DMRG AI

Agentic AI for Supply Chain Resilience

Turning global supply-chain uncertainty into resilience, foresight, and competitive advantage.

Who We Are

DMRG (Data Mining and Risk Guidance) Technologies is an AI-driven startup pioneering supply chain intelligence for semiconductors, electronics, manufacturing, aerospace, and defense.

Our flagship **DMRG Terminal** embeds real-time supplier traceability, material risk detection, and resilience scoring directly into the design process.

We leverage **agentic AI, large language models, and global trade data** to map dependencies from components to raw materials—flagging risks like rare earth exposure, supplier concentration, or export controls **before they disrupt production**.

Dr. Ilya Jackson

Co-founder & Supply Chain AI Expert

MIT researcher with computational engineering and advanced analytics background. Led cutting-edge work on digital twins, predictive analytics, and supply-chain resilience.

Nan Wang

Co-founder & Electronics Sourcing Expert

10+ years of experience in electronics sourcing and procurement from Rivian and Shell. Master's degree in Supply Chain Management from MIT, along with dual degrees in engineering and business from the National University of Singapore.

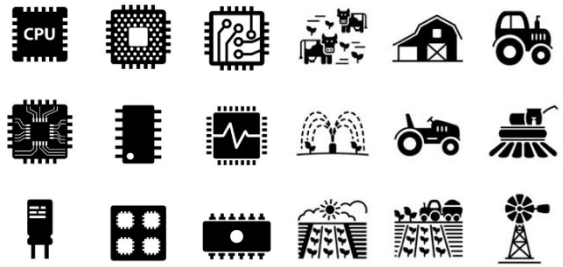
The Supply Chain Challenge

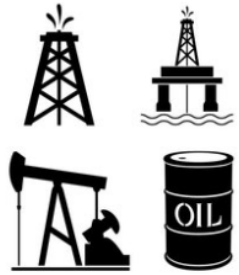
What happens if an Upstream Supplier is Disrupted?

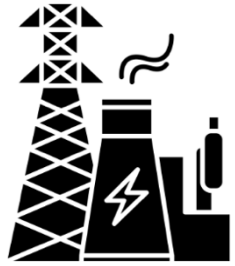
- Recall the example of Evonik Industries in 2011, which brought down the entire auto industry.
- The global automotive industry was hit hard by a semiconductor shortage during the COVID-19 pandemic.

BBC NEWS Fire in small German town could curb world car production

THE WALL STREET JOURNAL.
Global Chip Crisis Hits Auto Makers Hard







- **Upstream Industries (Source)**: To what extent is a specific industry dependent on other industries in different countries?

Oil and Gas Industry

- **Downstream Industries (Supply)**: To what extent are other industries in different countries dependent on a specific industry?

