

Building Resilience Into Your Supply Chain

Presented by

Peter Guinto

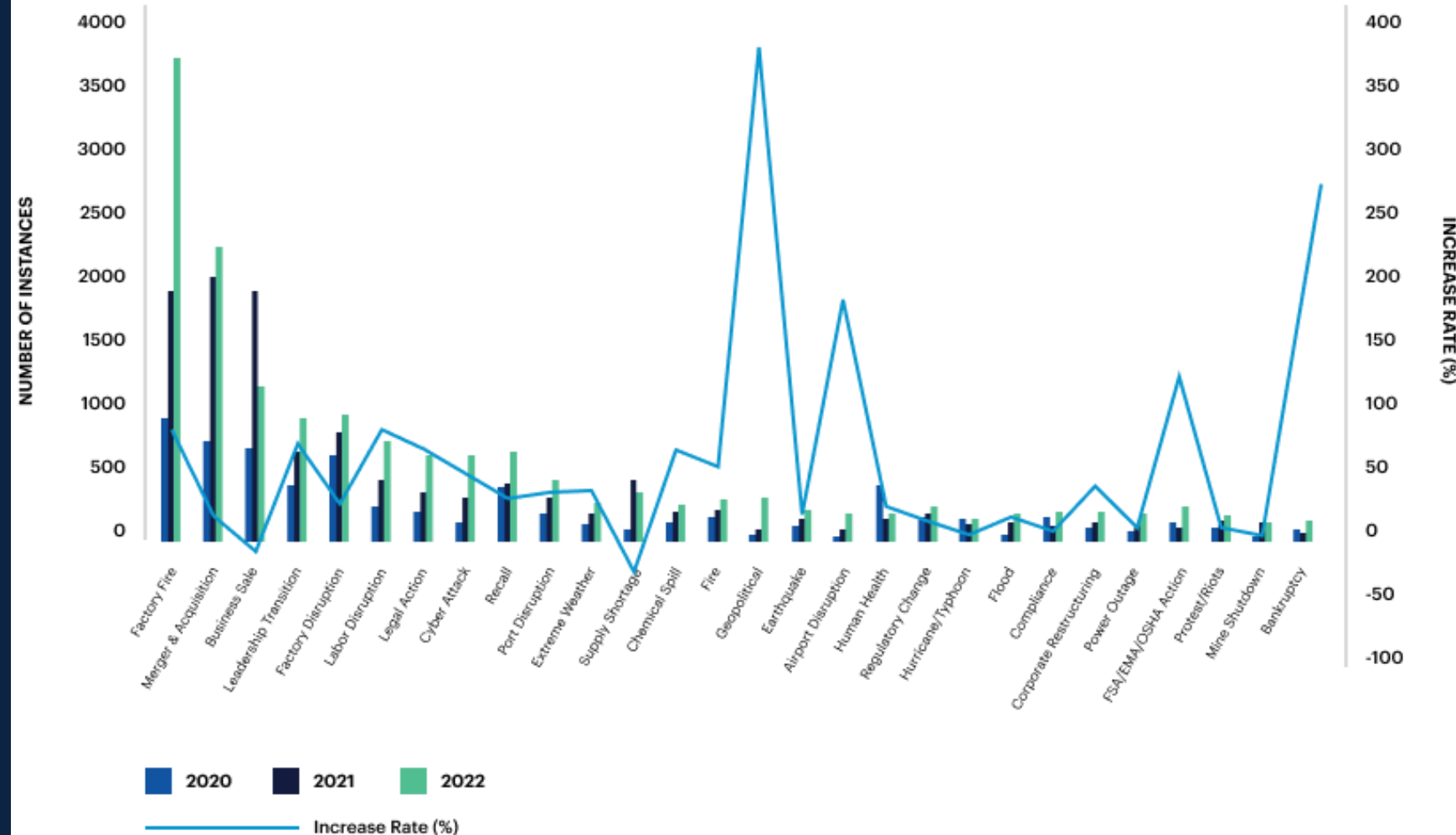
President of DOD, Federal, and
Government Division

THE PERFECT STORM

Multiple waves intersecting through the supply chain ecosystem

- COVID-19: Still disrupting global supply chains
- Russia/Ukraine War
- Shanghai factory and port shutdowns
- Extreme and widespread demand shifts
- Dozens of large factory fires
- Commodity shortages
- Logistics / Transportation Risk
- Forced Labor Act/ESG regulations
- Price increases and inflation
- Labor movement and shortages (across the skills spectrum)
- High incidence of factory fires, chemical leaks due to shortcuts in safety measures during pandemic lockdowns

