

OPTIMAL NETWORK DESIGN WITH AI SIMULATION

Ensuring resilient, adaptable, and profitable supply chains by design

PREPARE YOUR BUSINESS FOR THE UNEXPECTED

The pressure to maintain smooth operations according to the planning while managing disruptions caused by uncertain market conditions and unexpected disruptions, creates a gap between the stability required for production planning and the responsiveness demanded by the market. Without the appropriate tools to address real-world uncertainty, maintaining smooth operations and desired KPIs becomes an extremely difficult task.

The Cosmo Tech AI-Simulation Platform enables companies to reconcile planning stability and consistency with market responsiveness without sacrificing one or another, by simulating unlimited scenarios, factoring in uncertainties, constraints, and cascading effects. This empowers companies to uncover hidden, high-impact vulnerabilities in their supply chains before disruptions occur—while also dynamically optimizing plans to stay flexible and responsive to market changes.

IDENTIFY

Scan your Supply chain for vulnerabilities and cascading effects of unforeseen disruptions.

ANTICIPATE

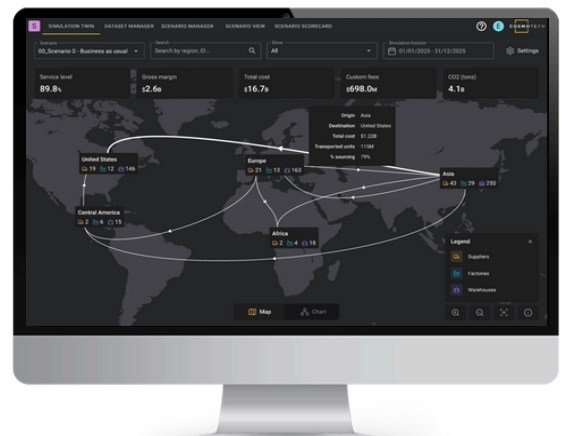
Automate thousands of goal-seeking simulations to find the optimal plan.

MITIGATE

Build resiliency and minimize revenue risk with prescribed actions.

Supply Chain Network Design Simulation Twin Package

- ✓ Fast Time-to-Value: initial supply chain model operational in just 28 days.
- ✓ Annual License Model: clear, predictable annual simulation engine license fee.
- ✓ MACC-Eligible Subscription: all license costs applicable to Azure consumption commitment.
- ✓ Minimal Data Requirements: operational with just your current supplier master data from your ERP.
- ✓ Resilience Discovery Guarantee: we identify at least 3 critical vulnerabilities or your first quarter is free.



[ALWAYS-ON SIMULATION]

EXAMPLES OF AI SIMULATION IN ACTION



Network Design and Strategic Sourcing

By scanning the entire supply chain and simulating over 80,000 simulation scenarios, a global tire manufacturer optimized supply chain network and sourcing investment strategies based on cost, revenue, and operational constraints, achieving €10M in logistics savings.



Risk-Optimized Resilience Investment

A Fortune 100 company used our risk simulation to prioritize 12 specific resilience investments from an original list of 50+ options. These targeted changes reduced their vulnerability to supply disruptions by 64% while spending 40% less than their original resilience budget.



Hidden Dependency Discovery

A global manufacturer discovered through simulation that 78% of their critical microcontroller supply depended on a single Tier-3 supplier. By implementing alternative sourcing options, they avoided a 23-day production stoppage when that supplier experienced a fire six months later.



E2E SUPPLY CHAIN NETWORK VISIBILITY

Map and visualize the entire multi-tier supply chain network using only your current supplier master data.



VULNERABILITY SCAN

Proactively scan your supply chain to identify vulnerabilities and assess the cascading effects of unforeseen disruptions.



SYSTEMIC BUSINESS IMPACT ANALYSIS

Weigh the impact of business decisions or disruptions and their cascading effects on the entire supply chain.



DYNAMIC AND ADAPTIVE UNCERTAINTY MODELING

Identify and quantify specific risk exposure for individual production resources and operations.



UNLIMITED DISRUPTION SIMULATION SCENARIOS

Simulate unlimited disruption scenarios to prioritize mitigation investments where they matter most.



READY-TO-USE RESILIENCE REPORTS

Generate executive-ready and impact-driven resilience reports for board and investor presentations.

+5%

Global Profit Margins



The best decision is always going to be the one that takes into account the uncertainty and that leads to a positive outcome even when the future is going to be different than what was forecasted."

-Supply Chain Expert, Automotive Manufacturing

Interested in learning more?
www.cosmotech.com