Our Solutions

Our Solution

Agentic AI, Data Scraping and Network Science for Supply Chain Analytics

Data Sourcing

10-K audit reports
Earnings call

FT FINANCIAL TIMES Bloomberg

yahoo! finance REUTERS

UN Comtrade Database

bea Bureau of Economic Analysis U.S. DEPARTMENT OF COMMERCE OEC

AI-enabled Data Fusion

Google APIs

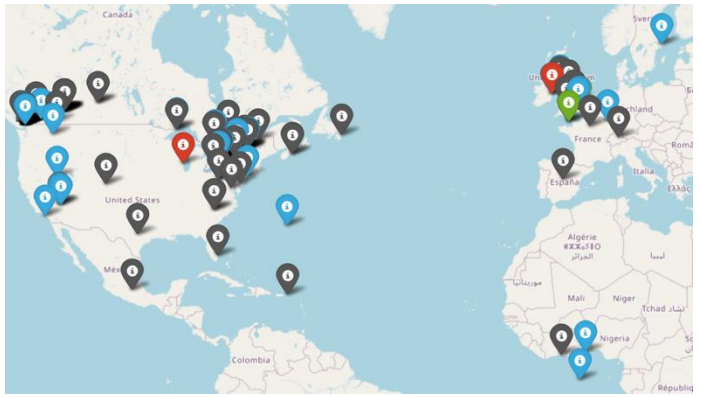
ScrapFly

PostgreSQL

NetworkX
Network Analysis in Python

Modeling Capabilities

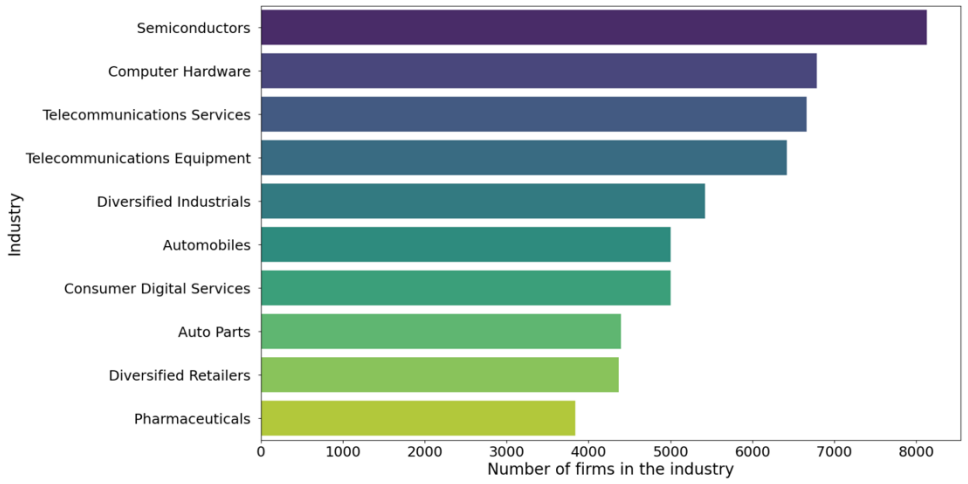
Supply Chain Illumination
Connectivity Analysis
Cascading and
Compounding Threats

