

Why Integrated Supply Chain Design And Planning Matters Now More Than Ever

Business moves faster today than at any time in history. Market conditions shift overnight, customer expectations are higher, and competition is fiercer than ever. The days of setting up a supply chain and letting it run for years with minimal adjustments are long gone. Twenty years ago, companies could build stable supply lines with little disruption — Black Swan events were still rare and overall, operations were predictable. The stakes are higher and the margins are thinner than ever, and small mistakes in supply chain execution can ripple through your organization.

Managing modern supply chains with outdated traditional tools like macro-filled spreadsheets or monolithic "one-size-fits-all" software solutions are no longer sufficient to keep pace. Fortunately, technology has evolved alongside the increasing complexity of the supply chain landscape, and access to advanced tools — Al-powered forecasting, digital twins, and composable supply chain solutions-are more widely available than ever before. Supply chain leaders must incorporate resilience, agility, and proactive decisionmaking along with financial and service level considerations — because those who wait to build networks that endure shocks and anticipate delays, will fall behind competitors who take action now.

Chaos is the norm.

"The need for supply chain design really becomes apparent to businesses in periods of chaos — whether it's high growth, slower-than-anticipated growth, or big macro environmental changes," says Matt Morton, Senior Director of Network Design at GAINS. More than the day-to-day pressures and difficulty of successfully managing your supply chain operations, supply chain leaders are up against an army of external factors working against them.

- Demand Variability Shifting customer preferences, market trends, and economic conditions create fluctuations in demand that traditional supply chains struggle to handle.
- Supplier Instability Supplier shutdowns, raw material shortages, and production delays create bottlenecks that ripple through the supply chain.
- Geopolitical Risks Trade restrictions, tariffs, and geopolitical conflicts can suddenly impact supply routes and sourcing strategies.
- Natural Disasters Hurricanes, earthquakes, floods, and pandemics can halt production and disrupt transportation networks.
- Technology Failures Outdated systems and data silos hinder real-time decision-making and responsiveness.



Designing a Supply Chain for Disruption: Your Competitive Advantage

Because of the rapid pace of change and the increasing number of disruptions, it's naive to imagine that the chaos present in the supply chain is temporary. There will be no return to "normal." It is time that supply chain leaders recognize that continuous change is the new order of supply chains and that the way forward is to embrace uncertainty and build supply lines that can flourish in it.

Building a supply chain that incorporates uncertainty and variability is the key to surviving in an unpredictable future. "Supply chains have been around longer than the formalized practice of supply chain design," said Morton, "so if you bring your supply chain [to GAINS] as it is, design will help make it better." By integrating supply chain design into your planning practices, companies can create a supply chain network that is more:

1

Agile

Traditional supply chains rely on rigid processes that break down under stress. A composable, modular approach enables companies to quickly reconfigure networks, sourcing strategies, and inventory management in real-time when disruptions occur.

2

Cost-Effective

Rather than investing in large, high-risk, system-wide overhauls, businesses can implement small incremental changes that deliver fast ROI, picking up "quick wins" along the way.

Making small changes, such as optimizing warehouse locations, adjusting inventory policies, or rerouting transportation networks, can create significant savings over time.

3

Resilient

By incorporating variability and uncertainty into the decision-making process along with the use of predictive analytics and scenario modeling, companies can proactively prepare for risks. Imagine designing a car with a sophisticated braking system and an early warning system instead of one that crashes into things "better." GAINS uses Digital twins—virtual models of the supply chain— to allow businesses to test different responses to disruptions before they happen, ensuring informed decision-making in real crises.

4

Scalable

As a business evolves, so should its supply chains. A well-designed network provides flexibility to expand into new markets, integrate new suppliers, or scale production without excessive downtime or investment.



The GAINS Approach: Small Wins Lead to Big Gains

Organizations are hesitant to enlist supply chain design because they assume it requires a massive transformation and therefore put off design projects until they can no longer avoid it. "Many people," as Morton puts it, "feel that if it ain't broke, don't fix it... until a disruption exposes that it was already broken." But by then it's too late.

