

Strategic Planning and Analysis for Supply Chains and Networks

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**The foundation for building
resilient supply chains.**

scmBLOX overview.

scmBLOX has a proven track record of showing how disruptions and major changes occurring anywhere in the supply chain can impact your operations and profitability.

Essentially, **scmBLOX** is the foundation for building resilience into your supply chain.

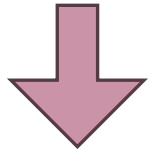
The new reality.

Covid, the Suez and Panama Canals, the Red Sea, extreme weather events, etc. have shown us that long-term, strategic risks and issues have *huge* impacts . . .

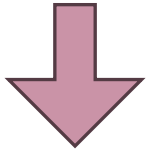
. . . but the software tools and techniques that we use today are *insufficient* for analyzing and addressing these types of risks.

The problem.

We have big risks.



We can't understand and solve them.



Long-term *profitability* is uncertain.



“Supply chain management” is a misnomer.

Today’s leaders do not manage “supply chains.”

They manage *pieces* of the supply chain.

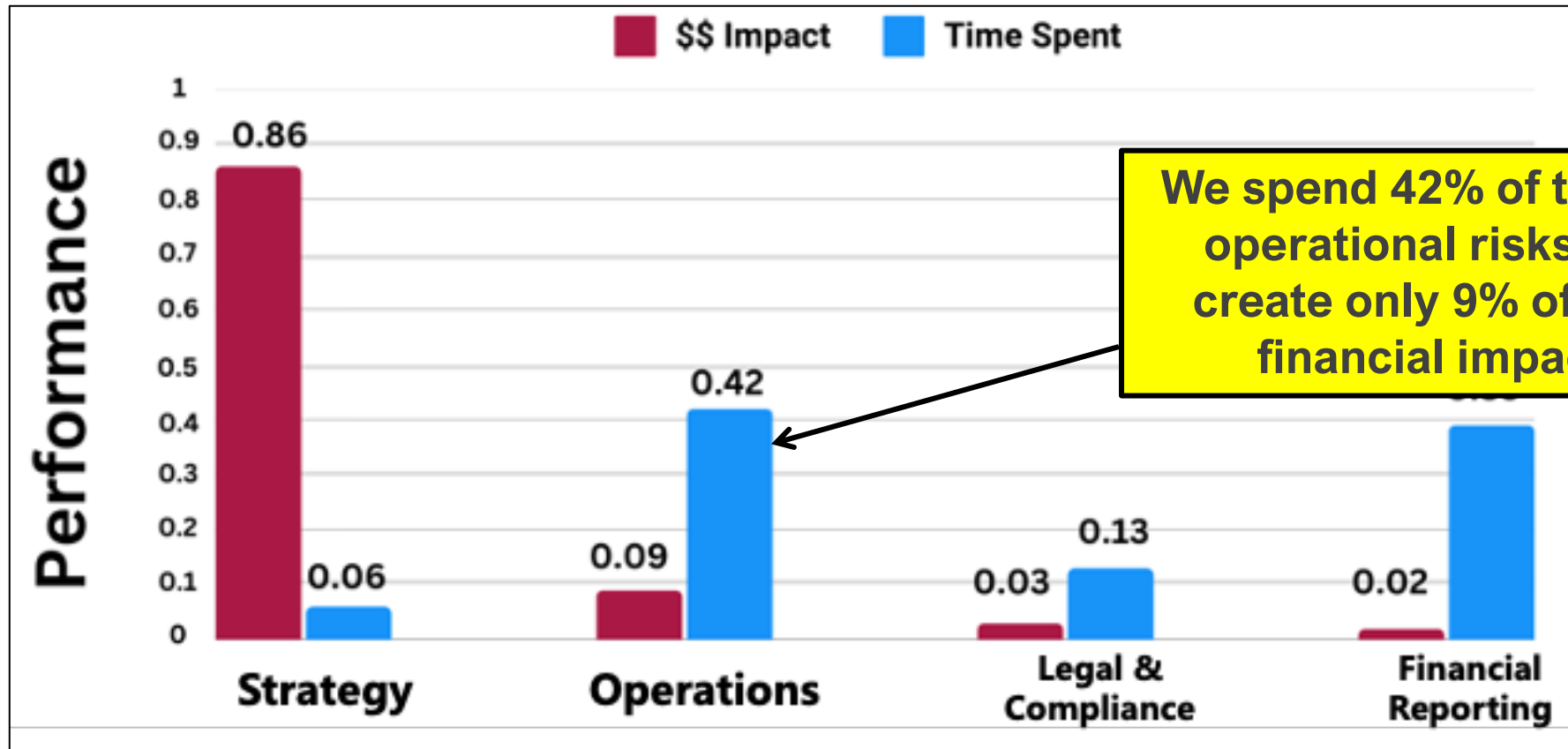
They manage suppliers, orders, inventory, etc.

They rarely look at the *entire* supply chain.

There is a critical, unmet market need for this capability.