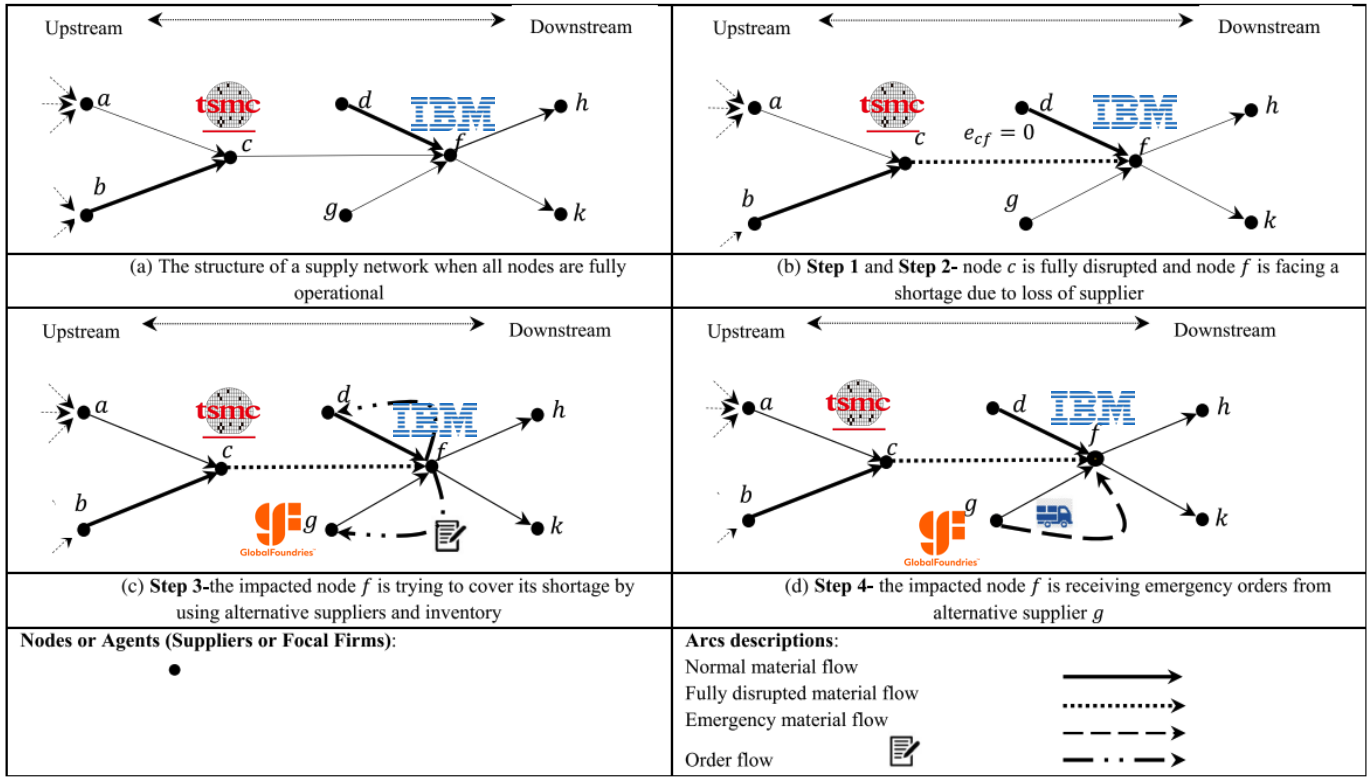


Our Solution

Agent-based Global Supply Chain Model

Unique firms: 80K
Relations: 250K
Countries: 93
Industries: 278





(a) The structure of a supply network when all nodes are fully operational

(b) **Step 1** and **Step 2-** node c is fully disrupted and node f is facing a shortage due to loss of supplier

(c) **Step 3-**the impacted node f is trying to cover its shortage by using alternative suppliers and inventory

(d) **Step 4-** the impacted node f is receiving emergency orders from alternative supplier g

