

When Geopolitics Hits: Building Supply Chains That Actually Endure.

Moving beyond the 'Just-in-Time' mindset to structural resilience.

Operational Excellence · Supply Chain · Risk Management · Lean Six Sigma

The newsletter for operations leaders who prefer structurally redundant planning over reactive crisis management.



The Problem: The Illusion of Efficiency

We have spent decades perfecting the art of Lean—stripping away waste, shrinking buffers, and honing "Just-in-Time" (JIT) to a razor's edge. In a stable world, JIT is a masterpiece of engineering. It keeps capital from sitting idle in warehouses and ensures that every movement on the floor serves a purpose. But we have made a critical mistake: we have mistaken an optimization for stability with true resilience.

The problem is that JIT was designed for a predictable environment, not a volatile one. When you strip out all the "waste," you also remove the margin for error. In modern manufacturing, many leaders treat efficiency as the ultimate goal rather than a tool to be used within specific boundaries. We have built systems so lean that they lack the "fat" required to absorb even minor shocks.

When a shipment is delayed by two days because of a port strike or a regional conflict, a truly resilient system absorbs that hit without stopping the line. A purely efficient system collapses. We must recognize that efficiency and resilience are often in tension. You cannot have both at their absolute

extremes simultaneously. If your process stops every time there is a hiccup in the global supply chain, you haven't built an efficient system; you've built a fragile one that only works when everything goes perfectly—which, as we've seen lately, is rarely the case.

The Dependency Trap: Why We Fail to Plan for Disruption

I call this **The Single Point of Failure Trap**. It happens when a company identifies its primary supplier and treats it as a "solved" problem because they have a signed contract and a good relationship. On paper, you are managed; on the floor, you are vulnerable.

I once watched a production facility grind to a halt not because they lacked parts, but because their Tier 2 provider—the company that supplied the raw components to *their* supplier—had been forced to shut down due to local instability. The manufacturer had no visibility into who was making the sub-components. They were operating on an assumption of continuity that didn't actually exist in the physical world.

We often mistake a "contract" for a "capability." Just because you have a signed agreement with a vendor doesn't mean they have the capability to deliver when their own neighborhood becomes complicated. We fall into this trap because it is easier to manage one primary relationship than it is to map out and diversify the entire web of dependencies. When we fail to see these hidden knots in our supply chain, we aren't just being "lean"—we are being blind.

Why Risk Management Remains an Academic Exercise

For many manufacturing leaders, risk management feels like a paper exercise—a series of spreadsheets filled out by someone in an office who doesn't have to stand on the floor when the line stops. It becomes a checkbox for insurance or compliance rather than a tool for operational continuity.

The difference between "Risk Modeling" and "Operational Resilience" is the difference between a prediction and a reaction. One lives in a spreadsheet; the other lives in your standard operating procedures (SOPs).

The Academic Risk Model	The Operational Reality
Probability percentages of "Force Majeure" events	A pre-negotiated contract for secondary freight routes
Quarterly risk assessment meetings	A physical inventory buffer of critical long-lead items
Identifying a list of potential risks	A documented "Plan B" for when the primary port is closed
High-level mitigation strategies	A technician knowing exactly which local supplier holds the backup stock

We need to move from identifying risk to building resilience. If your risk management plan requires an executive meeting to decide what to do when a shipment doesn't arrive, it isn't a plan—it's a delay

tactic. A real plan is already baked into the system so that the person on the floor knows exactly how to pivot before the problem becomes a crisis.

What Happens When You Only Optimize for Cost?

When we prioritize cost above all else, we are essentially "borrowing" reliability from the future to pay for margins today. It feels like a win in the quarterly report, but it creates what I call **The Fragility Tax**.

When your supply chain is optimized solely for the lowest possible unit price, you lose the luxury of choice when things go wrong. If every component comes from one region because it's five cents cheaper than the alternative, you have no "pivot" move left in your pocket. When that region faces a crisis, your costs don't stay low—they skyrocket as you scramble to find emergency air freight or secondary sources at any price just to keep the lights on.

