

OPTIMIZING SUPPLY CHAIN PERFORMANCE FOR COPAN

CASE STUDY

About the Customer

Copan is an Italian medical device manufacturer that specializes in high-quality, cutting-edge sample collection products for infectious diseases, human genomics, and environmental and forensic applications. Their solutions support critical laboratory workflows where reliability and traceability are essential. A resilient and efficient supply chain is central to their global operations.

Project Summary

Copan set out to design a high-performance distribution model to support growth and reduce waste from shelf-life-sensitive products. To achieve this with minimized risk and disruption to their operations, they chose IndX to conduct a supply chain network design study backed by simulation.

IndX developed a model to test multiple what-if scenarios and identify the most effective logistics setup. Our Digital Twin team ran As-Is scenarios for validation and To-Be scenarios that introduced a new distribution center. This allowed Copan to compare options and understand feasibility, risks and benefits through clear, data-driven analysis.

Business Drivers

- + Identify the optimal distribution model to support global operations.
- + Reduce inventory levels and minimize risk of product obsolescence.
- + Strengthen resilience against market and demand variability.
- + Understand cost-benefit implications before implementing structural changes.
- + Enable informed, data-driven decision-making through scenario simulation.

Project Activities

- + Modeled Copan's existing supply chain to establish a validated As-Is baseline.
- + Designed To-Be configurations introducing a new distribution center.
- + Integrated SKU-level inventory management logic into the model.
- + Simulated logistics performance across multiple demand and operational scenarios.
- + Conducted cost-benefit analysis comparing As-Is and To-Be configurations.

More About the Project

Leveraging AnyLogic simulation software, IndX developed a Digital Twin that replicates Copan's supply chain structure, inventory behavior and customer demand patterns. Within this model, our team ran As-Is scenarios to validate current performance and To-Be scenarios to understand how a new distribution center would affect inventory levels, replenishment behavior and product aging risk.

The simulation allowed Copan to compare logistics strategies without disrupting operations, giving them clear visibility into which configuration would strengthen service reliability and overall stability.

Insights from the To-Be scenarios helped Copan reduce overstock levels and minimize obsolescence through better inventory positioning. The supply chain also became more resilient to market variability thanks to the identification of a more effective inventory management approach.

Together, these results provide Copan with a validated, data-backed path toward a more efficient and reliable distribution network.

IndX's Advantage

IndX is a global software developer and system integration leader. We combine supply chain expertise with advanced simulation capabilities to help organizations evaluate complex logistics decisions before implementation. Our approach provides customers with clarity, reduces risk and supports long-term operational excellence through informed, evidence-based planning.

Contact Us

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About IndX

IndX is the global division of the Engineering Group specialized in the development, integration and implementation of holistic digital transformation solutions covering the end-to-end lifecycle and supply chain of all industrial products and processes. A leader in digital transformation, the Engineering Group is a global software maker, a system integrator and a leading provider of technology solutions and services. With an annual revenue of over \$1.7 billion and around 15,000 professionals across 70 office locations worldwide, the Engineering Group manages projects in over 50 countries by designing, developing and implementing innovative solutions for the business areas in which digitalization is having the biggest impact today.



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