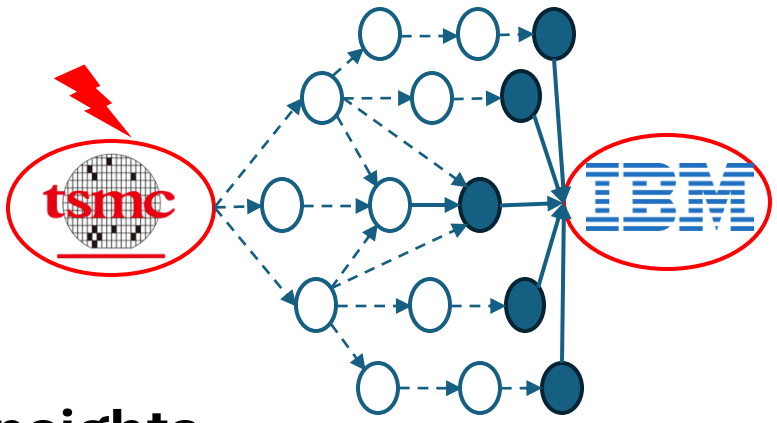
Our Solution

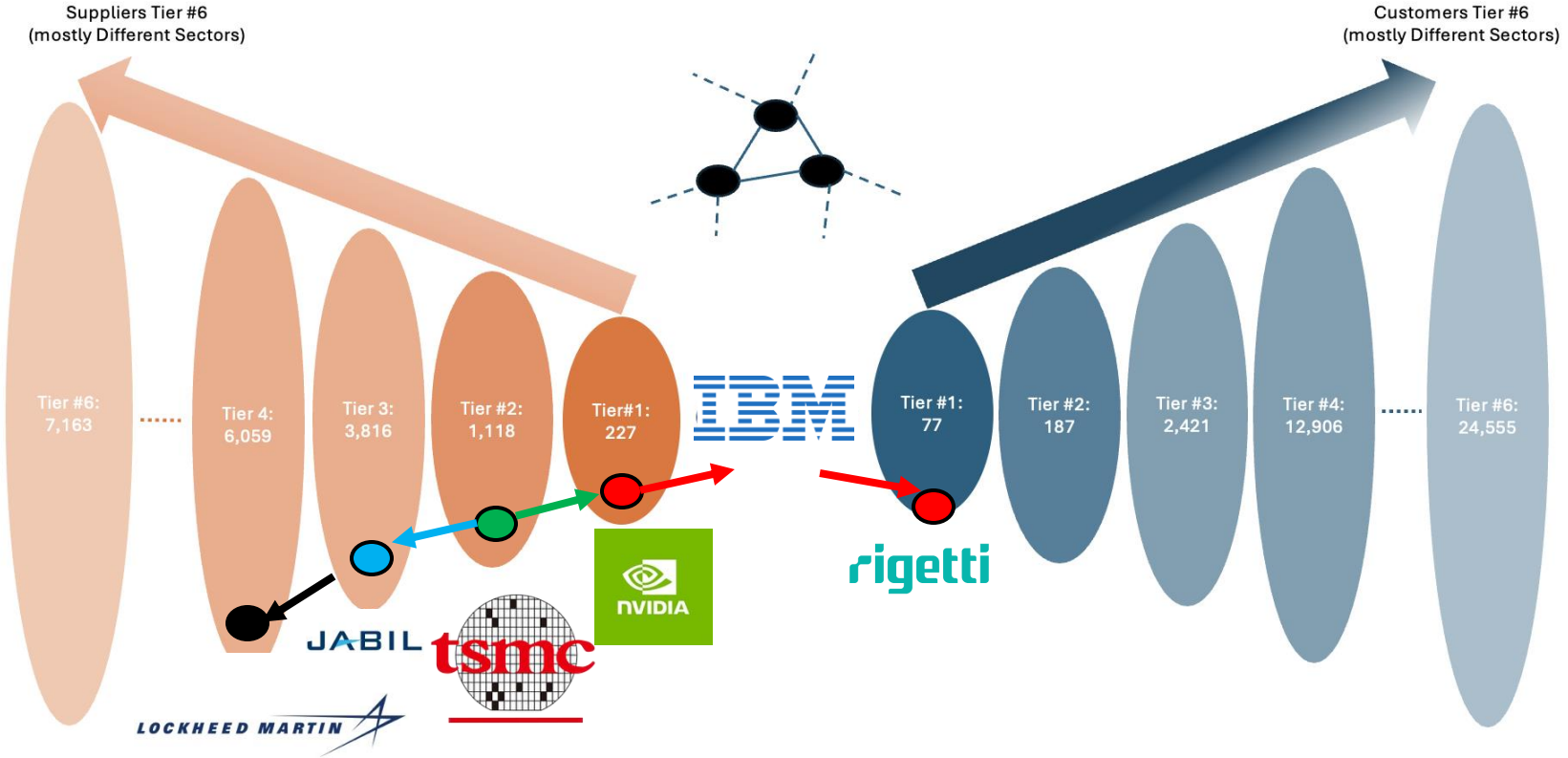
Deep-Tier Supply Chain Visibility

The Economist

Business | Semiconductors

TSMC walks a geopolitical tightrope



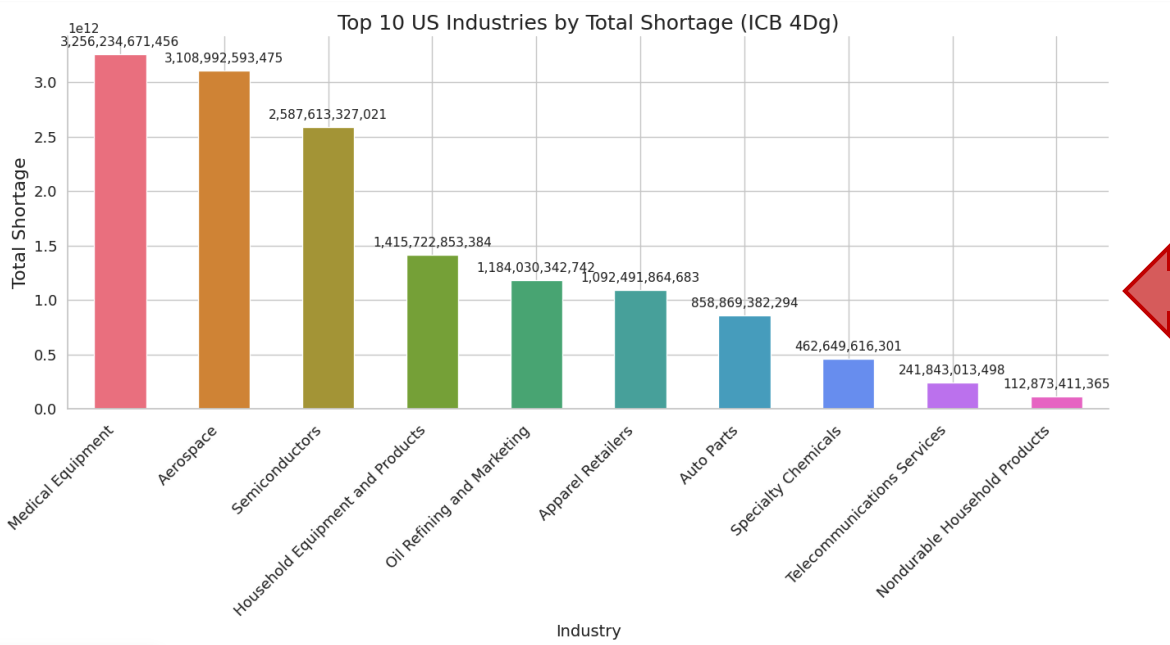


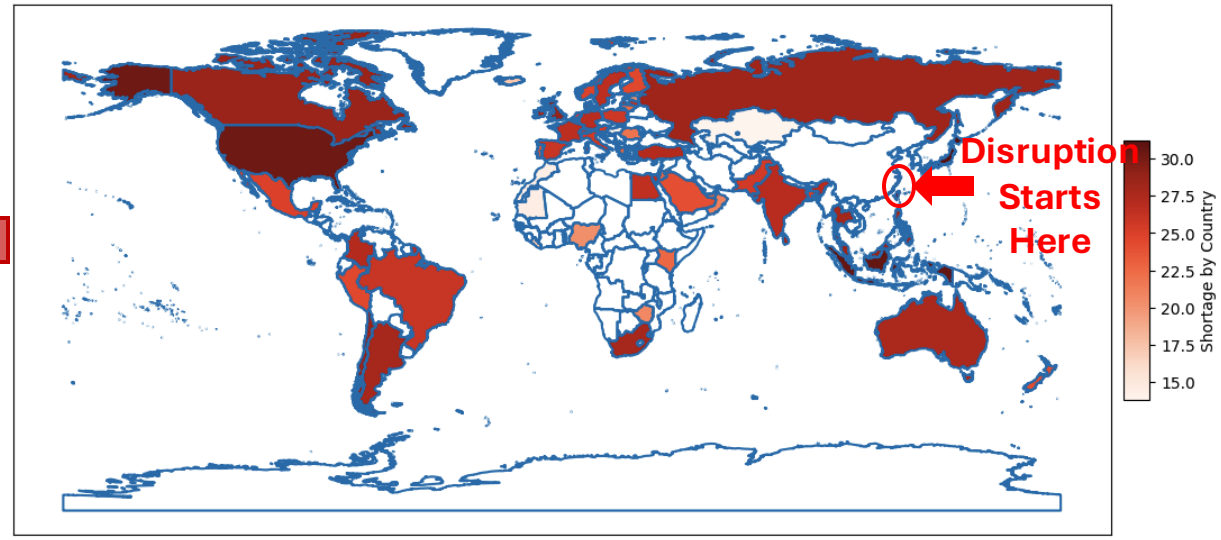
Insights

- Amid global tensions and the risk of conflict around Taiwan, disruptions in the semiconductor supply chain involving TSMC could have far-reaching impacts across industries.

Our Solution

Implications of the Cascading Disruptions and “Chain Reactions”