EventWatch^{AI} News (By Risk Area)



Commodity Volatility

Commodity

Quant Price Forecast - Trend

Estimated Duration ⓘ

Quant Price Forecast - Table

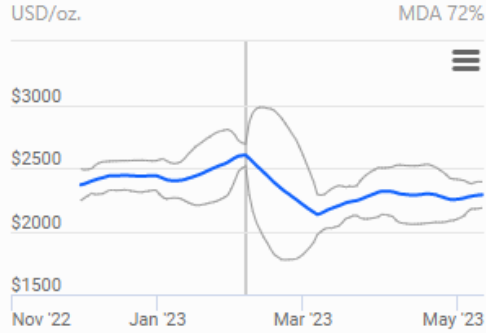
Aluminum

Lower Supply Higher Price

Event: Supply And Demand Balance

Event Sub category: Demand Decrease

18 Jan 2023 4:04 PM



- 18 Jan ● Lower Supply Higher Price
Within 30 days driven by Higher Inflation
- 15 Jan ● Lower Supply Higher Price
Within 30 days driven by Raw Material Disruption
- 10 Jan ● Lower Demand Lower Price
Within 10 days driven by Lower Consumption

[View More](#)

	Lowest Possible Price	Predicted Price	Actual Price	Highest Possible Price	Insights
Past 90 days			\$2222		
Past 60 days			\$2477.5		
Past 30 days			\$2295.5		
Current			\$2524.5		Right time to w...
30 days	\$2132.66	\$2269.64 ↓		\$2249	
60 days	\$1973.83	\$2259.69 ↓		\$2565.35	
90 days	\$2174.4	\$2293.36 ↓		\$2359.58	

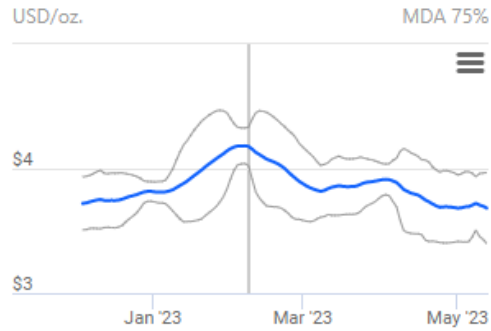
Copper

Higher Demand Higher Price

Event: Supply And Demand Balance

Event Sub category: Demand Increase

23 Jan 2023 12:33 PM



- 23 Jan ● Higher Demand Higher Price
Within 1 days driven by Higher Consumption
- 20 Jan ● Lower Demand Lower Price
Within 1 days driven by Balance competition
- 19 Jan ● Lower Supply Higher Price
Within 10 days driven by Geopolitical Unrest

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	Lowest Possible Price	Predicted Price	Actual Price	Highest Possible Price	Insights
Past 90 days			\$3.46		
Past 60 days			\$3.81		
Past 30 days			\$4.02		
Current			\$4.04		Right time to w...
30 days	\$3.63	\$3.96 ↓		\$3.95	
60 days	\$3.38	\$3.68 ↓		\$4.07	
90 days	\$3.43	\$3.46 ↓		\$4	

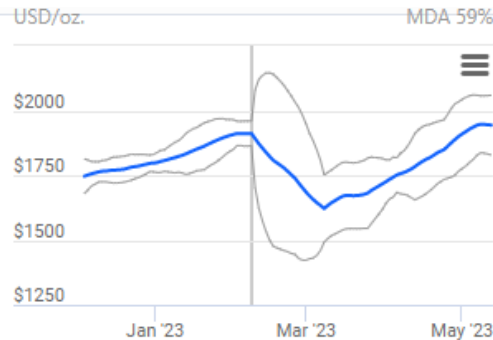
Gold

Lower Supply Higher Price

Event: Regulatory Change

Event Sub category: Regulation Update

02 Feb 2023 3:59 AM



- 02 Feb ● Lower Supply Higher Price
Within 60 days driven by Law & Regulation
- 25 Nov ● Higher Demand Higher Price
Within 60 days driven by Seasonal
- 18 Nov ● Higher Demand Higher Price
Within 90 days driven by Seasonal

[View More](#)