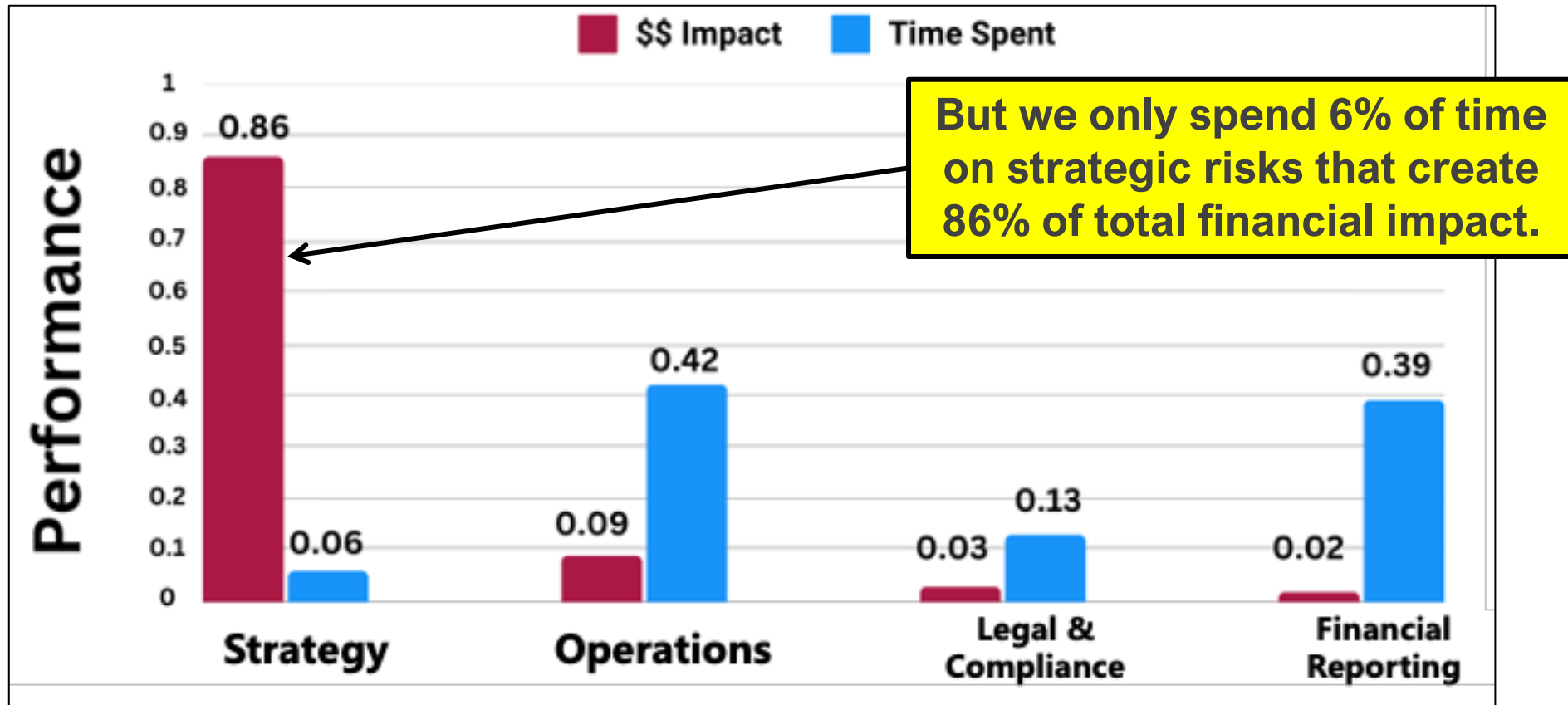
Strategic risk paradox.



We spend 42% of time on operational risks that create only 9% of total financial impact.

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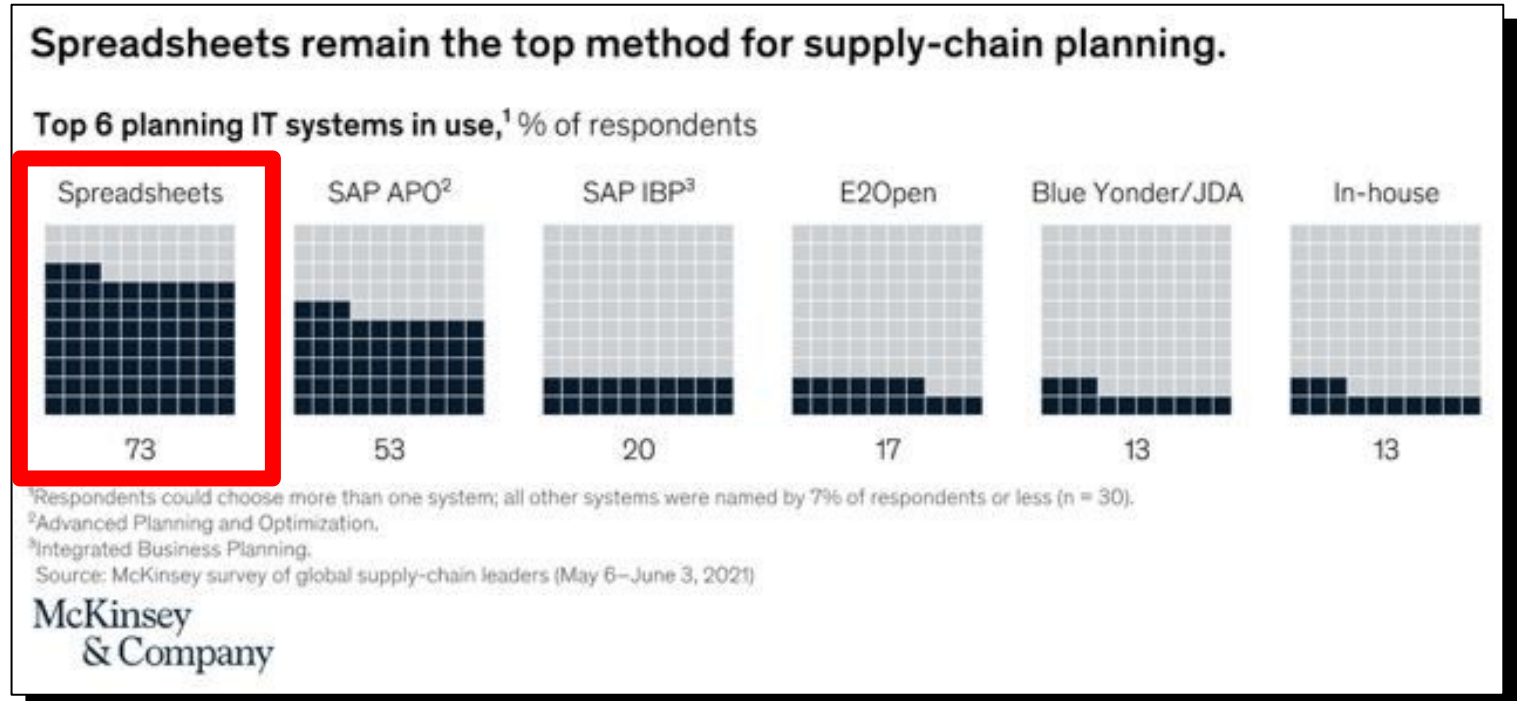
Strategic risk paradox.



