the distribution center
- ✓ Status indicators (in range, low, critical) and a chat interface
- ✓ Integration design for ERP, inventory and batch-production systems; on-prem or dedicated cloud

How it runs on Wexa

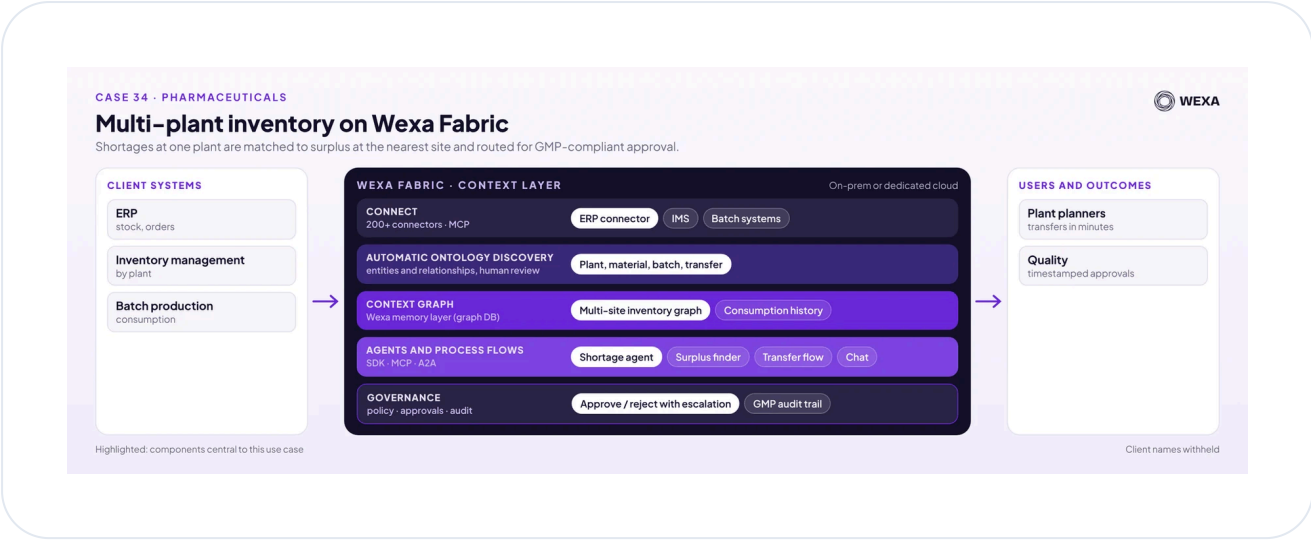


FIGURE How this use case runs on Wexa: client systems connected, ontology discovered, context graph in the Wexa memory layer, agents and process flows, and governance. Highlighted components are central to this use case.