	Lowest Possible Price	Predicted Price	Actual Price	Highest Possible Price	Insights
Past 90 days			\$1627.3		
Past 60 days			\$1769.3		
Past 30 days			\$1872.7		
Current			\$1877.4		Maybe the right...
30 days	\$1544.36	\$1742.37 ↓		\$1704.74	
60 days	\$1739.93	\$1899.02 ↑		\$1863.05	
90 days	\$1901.07	\$1880.38 ↑		\$2043.1	

Challenges across the Semiconductor industry

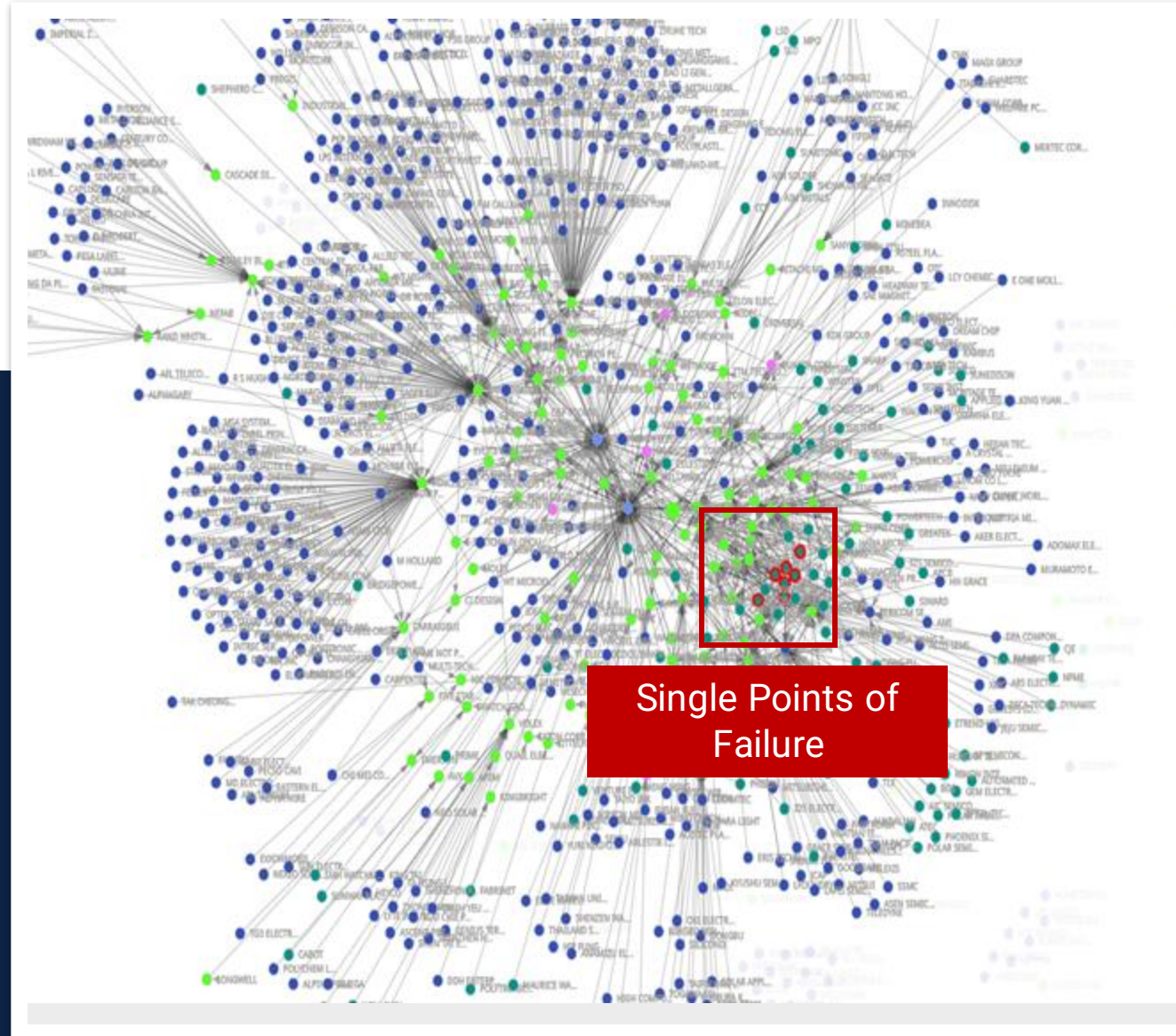
Reliance on semiconductors across applications –
90% of daily life is connected by devices