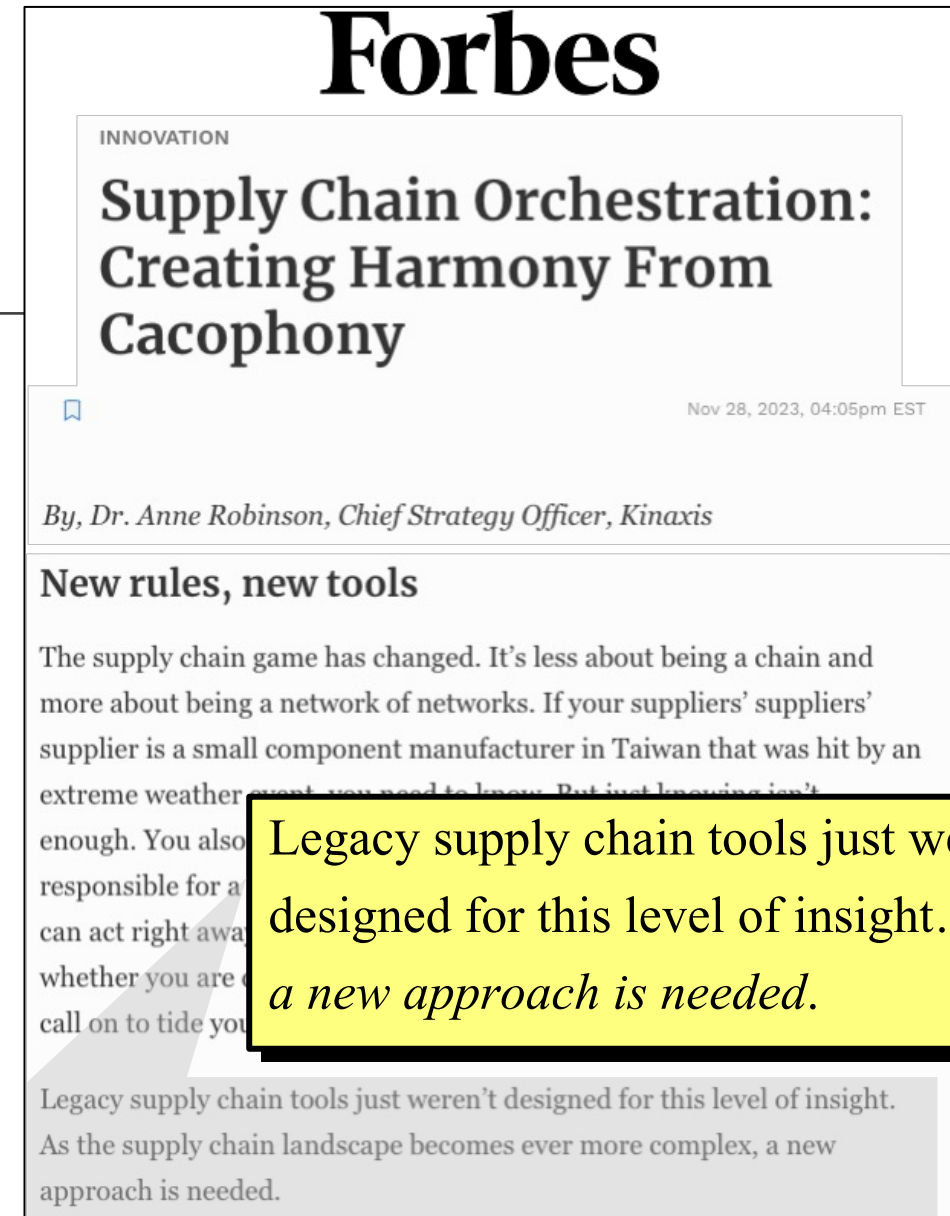
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What tool do we use? A spreadsheet!

We use the simplest, least expensive tool to address major strategic risks and issues worth \$Ms and even \$Bs!



Market need.



Real-world examples.

The New York Times

The Boeing Company is especially proud of its giant airplane assembly plant here, 30 miles north of Seattle. Cranes go up and down in a high-technology ballet, piecing together the modern age: the jumbo jet. Last year, 135,000 jets rolled off the factory, which, covering 98.3 acres, could contain more than **\$2.6B** of Disneyland.

But in September, observant visitors glimpsed a surprising spectacle: the arrival of taxis dispatched by Boeing to pick up parts from local suppliers, parts desperately needed to move unfinished airplanes out the door.

Such not-in-time manufacturing was just one sign that Boeing's ambitious plan to more than double its monthly output, to 43 planes from 18, had spun out of control. In early October, overwhelmed by thousands of foul-ups, Boeing temporarily halted production of the 747 as well as the smaller 737.

Then, a few weeks later, Boeing posted a \$1.6 billion third-quarter charge and its first operating loss in 28 years. The problems will cost another \$1 billion next year, the company said.



\$300M



Supply Chain Game Changer™

Daily Insights, Trends and Solutions for Professionals, Experts, Students and Society

KFC Ran Out of Chicken!

There's another unfortunate entry in the annals of Supply Chain failures that burst into the wider world of business and pop culture: More than half of the UK's Kentucky Fried Chicken stores recently closed because KFC ran out of [chicken!](#)

CBS EVENING NEWS >

Chip shortage cost U.S. economy billions in 2021

CBS
EVENING
NEWS
WITH MORAN O'DONNELL

BY OMAR VILLAFRANCA
JANUARY 28, 2022 / 9:16 PM EST / CBS NEWS

(\$240B)



scmBLOX can stress-test supply chains.