Rather than "shaking things up" with a large-scale, disruptive overhaul, businesses can achieve dramatic and sustainable improvement through incremental, adaptive change. Incrementalism is the key to sustainable supply chain improvements. This approach ensures companies can evolve alongside shifting market dynamics, supply chain disruptions, and customer demands—without introducing unnecessary risk or operational chaos.

GAINS' composable solutions empower businesses to take small, manageable steps toward optimization.

This means:

- No rip-and-replace projects Companies can build on existing infrastructure instead of starting from scratch.
- Quick wins Instead of waiting years for results, businesses can see measurable improvements within weeks.
- Ongoing optimization Once foundational improvements are made, organizations shift from fixing problems to fine-tuning performance, making small course corrections as needed, reducing the likelihood that their supply chain designs and policies will become outdated and ineffective.



Getting Started: Integrating Planning with Supply Chain Design

Morton highlights the advantage of a unified planning and design approach: "A company like GAINS that does both is uniquely positioned to drive workflows that cross design and planning. You can let design decisions and scenarios affect planning and vice versa. This holistic look hasn't been available before." Our expert guidance ensures you can move at the right speed for your business, balancing immediate impact with long-term resilience. GAINS combines decades of expertise, advanced decision science, and cutting-edge AI-driven technology.

With GAINS P3 methodology, Agentic AI, machine learning, and advanced statistical models, we help businesses turn complexity into clarity. By integrating planning with design, companies can proactively shape their supply chains rather than simply reacting to disruptions. Now is the time to embrace a smarter, more adaptive approach—with GAINS as your trusted partner every step of the way.

How GAINS Enables Incremental, Adaptive Change

GAINS' composable supply chain solutions are designed to empower businesses to take small, manageable steps toward long-term optimization. Instead of forcing a one-size-fits-all transformation, GAINS provides:

- Flexible, modular technology Businesses can implement the capabilities they need, when they need them, without disrupting existing operations.
- Al-powered decision science Machine learning along with predictive and prescriptive analytics help companies make data-backed choices for gradual, high-impact improvements.
- Expert-led change management The GAINS team works closely with organizations to guide them through smart, scalable enhancements that align with their unique business goals.
- Comprehensive visibility & control GAINS enables companies to track the impact of small changes and adjust as needed.

Instead of aiming for a single, perfect supply chain design, businesses should embrace a dynamic, evolving strategy that adapts to real-world conditions. GAINS provides the tools, technology, and expertise to make that evolution seamless—one step at a time.



Facing the Future with Confidence

The future of supply chain management belongs to companies that embrace flexibility, continuous improvement, and proactive decision-making. By integrating planning and design from the start, businesses can eliminate inefficiencies, minimize risk, and ensure they're always one step ahead of disruption.

With GAINS, supply chain leaders don't have to fear the future. They can move forward faster, making incremental gains that compound into lasting competitive advantage. The best time to start optimizing your supply chain was yesterday. The second-best time? Right now.

Ready to future-proof your supply chain?

Contact GAINS

About GAINS

GAINS is the supply chain performance optimization company helping companies fulfill their customer's promise. Our first-inclass, best-in-breed composable GAINS Decision Engineering and Orchestration Platform transcends traditional silos of ERP, supply chain planning, and network design, enabling integrated, smarter, faster, and composable decisions across the time to plan horizons from strategic design to order execution. Specifically designed to manage volatility, uncertainty, complexity, and ambiguity, GAINS customers are able to focus on prioritizing the right decisions at the right time at the right speed and scale to optimize supply chain performance, improving profitability and customer confidence. For more information, visit www.gainsystems.com.

GAINS® is a registered trademark, and Move Forward FasterSM, and Proven-Path-to-Performance (P3) SM are service marks of GAINSystems. Other products mentioned in this document are registered, trademarked, or service marked by their respective owners.