Cost (\$Bs) and delay (2-3yrs) to add capacity

Moore's Law – next gen manufacturing every 3 years

95%+ wafer fab capacity utilization,
little upside flexibility

Small number of players in the wafer fab &
equipment supply chain



Published: 15 March 2023 Written by Simon Glover

\$30m fashion imports stopped for UFLPA checks

Premium



[Home](#) > [Office of the Spokesperson](#) > [Press Releases](#) > Department of State Allocating \$100 Million in FY 2023 for CHIPS Act Projects

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Department of State Allocating \$100 Million in FY 2023 for CHIPS Act Projects

FACT SHEET

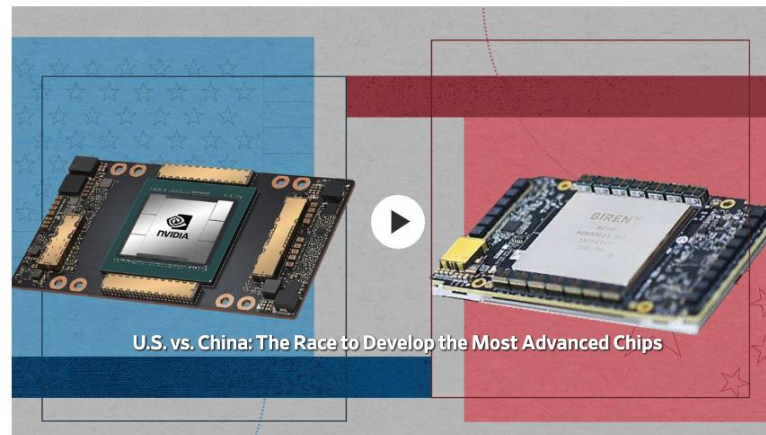
OFFICE OF THE SPOKESPERSON

MARCH 14, 2023

BUSINESS

U.S. Aims to Chart New Course for Chip Industry

\$53 billion plan, a mix of subsidies and conditions, will be a test of U.S. industrial policy



U.S. vs. China: The Race to Develop the Most Advanced Chips

After working for years to catch up on U.S. technology, China has developed a chip that can rival Nvidia's powerful A100. WSJ unpacks the processors' design and capability as the two superpowers race for dominance in artificial intelligence. Illustration: Sharon Shi

By [Yuka Hayashi](#) [Follow](#) and [Asa Fitch](#) [Follow](#)

Updated Feb. 28, 2023 6:06 pm ET

Inflation Reduction Act Tamps Down on Prescription Drug Price Increases Above Inflation

UK car sales rise by a quarter as industry recovers from chip shortage

Registrations hit 74,400 in seventh successive month of growth, with electric cars accounting for 16.5%