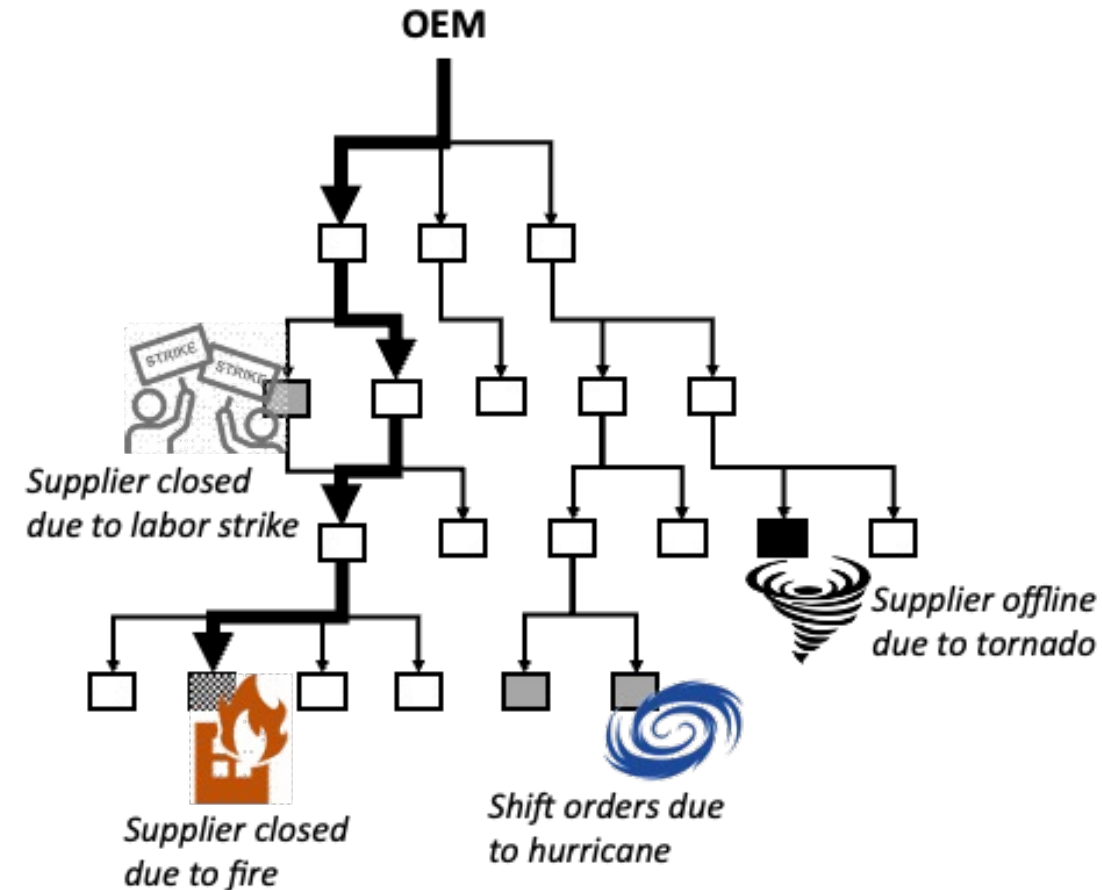
Stress-test from *top-to-bottom-to-top*.

Check entities for their *vulnerability*.

Test operational impacts of *disruptions* anywhere in the supply chain.

Determine *weak points* and *recoverability*.

Improve *resiliency* and *recovery times*.



scmBLOX extends current capabilities.