Solution workflow

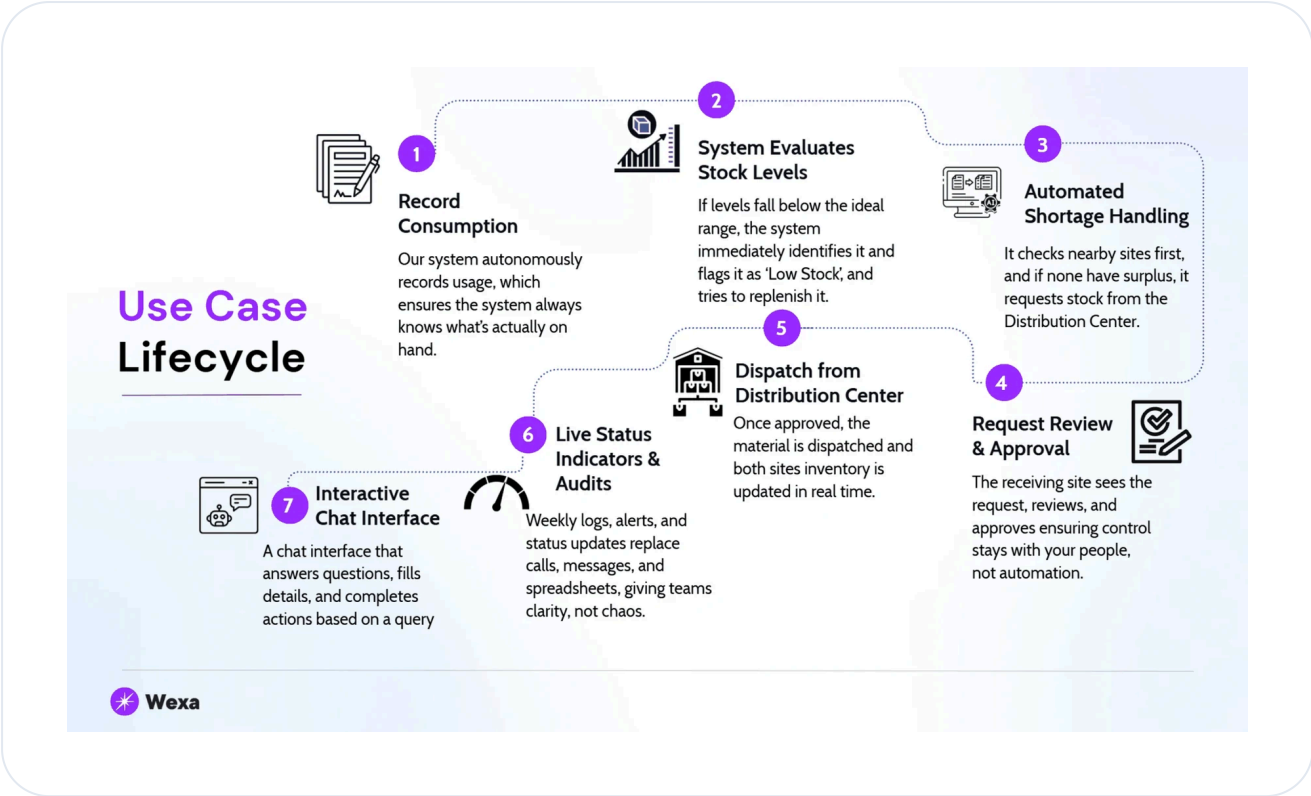


FIGURE Inventory use-case lifecycle: record consumption → evaluate stock → shortage handling → request review → dispatch → live status and audit → chat.

Implementation plan

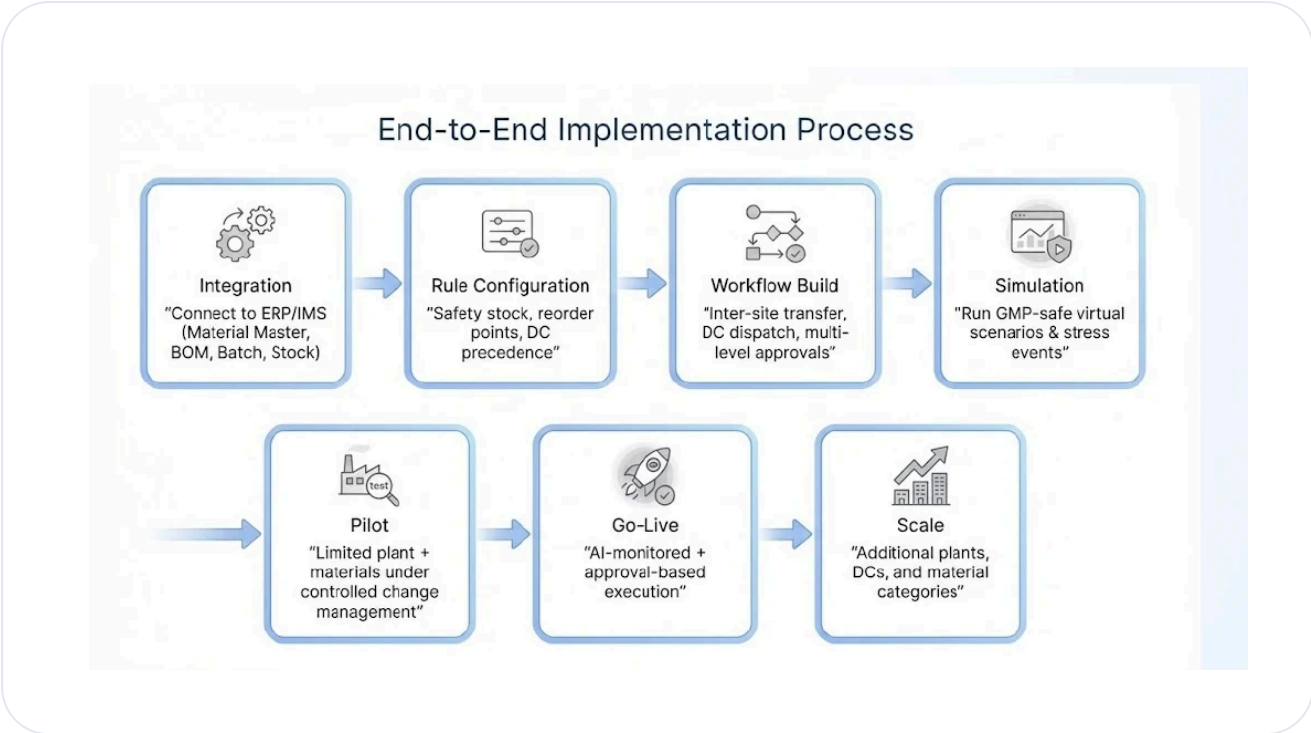


FIGURE End-to-end implementation process: integration, rule configuration, workflow build, simulation, pilot, go-live, scale.

Results

MEASURE	BEFORE / WITHOUT WEXA	WITH WEXA
Excess inventory across plants	\$20M	\$17M
Annual cost of the process	\$5.3M	\$4.4M
Stock-outs	Baseline	-25% in 6 months (pilot target)
Time to implement the AI solution	6 months	6 weeks

MEASURE	BEFORE / WITHOUT WEXA	WITH WEXA
AI build cost (one-time)	\$480K	\$44K
AI operating cost per year (models, infrastructure, upkeep, platform)	\$312K	\$166K
Total AI cost in year 1	\$792K	\$210K

WITH WEXA

\$704K

net annual value to the client after Wexa's
own operating cost

4x

faster to implement

47%

lower AI operating cost

\$582K

less AI spend in year 1

- ✓ Targets agreed for the pilot: **15%** less excess inventory in **90 days**, **25%** fewer stock-outs in **6 months**, **30–40%** faster approvals

The same inventory application was reused for a retail chain and an automotive manufacturer's supply-chain proposal.