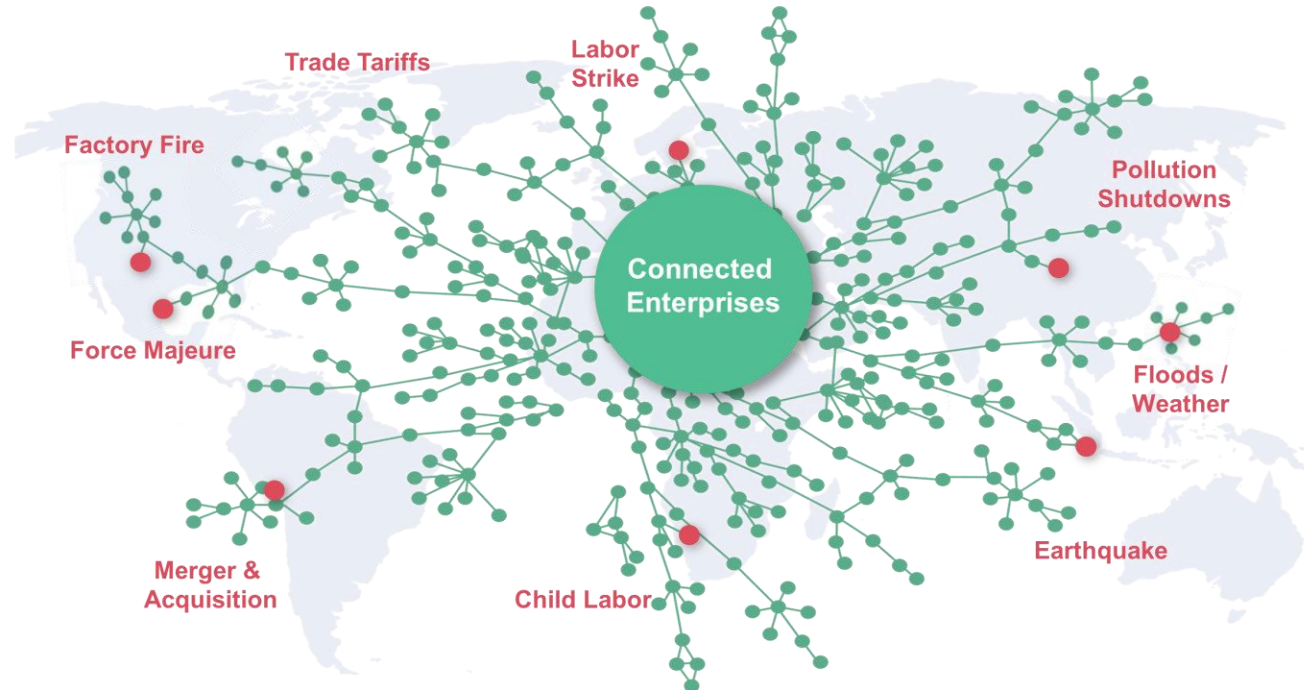
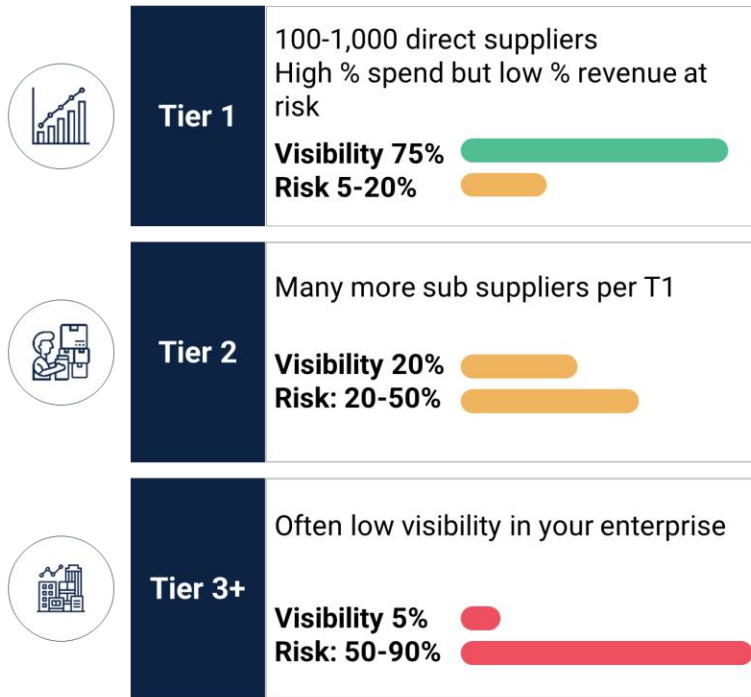
2 minute read · March 13, 2023 10:38 PM EDT · Last Updated 2 days ago