Network Design / Optimization Tools

4FLOW

kinaxis

Optilogic

LLamasoft
A Coupa Company

E2OPEN

SINWELL

anyLogistix

BlueYonder

SC Risk ID Tools

prewave

resilinc

interos

Altana

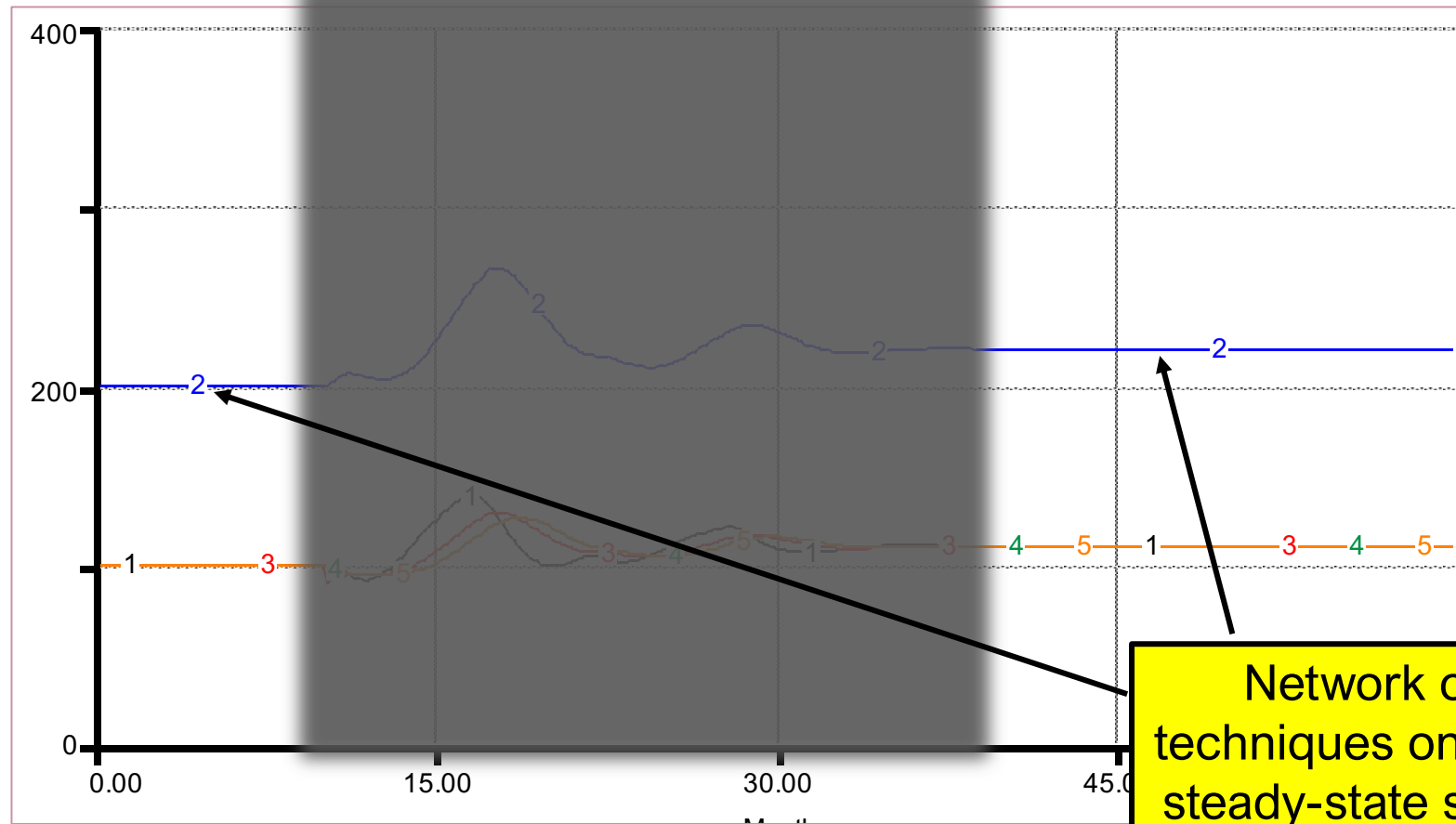
everstream

INVENTORY

+ scmBLOX =

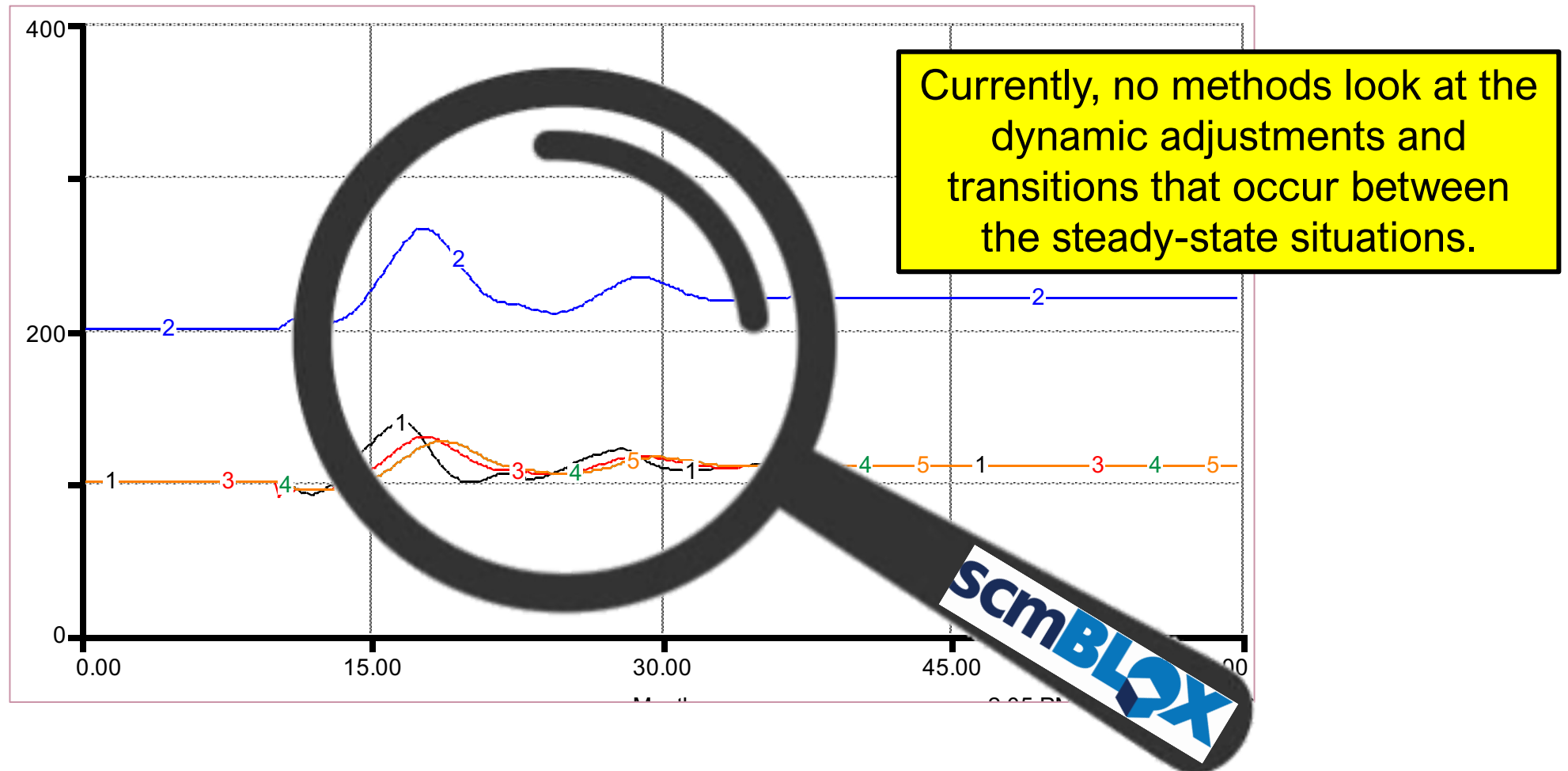
- Quantified ROI
- True top-to-bottom viz
- Increased resiliency
- Greater robustness
- Lower risk
- Long-term profitability
- Market leadership

Current network methods are insufficient.