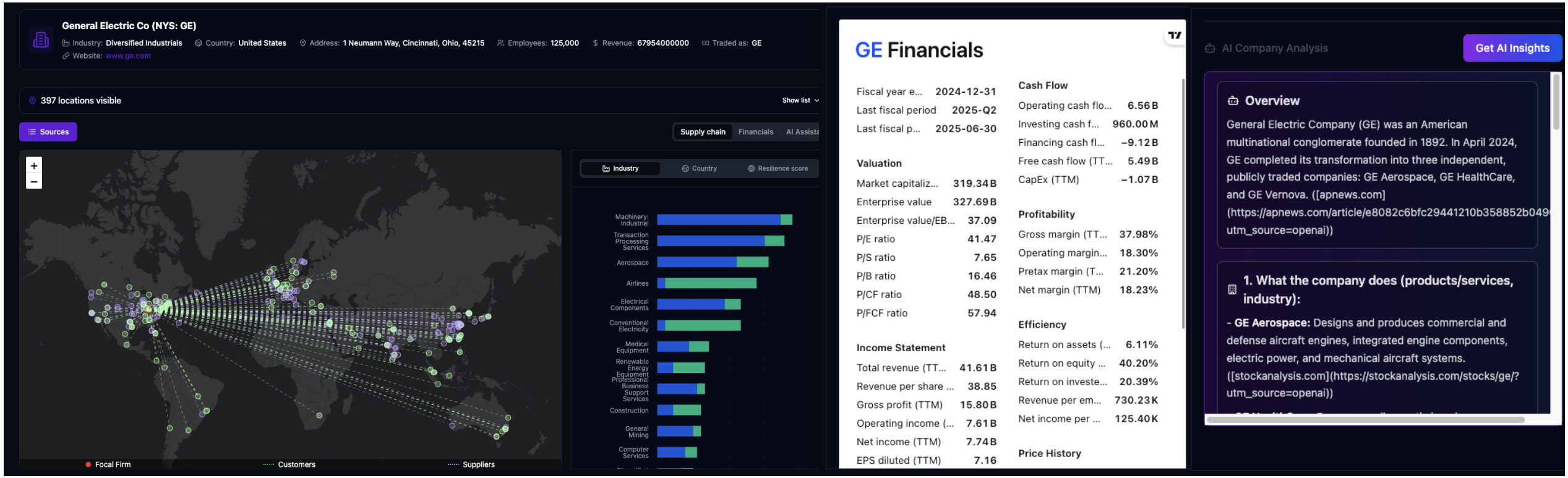
TSMC as a Single Point of Failure: Over **90% of the world’s most advanced chips** are produced by TSMC in Taiwan — a massive geopolitical and operational bottleneck

Our Products

Our Products

DMRG Terminal: Project Illuminatus

Design-stage supply-chain illumination & stress-testing
(TRL-3→4; AFWERX/NASA Ignite focus)