Japan, Canada in talks over collaboration in battery metals supply chain

Reuters

Supply Chain Visibility is Imperative

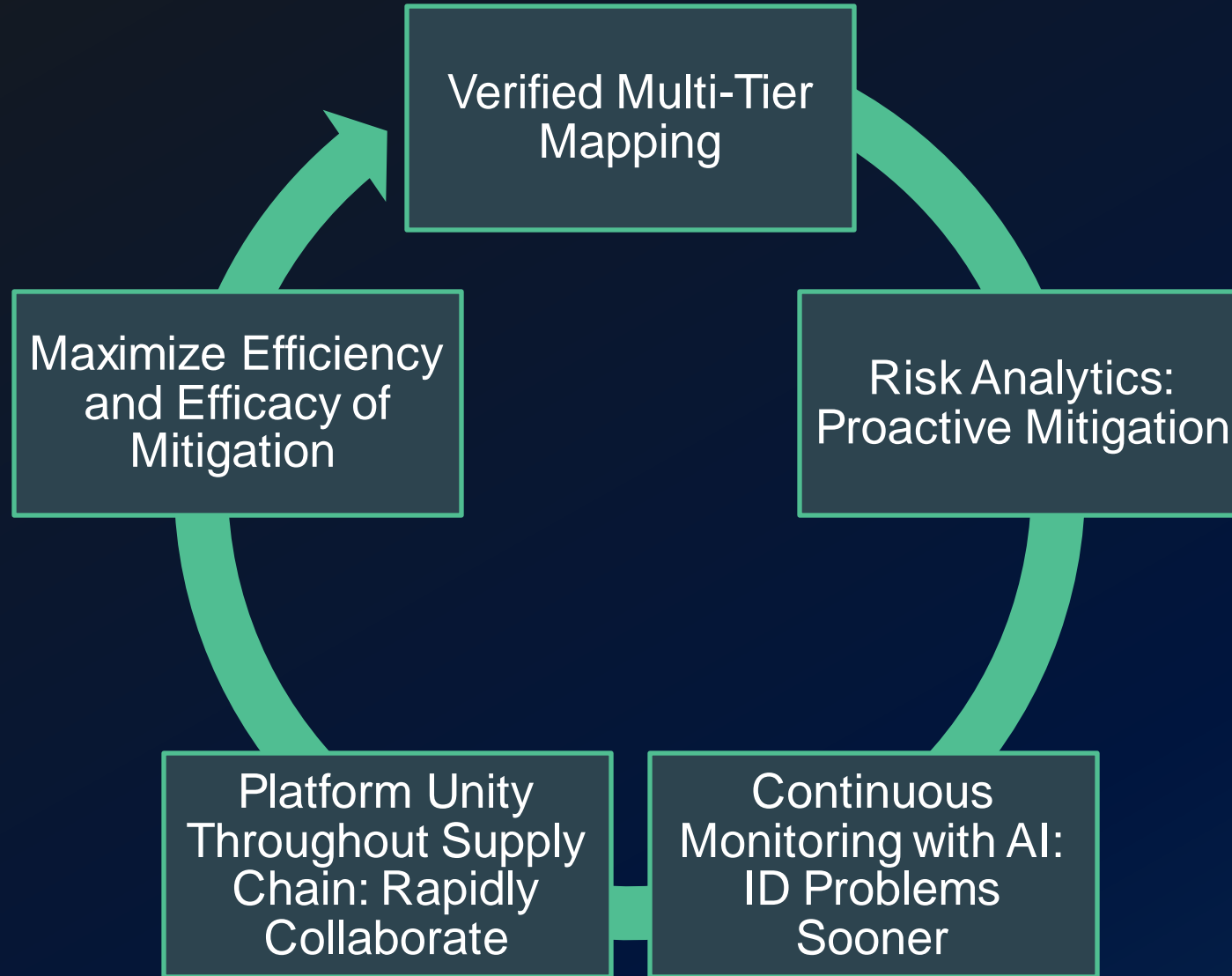
Many failure points and disruptions affect the entire supply chain network



Global Supply Chain Risk increased 87% in 2021 → Enterprises can't afford to stay reactive

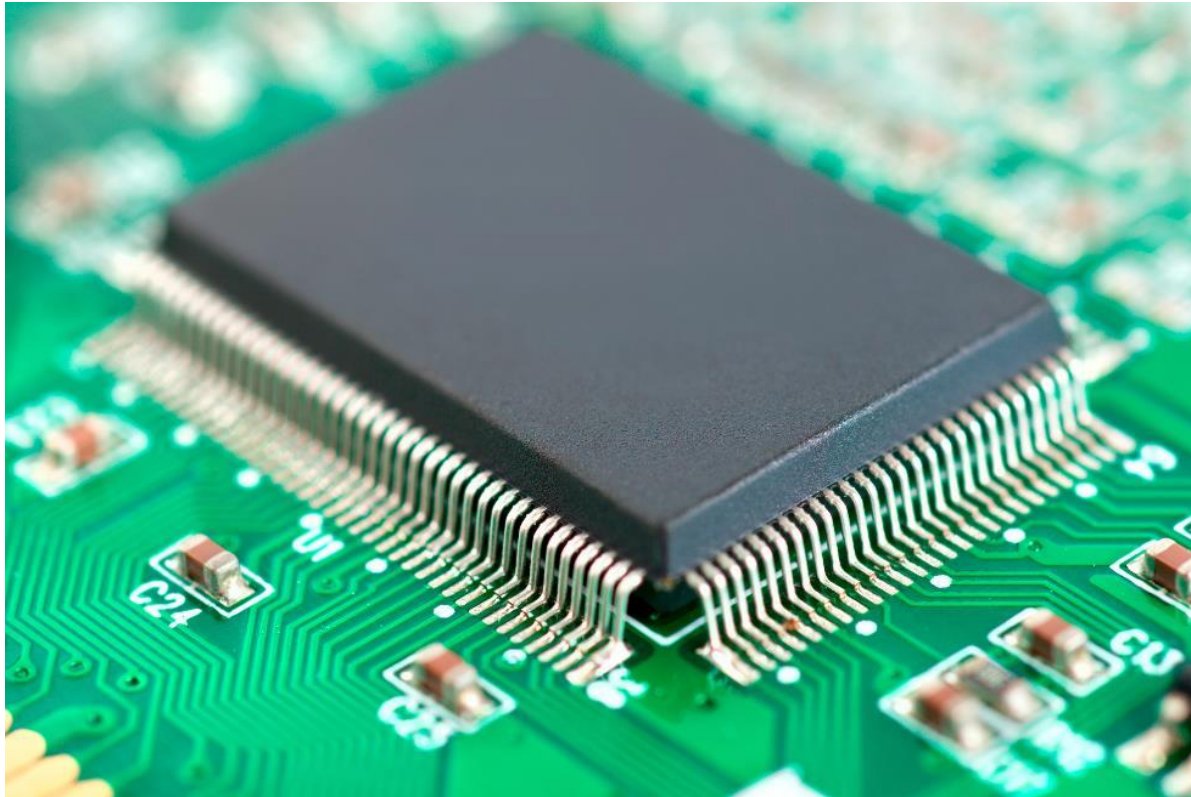
A **2021 McKinsey survey** revealed that only 2% of companies had some visibility beyond the second tier of their supply chains.

