

How Value Chain Visibility Protects Crucial Vaccine Supplies

As the reverberations of countless supply chain failures continue to make their way around the globe, it's clear that the just-in-time, opaque global supply chains built over the last few decades are failing.

Product value chains — the multi-tier transformations of goods from raw materials through finished products — are hidden from the producers of finished products and from their consumers. Without visibility into the lower tiers of product value chains, it is impossible to know the security and safety of products, the environmental and human impacts of production, or the potential for supply shocks arising from upstream disruptions.

In the pharmaceutical industry, the tremendous demand for COVID vaccines is creating disruptions to the upstream supply of raw materials and sub-components of all vaccines — not just those targeting COVID. In 2021, global health officials warned that other regular immunization campaigns may be at risk if the industry could not produce enough syringes and raw materials.

50% of supply chain disruptions begin below the first-tier supplier*

The average global supply chain has many tiers of production. Thousands of data points must be assembled to draw a complete picture of how and where a product is made, from each material in its makeup, across the global supply chain network.

*Supply Chain Resilience. Report 2021, BCI.

Understanding the complexity of a value chain for something as seemingly simple as a single-use syringe — which requires many specialized and approved suppliers of plastic, glass tubing, and metal — illustrates the complexity of value chains and the need to know your supply chain network.

The Challenge

A forward-thinking Fortune 100 pharmaceutical company was struggling with major blindspots in its product value chains, unable to see beyond its direct suppliers. Without value chain visibility, it was impossible to ensure the delivery and reliability of their two highest revenue-earning medicines.

Connecting to a Living Map of the Global Supply Chain

This pharmaceutical company is transforming their business operations and getting ahead of industry challenges by connecting to the Altana Atlas, the shared source of truth for the global supply chain.

Altana connects and learns from billions of data points to create a living map of the global supply chain, providing unprecedented multi-tier value chain visibility and decision support to the world's most important businesses, governments, and logistics providers.

Illuminating the Multi-Tier Value Chain Network of a Vaccine Product



VALUE CHAIN FACILITY LOCATIONS
PROVIDED BY ALTANA ATLAS

By connecting to the shared source of truth on the global supply chain, this global pharmaceutical company was able to see their extended global supply chain footprint for the first time, and uncover 360° views of their network, such as:

- **An enriched view of their multi-tier product value chains** including facility geolocations, enriched vendor profiles and their corporate ownership networks, sub-tier product transformations, and third-party cyber and credit risk analytics layered onto each network.
- **The transaction-level movements of goods between their sub-tier suppliers.** These details included the dates of shipments, the quantities of goods being shipped, the geolocations of interactions involved in global shipments, and the value of the goods involved in their supply chain.
- **AI-powered risk and business opportunity insights** on the companies, products, and networks of production.

By getting supply chain data out of spreadsheets and connecting to the Altana Atlas, this leading global pharmaceutical company is creating value chain visibility for the first time and revolutionizing its business operations.

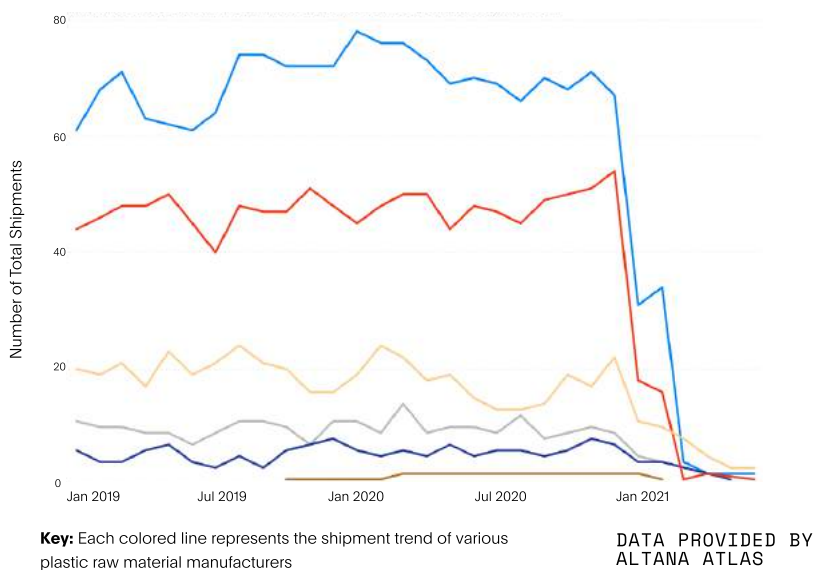
The value chain visibility and decision support provided by the Altana Atlas powers supply chain planning, procurement, risk management, ESG, and compliance programs from a living map of the company's extended supply chain footprint.

Getting to the Source of Issues: What Was Gained

Visibility into their global footprint enabled the company to gain an understanding of their exposure to upstream supply chain disruptions, and react quickly. For example, in 2021, the Altana Atlas revealed that a tier 3 supplier to this company had filed for insolvency, and shortly after, ended production after an unsuccessful business restructure. Through the Altana Atlas, the company was armed with the knowledge of which tier 2 and tier 1 suppliers would be impacted, and which components of the product's value chain were affected. The company used this information to mitigate risk by proactively working with their upstream suppliers to alert them of the impending disruption, source replacement materials, and get ahead of a widespread product shortage.

In another case, the pharmaceutical company was experiencing supply shortfalls of a key plastic input to their vaccine tubing. Despite numerous phone calls and emails to their supplier, they were unable to get to the bottom of the disruption. Through the Altana Atlas they learned that their direct supplier was not in fact a manufacturer — but rather, a distributor — and was therefore unable to simply produce more plastic themselves. The problem ran deeper: the Altana Atlas revealed an industry shortage of plastic raw material to the plastic tubing manufacturers of the vaccine industry.

Plastic Raw Material Manufacturers to Vaccine Suppliers



This unprecedented view of the supply chain and AI-powered decision support allowed for more informed engagement with their extended supply chain. They could make more intelligent decisions on their purchasing patterns, necessary lead times, how much inventory to keep, and potentially, use this information for leverage with their direct suppliers.

By connecting to the shared source of truth for the global supply chain, this leading pharmaceutical company ensured that the sourcing and production of the company's highest revenue-generating products could meet the market's demand — while continuing to save lives.



It is time for a better globalization. Our supply chains can be reliable and resilient. We can trust that our goods are produced sustainably. We can prevent security threats and abuses of the international system. We can include more of society in the benefits of trade and capitalism. By creating a shared source of truth on global commerce, we can bring opaque networks into the light, design for resiliency, and build trust.

Altana AI provides a shared artificial intelligence model of the global supply chain to help governments and the private sector build better global commerce. Our platform is a shared source of truth on businesses and the flows of goods worldwide.

[Learn more at altana.ai](#) or [contact us](#).