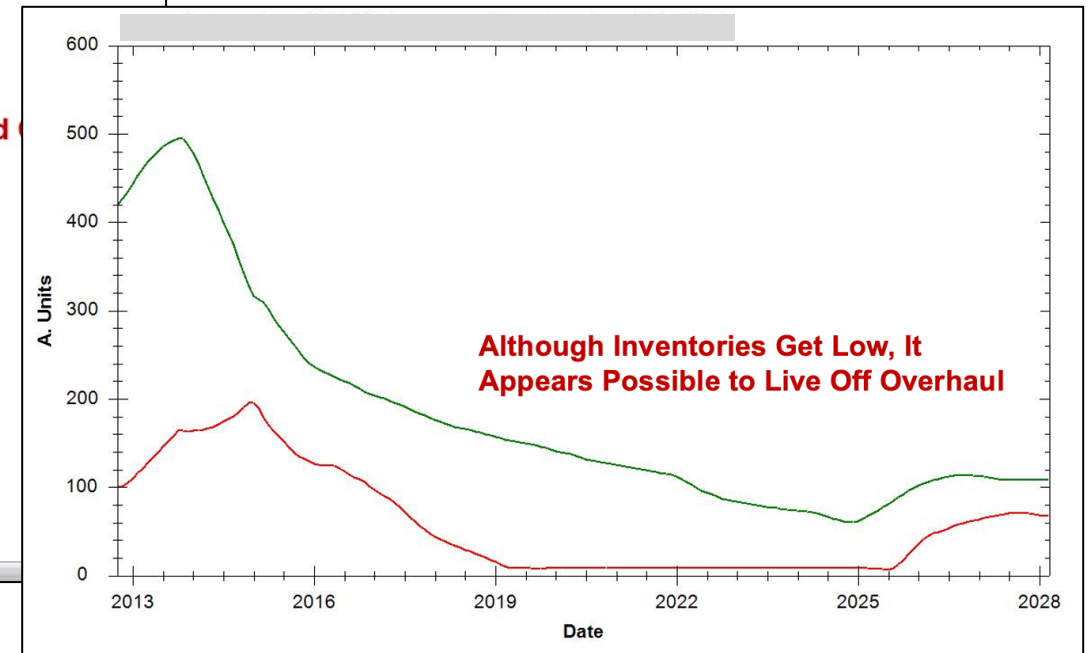
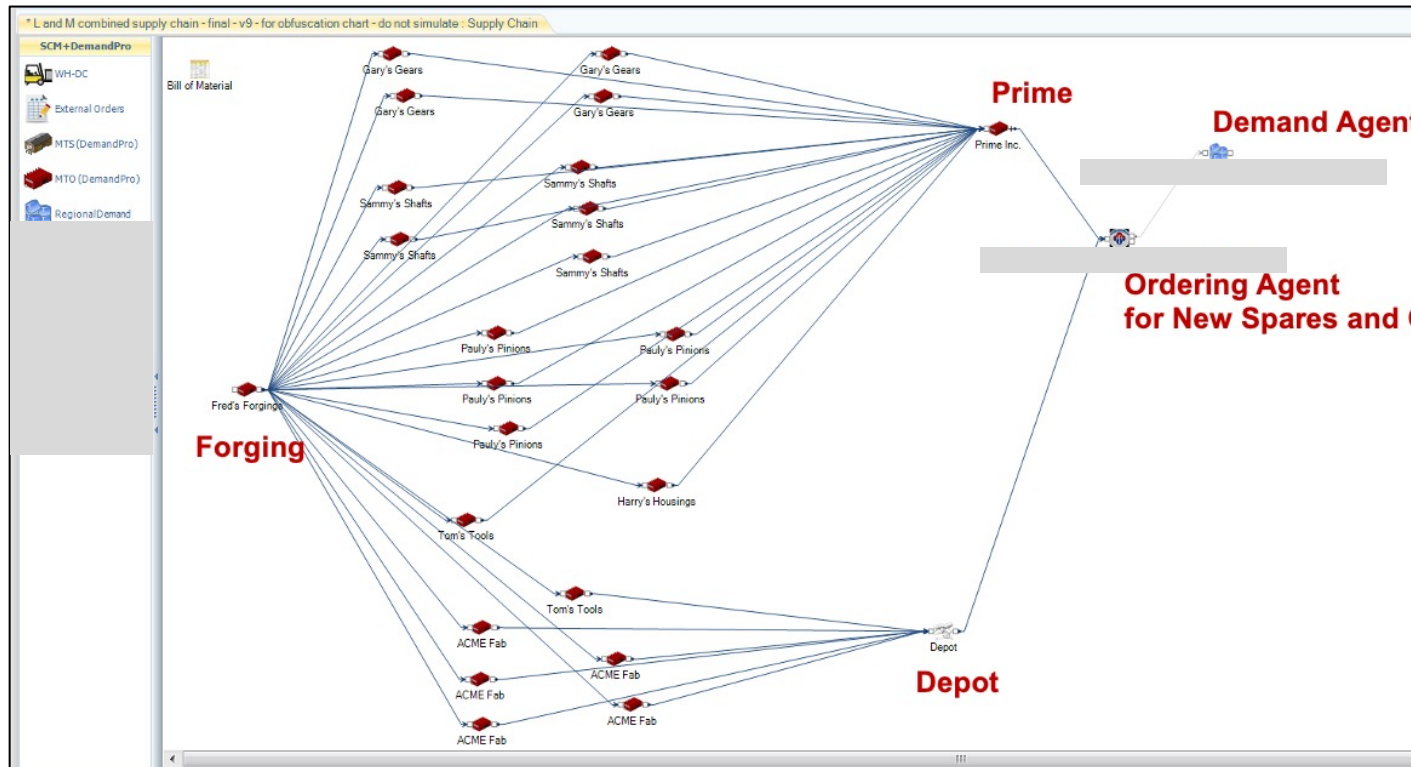
Network optimization techniques only look at these steady-state situations. They are single-point solutions.

Current optimization methods are insufficient.