A Framework For SCRM Success



Lessons from the Trenches

Navigating the Pandemic with no Supply Chain Disruptions



650 suppliers mapped, down to tier 2
Location knowledge of 7,500 parts

15 minutes to isolate which suppliers were impacted

12 months of supplies shipped prior to shutdown

100% On Time Delivery achieved despite disruptions

Outcome Example – Semiconductor Coolant (perfluoroalkyl and polyfluoroalkyl substances (PFAS))

Fourth Update: Major Impact to Semiconductor Manufacturers Expected Amid the Closure of the 3M Plant in Zwijndrecht, Belgium

Apr 5, 2022



Solvay – 2nd Largest Supplier and Resin Supplier to DoD Alerts Customers of Price Increase and Schedule Delays

Third Update: 3M Coolant Plant to Face Disruptions in Zwijndrecht, Belgium

Apr 1, 2022



Second Update: 3M Plant Remains Partially Idle After PFAS Regulations Tighten in Zwijndrecht, Belgium

Mar 16, 2022



Update: 3M Temporarily Shuts Production in Zwijndrecht, Belgium

Oct 29, 2021



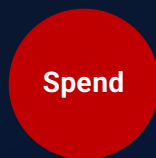
3M Faces Possible Shutdown for Pollution in Zwijndrecht Belgium