The consequences are tangible and expensive:

- **Stranded Inventory:** Having 10,000 units of a product that cannot be finished because one \$0.50 bracket is stuck behind a border.
- **Dead Lines:** Paying skilled operators to stand idle while waiting for a shipment that was "supposed" to arrive yesterday.
- **Brand Erosion:** Failing to deliver on orders to your customers, which costs more in reputation than any amount of savings gained from lean sourcing.

We must stop treating "redundancy" as waste. In the context of global instability, redundancy is an insurance policy. It's not a luxury; it's a prerequisite for survival.

Building Structural Resilience: A Three-Pillar Framework

To move from fragility to durability, we have to rebuild our supply chain around three specific pillars. This isn't about adding "more stuff"; it's about building better structures into the system.

1. Multi-Modal Routing. Do not rely on a single way to get goods from point A to point B. If your plan relies solely on ocean freight because it's cheapest, you must have standing contracts and established relationships with rail or trucking providers who can step in if ports become congested. You need the "rails" ready even if you don't use them every day.

2. Strategic Buffer Placement. We often think of inventory as a failure of Lean. However, there is a difference between *wasteful* inventory and *strategic* buffer. Identify your high-risk, long-lead items—the parts that are hard to source or come from volatile regions. These should not be managed with JIT logic; they should have a "safety floor" based on lead-time volatility, not just production demand.

3. Mandated Source Diversification. This means moving away from the "best price" model toward a "dual-source" requirement for critical components. If you can't source a part from two different geographic regions, that part represents a single point of failure in your system. You aren't just buying parts anymore; you are buying insurance against reality.

Actionable Steps for Your Next Gemba Walk

You don't need to wait for the next board meeting to start this work. You can begin on the floor tomorrow. During your next walk, I want you to look past the assembly line and toward the flow of materials.

1. **Map the Tier 2 Reality.** Ask your procurement lead or your shop floor leads: "Who makes the parts for our primary supplier?" Don't settle for a name; ask where that company is located and if they have multiple sources for their own raw materials.
2. **Identify the "Stop-Work" Components.** Walk the line and identify which three components, if missing today, would stop production immediately. These are your high-risk items. Check exactly how much of these you have on hand and how long that stock will last if no new shipments arrive for 30 days.
3. **Audit the "Workaround" Culture.** Ask the operators: "When a part is late, what do you actually do?" If they tell you they just wait or "make it work" with whatever is available, you have identified a lack of formal procedure. Create a standard response for these moments so the team isn't improvising under pressure.
4. **Verify the Logistics Path.** Pick one key component and trace its path from origin to your dock. Identify every handoff point where it could be delayed by external factors (customs, ports, borders). If there are more than three "risk points," you need a contingency plan for each one.

The Hard Choice: From Lean to Resilient

The transition from a purely lean model to a resilient one requires a shift in mindset that many leaders find uncomfortable. It means accepting that some parts of your operation will be slightly less "efficient" on paper so that they are significantly more robust in practice.

It is the difference between **Optimizing for Today** and **Building for Tomorrow**.

A lean system without resilience is like a high-performance race car with no spare tires; it's incredibly fast until it hits the first flat nail. A resilient system recognizes that while we want to move as fast as possible, our primary job is to reach the finish line. We must stop pretending that "efficiency" is the same thing as "reliability."

The goal isn't just to have a lean process; it's to have a durable one. When you choose to build in buffers, diversify your sources, and map your dependencies, you aren't adding waste—you are building the foundation that allows your team to keep working when the rest of the world is hitting pause.

True leadership in manufacturing isn't just about cutting costs; it's about ensuring the line never stops.

Call to Action

What is the most overlooked single point of failure in your current operations? Share this with another leader who needs a better plan.

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

Stay curious, stay improving,

David Rodgers

SixSigmaKaizen.com

References: Deming's System of Profound Knowledge; Lean Principles

SixSigmaKaizen.com — Professional education for operational excellence.