

The Great Return: Why Pharma Manufacturing is Coming Home

Analyzing the shift of critical drug capacity back to US soil.

Supply Chain Resilience · Pharma Operations · Capacity Planning · Reshoring

The newsletter for executive leaders who prefer strategic diagnosis over geopolitical optimism.



The New Reality: Why Supply Chains Can't Be Taken for Granted

For years, we've operated under the assumption that global supply chains were a solved problem—a math equation where the lowest cost per unit always won out. We designed systems to be lean, cutting waste and moving parts across oceans with just-in-time precision. But as any floor manager who has dealt with a "line down" situation due to a missing specialized component knows, that model relies on the world staying quiet.

The reality is that we are seeing a fundamental shift in how critical products—specifically pharmaceuticals—are manufactured and distributed. It isn't just talk; it's physical infrastructure changing. When companies like Roche or Johnson & Johnson invest heavily in expanding capacity specifically within the U.S., particularly in hubs like Oregon and Hillsboro, they aren't doing it for "brand awareness." They are doing it because a supply chain that is long and thin is brittle.

Reshoring isn't just about manufacturing; it's about ownership of the process. We are moving away from the idea that we can outsource our risk to someone halfway across the globe. If you cannot produce,

package, or verify your product in a stable environment close to home, you aren't managing a supply chain—you are gambling on one.

What is Actually Happening on the Floor?

When I walk through plants today, I see the fallout of what I call **The Global Single Point of Failure**. This happens when an organization optimizes for "efficiency" by relying on a single source or a single route for critical materials. On paper, it looks like a win for the procurement team because they squeezed every cent out of the contract.

On the floor, however, this manifests as a fragile operation. It's that one specific chemical intermediate, that one unique glass vial, or that one specialized filtration system that is only available from one factory in a single port. When that link breaks—due to weather, labor disputes, or geopolitical shifts—the production line doesn't just slow down; it stops.

The problem isn't always the "bad" supplier. Often, it's a perfectly competent supplier who happens to be located in an unstable lane of logistics. We have mistaken geographic distance for safety. A procurement win that creates a manufacturing nightmare is not a success; it is just a debt you haven't had to pay yet. When the line stops because of a missing part from across the ocean, the "savings" from the cheap contract evaporate in an afternoon of lost production and frustrated operators.

Why Do We Keep Planning for Yesterday's World?

The reason we continue to rely on these fragile systems is often a choice between two different types of costs: the immediate cost of operations and the deferred cost of failure. It is much easier to justify a low-cost, high-risk supply chain today than it is to argue for a more expensive, resilient one tomorrow.

We often mistake "lean" for "fragile." In many cases, our current plans are based on an era where global trade was stable and predictable. We continue to use old maps because they were easier to read at the time. To see what is actually happening, we have to look at the gap between how leadership describes these decisions and what is actually happening in your facility:

The Comforting Rationalization	The Underlying Reality
"We are optimizing for cost-efficiency."	We are prioritizing a lower purchase price over our ability to fulfill orders.
"Our supply chain is 'just-in-time'."	Our production is dependent on a perfect sequence of events that we cannot control.
"The risk is statistically low."	The impact of the risk—when it occurs—is catastrophic and potentially permanent.

We are often choosing the comfort of an easy procurement win over the hard work of building local resilience. We aren't avoiding the problem; we are just scheduling a much more expensive conversation for a day when the line is already silent.

The True Cost of Being Too Efficient

There is a point where "efficiency" becomes a liability. In pharmaceutical manufacturing, this isn't an academic debate about margins; it's a matter of public trust and patient safety. When we lean out our supply chains until they have no margin for error, we create three specific costs:

1. **The Cost of Interruption:** Every hour the line is down because of a missing component is a failure of the system to protect the product's availability.
2. **The Cost of Fragility:** When one supplier fails and there is no local alternative, you are forced into "firefighting" mode—expediting shipments, paying massive premiums for air freight, or scrambling to re-tool lines for different materials.
3. **The Cost of Reputation:** If a critical medicine isn't available because the supply chain broke at a distant port, that is a failure of leadership and commitment to the end user.

A "successful" procurement strategy that leaves you with no backup plan is not an achievement; it's a gamble. We must stop pretending that a lower unit cost justifies the risk of being unable to fulfill our primary mission when things go sideways.

Building Operational Resilience: The Three Pillars for US Operations

To move toward a more stable model, we have to rebuild our operations on three pillars of resilience. This isn't about adding complexity; it's about ensuring that what you need is where you can get it reliably.

1. **Regional Redundancy:** We must identify every "single point" in the production flow. If a critical component comes from only one geographic region, we must qualify a secondary source within a manageable distance. This means having two different suppliers who are not dependent on the same shipping lane or port.
2. **Vertical Integration of Critical Inputs:** For components that are vital to your primary output—like specific stabilizers or specialized packaging—we should move toward "owning" more of the process. This might mean deeper partnerships with domestic suppliers or bringing certain assembly steps in-house to reduce our reliance on external logistics.
3. **Dynamic Buffer Management:** We must replace "just-in-time" for critical items with "just-in-case." For high-risk components, we maintain a buffer that accounts for realistic delays (port strikes, weather events, manufacturing hiccups). This isn't waste; it is the insurance premium you pay to keep your line running.

Practical Steps to Hardening Your Line (This Week)

You don't have to overhaul your entire procurement strategy by Monday morning. You do need to start identifying where your "leaks" are before they become floods. Here is what you can do on your next floor walk or during your next leadership meeting:

1. **Map the Critical Path:** Select your top three highest-volume products and map every physical component required to finish them. Identify which of those items come from more than 500 miles away.
2. **Identify Single Sources:** Flag any item on that list where only one supplier exists in your current contract. These are your "Single Points of Failure."
3. **Conduct a 'What-If' Drill:** Pick one of those single-source items and ask the team: *"If this shipment doesn't arrive next Tuesday, what is our specific plan to keep the line moving?"* If the answer is "we don't know," that item needs an immediate redesign in your sourcing strategy.
4. **Establish a Local Buffer Zone:** Identify the top five components with the longest lead times and establish a 30-day physical buffer of these items on-site. This gives you a window to react when the unexpected happens, rather than reacting in real-time as the line stops.

Reshoring is not just about where the building sits; it's about ensuring that your operation can withstand the reality of an unpredictable world. We need to move from "efficient" designs that break under pressure to "robust" designs that keep producing no matter what happens outside our gates.

Call to Action

What single point of failure do you suspect will be exposed by this reshoring trend? Share your diagnosis with us at newsletter@sixsigmakaizen.com and tag a colleague who needs to see this shift.

Newsletter replies: newsletter@sixsigmakaizen.com · X: [@kaizen_6sigma](https://twitter.com/kaizen_6sigma)

Stay curious, stay improving,

David Rodgers

SixSigmaKaizen.com

References: [How Roche is Doubling Production Capacity in Oregon \(ManufacturingDigital\)](#)