

Centralized PLM-Driven ERP Synchronization

Scalable Automation at
Enterprise Scale with Workato

Business Impact

85%

reduction in manual
data handling

95–98%

real-time
synchronization across
ERP systems

70–75%

fewer data errors
enterprise-wide

Client Overview

The client is a global manufacturing and distribution enterprise operating across multiple regions with complex product lifecycle, supply chain, and manufacturing processes.

Centric PLM serves as the system of record for product definitions, suppliers, materials, BOMs, and routings. Multiple country-specific ERP systems support procurement, manufacturing execution, inventory management, and finance.

As the organization expanded, fragmented integrations and manual processes limited speed, consistency, and governance.

Client Goals

To scale global operations and accelerate product launches, the client aimed to establish a centralized, PLM-driven integration framework connecting Centric PLM with multiple country-specific ERP systems.



Real-time and near-real-time synchronization of product and manufacturing data



Elimination of manual data entry, spreadsheets, and reconciliation



Standardized, reusable integration patterns for rapid ERP onboarding



Secure, auditable, and traceable data movement



Centralized orchestration, monitoring, and automated recovery



High scalability for future countries, ERPs, and data volumes



Reduced task consumption to control operational costs

Challenges

The existing integration landscape created significant operational and technical constraints

Heterogeneous ERP Ecosystem:

Multiple ERPs with different APIs, data models, validation rules, and localization needs.

High Data Volumes

Large BOMs and frequent changes strained performance and reliability.

Manual and Error-Prone Processes

Spreadsheet-based integrations caused duplication, delays, and high error rates

Slow ERP Onboarding

Each new ERP required custom development with limited reuse.

Limited Visibility and Control

No centralized monitoring, error handling, or automated recovery.

The Solution

A Workato-based middleware architecture was implemented as the central orchestration layer between **Centric PLM and all ERP systems**, providing a scalable and governed integration backbone.



Event-Driven PLM-ERP Synchronization

Optimized Workato recipes enabled real-time and near real-time synchronization of suppliers, materials, BOMs, and routings.

Centralized Orchestration & Error Handling

Unified logging, retries, alerts, and monitoring delivered full operational visibility and reliability.



Python-Driven Transformation Layer

Advanced transformations, validations, and business rules enabled high-performance payload generation and accurate data alignment.



Supplier & Material Master Integration

Automated synchronization with deduplication, UOM normalization, and category alignment.

BOM & Routing Integration

Version-controlled BOM propagation and routing synchronization with delta-based change detection.



Multi-ERP Support Model

Reusable templates and configuration-driven localization enabled plug-and-play ERP onboarding.

Security & Compliance

Encrypted data transfers, OAuth authentication, and full audit trails ensured enterprise-grade security.



Outcomes

The solution delivered a consistent and scalable data foundation across the enterprise:

- Centric **PLM established** as the single source of truth for product and manufacturing data
- Near real-time availability of master data across all **ERP systems**
- Standardized integration framework enabling rapid **ERP and country** onboarding
- Improved manufacturing **accuracy and procurement** readiness
- **End-to-end traceability** with centralized monitoring
- Reduced operational **risk and improved** system reliability
- A future-ready platform supporting **ERP modernization and growth**



Business Value Realized

The client experienced significant transformation across operations:



60% faster product launch readiness through automated PLM-to-ERP synchronization



70–75% reduction in data errors, improving downstream operations



50%+ reduction in time-to-market by eliminating manual handoffs



85% reduction in manual effort, removing spreadsheet-driven processes



95–98% real-time data synchronization across ERP systems



25–30% lower operational costs through automation and task optimization

Client Testimonials

“The Workato-based integration architecture has transformed our PLM-ERP ecosystem. It is now automated, traceable, and highly reliable.”

— Chief Technology Officer

“Near real-time synchronization of product, BOM, and routing data has significantly accelerated our product launch timelines.”

— Global Supply Chain Director