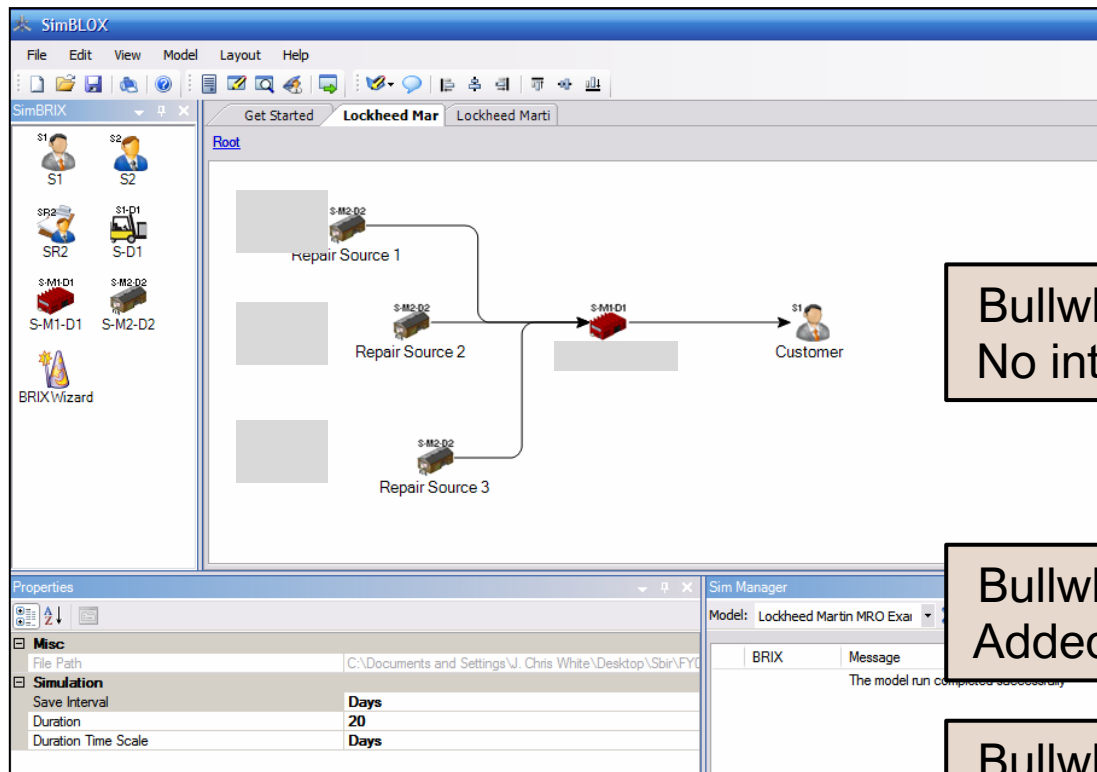
Ex: DoD helicopter program

- Analyzed capacities at several “choke points” to ensure key suppliers could support multiple demand streams.
- Validated ability of supply chain to withstand several shocks and remain viable over the life of the program.
- Results: \$900M cost avoidance



Ex: DoD aircraft program

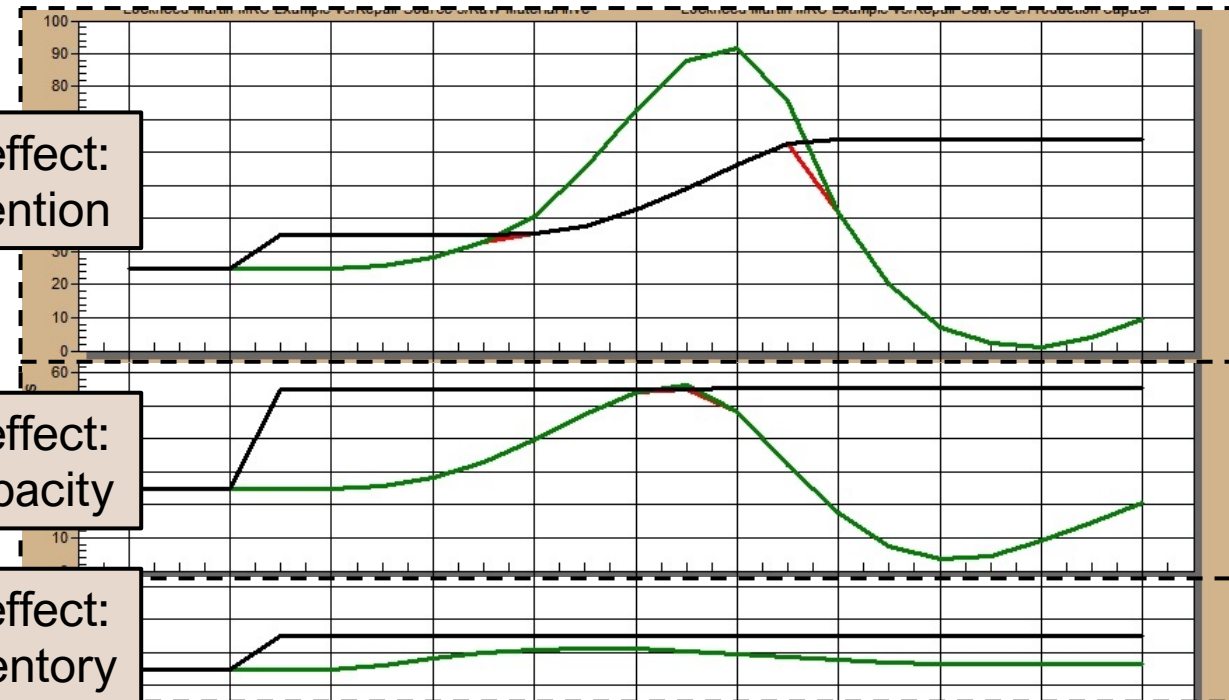
- Evaluated inventory positioning at various locations within the supply chain.
- Analyzed trade-offs of moving inventories to multiple locations.
- Determined methods for minimizing bullwhip effect on operations.
- Results: \$1.2B cost savings