Ideal Time to Act

Oct 26, 2021

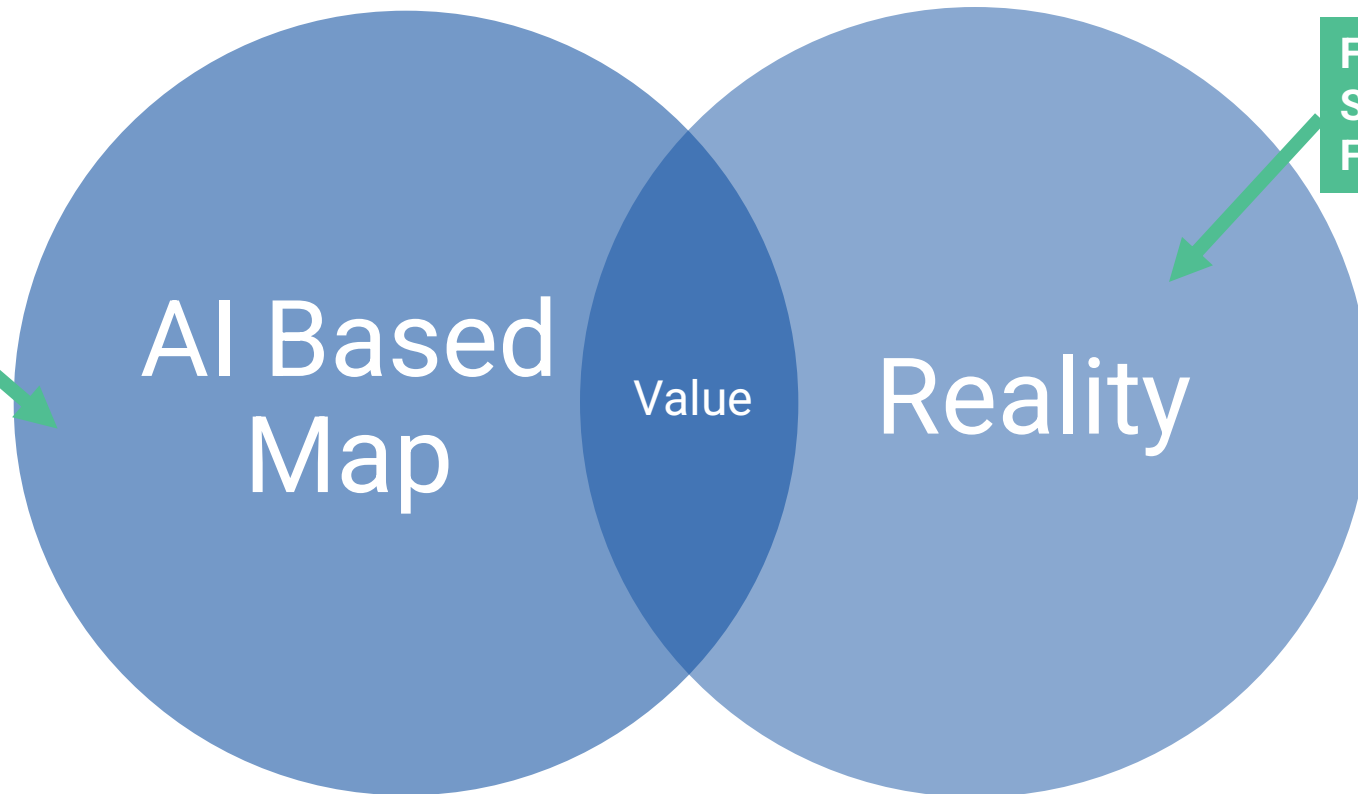


Expand Our Focus



Mapping Supply Chains with AI Alone is Unwise

Wasted Effort
– False
Positives



False Sense of
Security –
False Negatives

- How will AI mapping be validated?
- What is the first step in forcing a change?

VALUE – Filling Gaps and Investigation

RESPONSIVE WORKFLOW

DETECT

PREDICT

COLLABORATE

**PROTECT AND
WIN MARKET
SHARE**



MAP

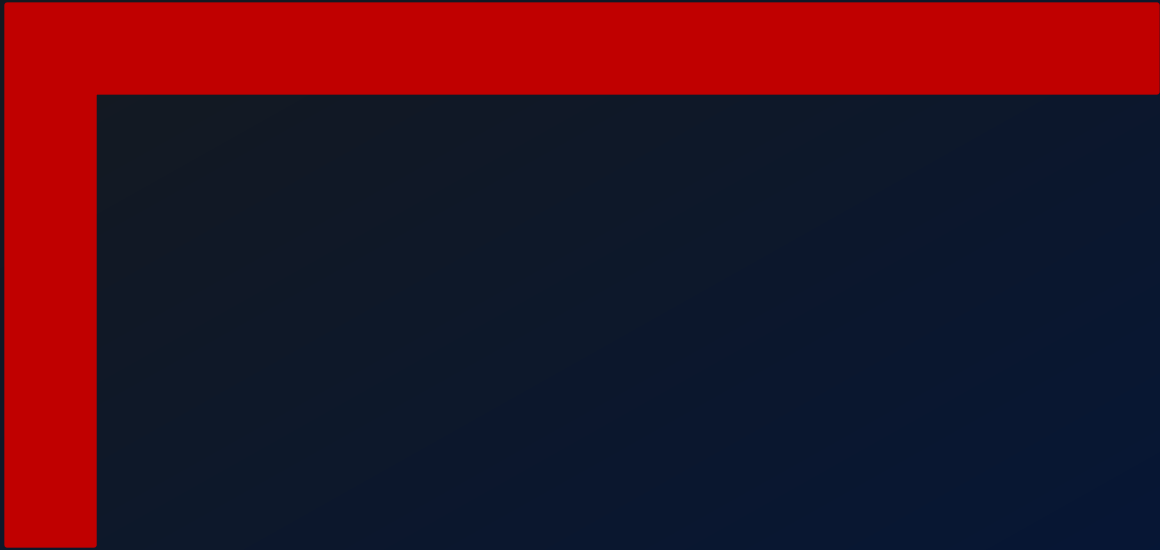
ASSESS

PRIORITIZE

**MAKE
INFORMED
CHOICES**

PROACTIVE WORKFLOW

Looking forward



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