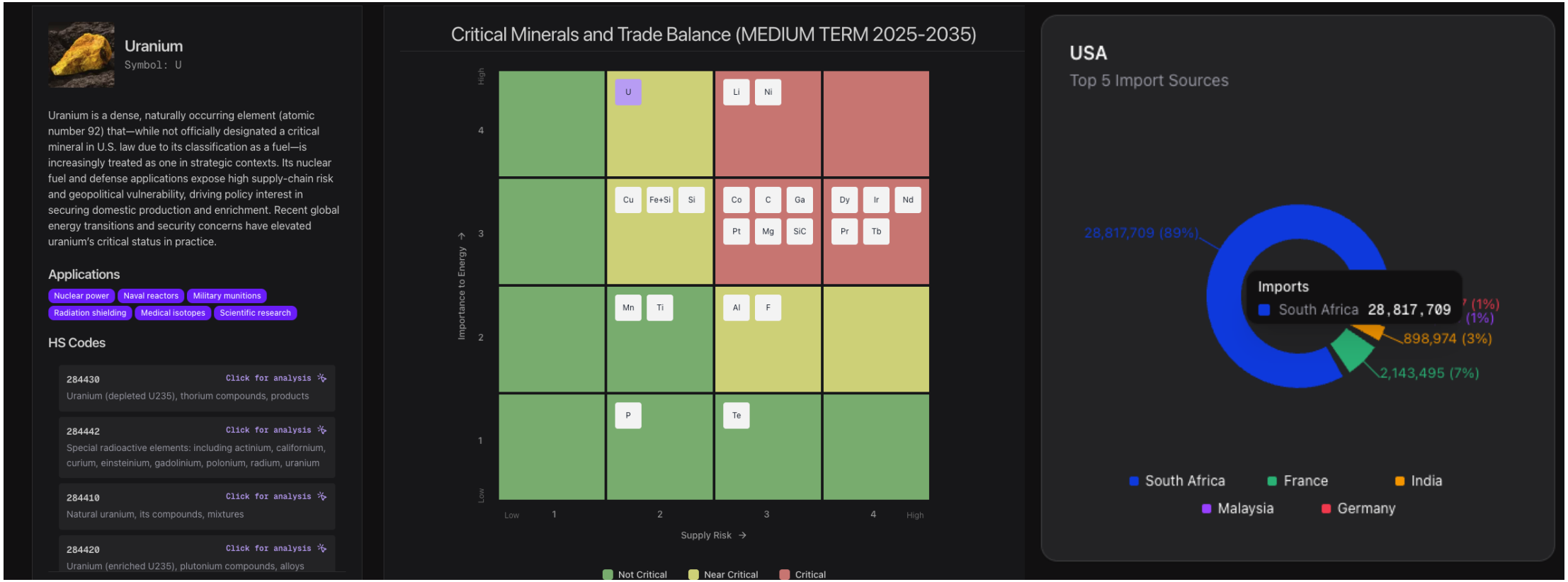


Our Products

Critical Minerals Trade Analytics

Harmonized System (HS)-code + firm-level graphs to reveal chokepoints & policy risks (DOE RFI lineage)

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

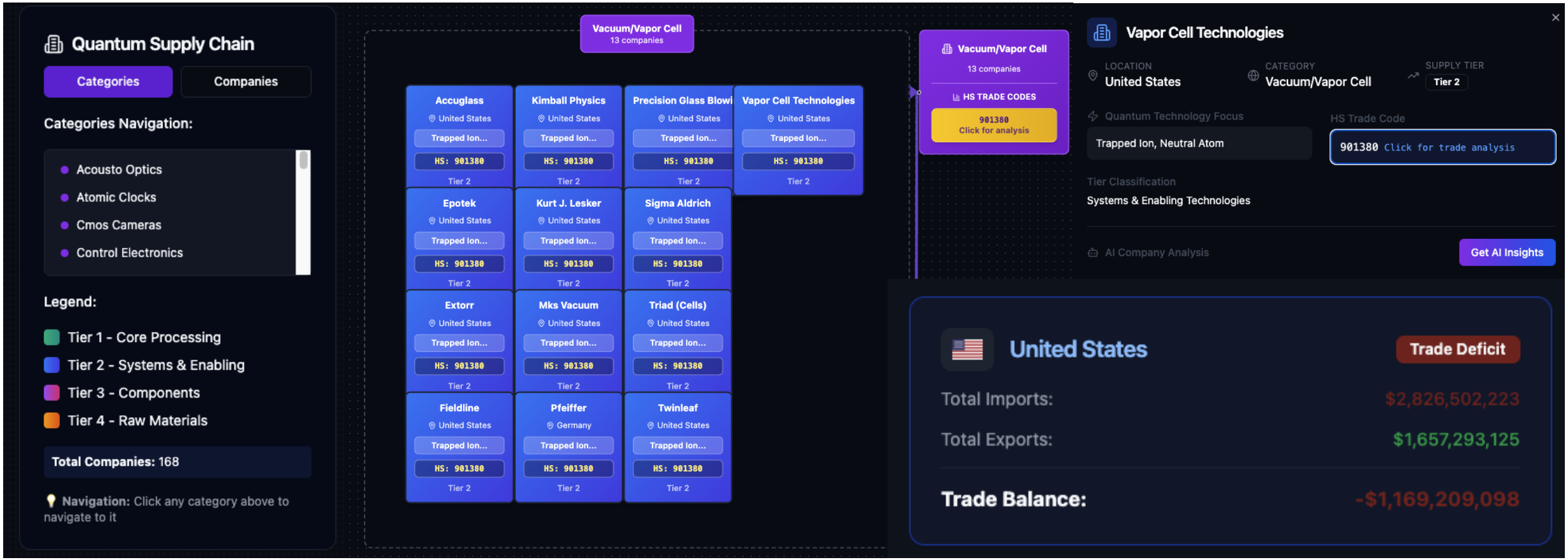


Our Products

Quantum Supply-Chain Mapping

End-to-end visibility of quantum hardware stacks, cryogenics, optics, and rare materials.

⟨quantum|gov⟩



The Road Ahead

- Advance platform from **TRL-3 → TRL-6** with agency pilots (DOD/DOW, NASA, DOE)
- Expand from **aerospace & defense → semiconductors, energy, manufacturing**
- Build the **“Bloomberg Terminal for supply chains”** with SaaS rollout in 2026–2027
- Seeking **pilot partners, program champions, and co-development collaborators**

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