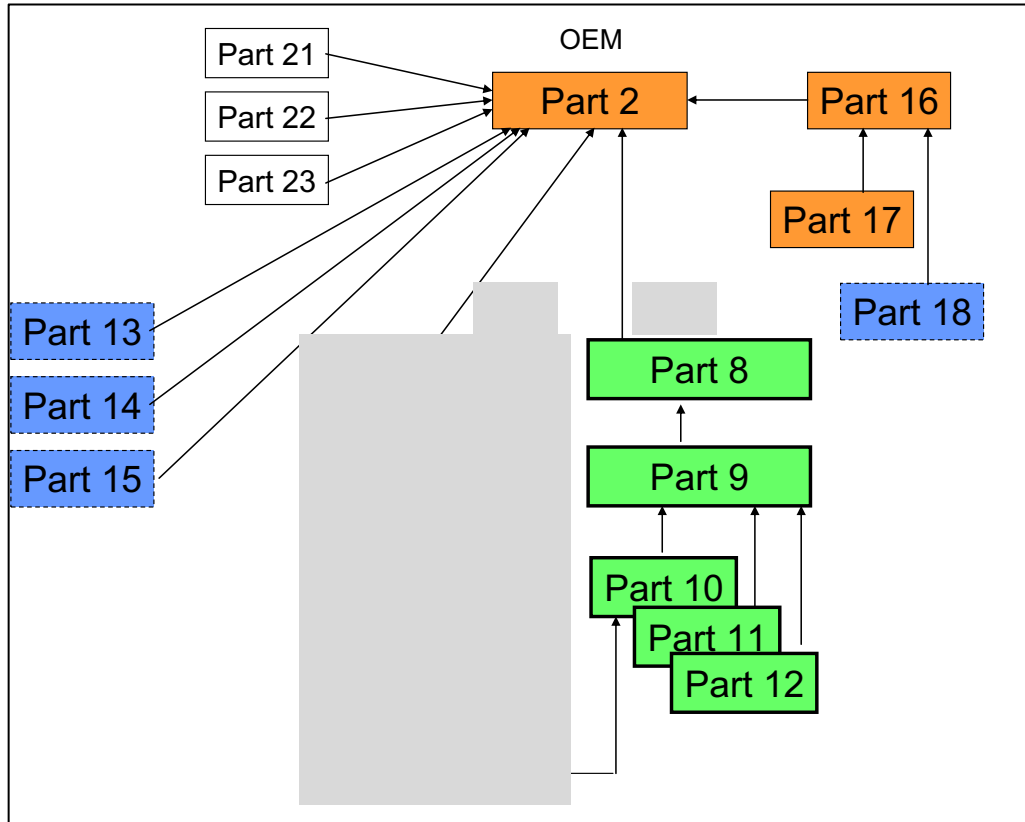
Bullwhip effect:
No intervention

Bullwhip effect:
Added capacity

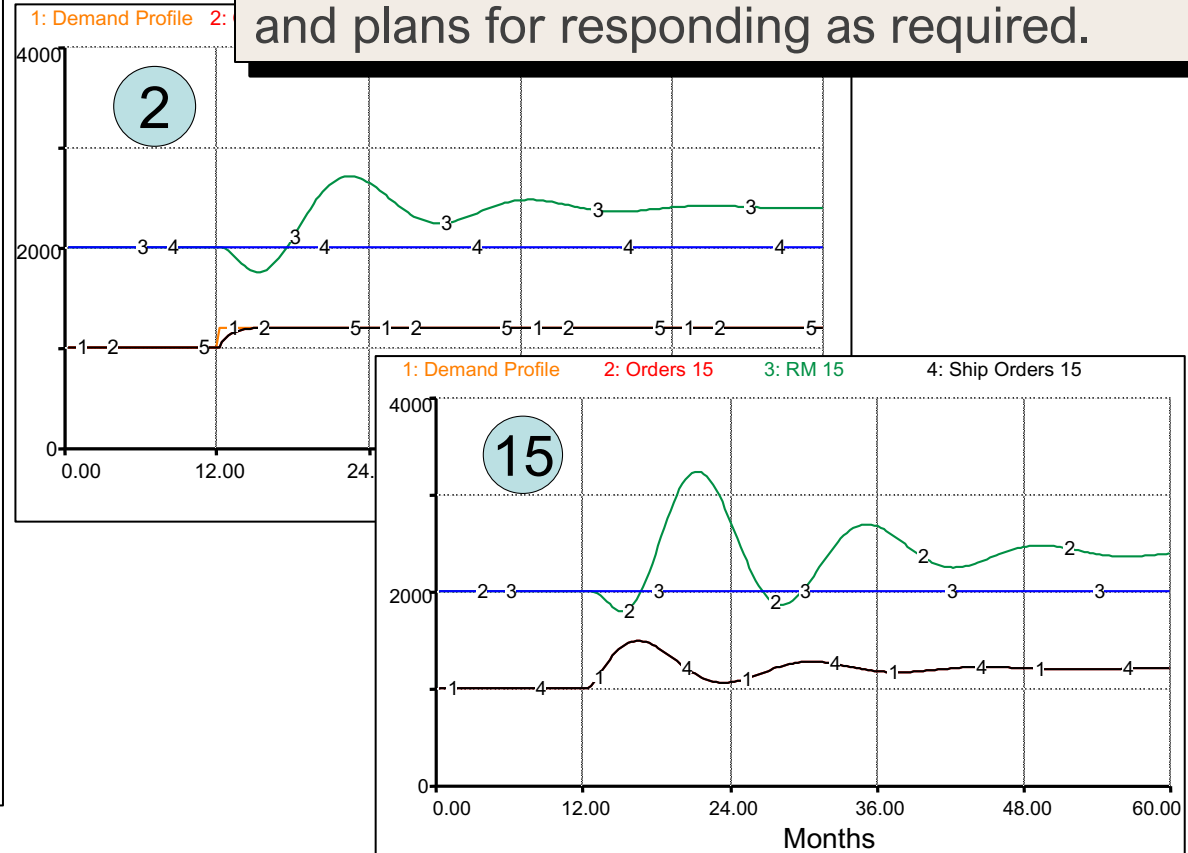
Bullwhip effect:
Buffer inventory



Ex: DoD missile program



- Calculated performance at several critical system suppliers.
- Stress-tested supply chain with demand spikes to verify recoverability with acceptable limits. Identified the maximum survivable disruption.
- Results: Identified a key early warning indicator and plans for responding as required.



scmBLOX can . . .

Understand *vulnerabilities* related to:

- Demand variability
- Sole sourcing vs. multiple sources
- Long lead times
- Disruptions or delays

Quantify *resiliency* in terms of:

- Volatility of oscillations in inventory and production rates
- Recovery speed to reach new demand levels
- Ability to dampen potential spikes

Improve *performance* in terms of:

- Reallocation or movement of inventories
- Alterations of ordering patterns to minimize volatility
- Adding or removing suppliers for contingencies
- Investing in additional production capacity for surges



The team.



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- MIT – Aerospace Eng
- Univ of Mich – Industrial Eng
- 25 yrs experience in A&D supply chains
- Lean Six Sigma Master Black Belt
- Government contracting
- Product development
- Modeling & simulation
- Published author



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Supply Chain Executive

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- USAF Director of Supply
- Fully qualified Joint Service Officer
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- Member of MDA Transforming Defense Supply Chain Technical Advisory Board
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- Published author