

Seeing What Others Can't: The Future of Multi-Tier Supply Chain Intelligence

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The World Your Business Depends On

Three Major Vectors for Risk Impact

Production & Sales

Suppliers behind the products you make and sell. When a Tier 3 components maker floods, your factory stops.

Capital Projects

Contractors and sub-contractors behind your strategic investments. When a PM goes bankrupt mid-build, construction stops.

Critical Operations

IT providers, shared services, outsourced functions. When a sub-tier vendor goes down, your systems follow.

In every vector risk doesn't live
at Tier 1 alone.

It lives deeper.

95%

of organizations have visibility
into Tier 1 risks.

McKinsey

85%

of major supply chain incidents
originate in Tier 2 and beyond.

Dun & Bradstreet

42%

can see into Tier 2 or beyond

McKinsey

The Visibility Paradox

**You can see the surface.
The risk is in the hull.**

What's Actually at Stake

Four impact categories. Four boardroom-ready numbers.

Financial Exposure

45% of profit

at risk from disruptions lasting over a month. *McKinsey*

Regulatory Penalty

5% of global annual turnover

EU CSDDD maximum fine. CBP denied \$1.73B in shipments under UFLPA in '24

Operational Disruption

\$5.4B lost

from one faulty CrowdStrike update.

Reputational Risk

8% of annual revenues

average cost of supply chain disruptions in 2024

This is a boardroom issue.

The question is whether the board finds out proactively – or reactively.

News Article

US Facing ADHD Drug Shortage Crisis

PUBLISHED MAR 26, 2026 AT 11:39 AM EDT UPDATED MAR 26, 2026 AT 11:40 AM EDT

According to research by [JAMA Health Forum](#), cited by the [Center for Infectious Disease Research and Policy \(CIDRAP\)](#) at the University of Minnesota, shortages of ADHD medications—including widely prescribed stimulants such as amphetamine-based and methylphenidate-based drugs—highlight deeper structural weaknesses in the U.S. pharmaceutical supply chain.



Report links ADHD drug shortage in US to global supply chain disruptions

Laine Bergeson, March 23, 2026
Topics: [Resilient Drug Supply](#)



34% of the active ingredients produced by a single facility

64% by a three facilities

10M US adults with ADHD struggled to fill prescriptions during the shortage.

The Multi-tier Regulatory Wave Is Here

Every regulation below requires multi-tier visibility.
None can be satisfied by Tier 1 data alone.

ESG & Due Diligence

CSDDD

EUDR

EUBR

CBAM

Sustainability Reporting

TCFD

ISSB

SBTi

CDP / GRI

Cyber & Resilience

DORA

NIST / CIS

ISO 27001

HIPA

Forced Labor & Trade

UFLPA

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ESG & Due Diligence

CSDDD

Human rights & environment across full supply chains; fines up to 5% of global turnover

EUDR

Full product traceability to origin; non-compliance triggers EU product bans

EUBR

Battery lifecycle & sustainability; non-compliance blocks EU market access

CBAM

Carbon pricing on imports; complex cross-tier reporting obligations

Sustainability Reporting

TCFD

Climate-related financial risk reporting; investor pressure for inadequate disclosure

ISSB

Global sustainability reporting standards for investors

SBTi

Emissions targets aligned with climate science; impacts ESG ratings

CDP / GRI

Public environmental disclosure and reporting; scoring influences investor decisions

Cyber & Resilience

DORA

ICT third-party risk across full vendor chains; in force Jan 2025

NIST / CIS

Cybersecurity benchmarks; gaps expose organizations to breach liability

ISO 27001

Information security management; increasingly required for enterprise contracts

HIPAA

Health data protection; severe fines for sub-tier vendor breaches

Forced Labor & Trade

UFLPA

Rebuttable presumption for Xinjiang-linked goods; \$1.73B denied in 2024

Enforcement extends into Southeast Asian sub-tier suppliers

Coverage expanding — watch-listed regions growing annually

No Tier 1 attestation satisfies sub-tier traceability requirement

Two distinct but equally crippling problems.

Why Multi-Tier Mapping Is Hard

Opacity
Relationships
undisclosed;
no incentive

Relevance
Does the sub-tier
relationship have
anything to do with me?

What the Market Has Tried (And Why It Fell Short)

Supplier Surveys

Lack of Incentive
Protective of relationships

Import/ Export Data

Coverage gaps
Identity ambiguity
Relevance blindness
Noise at scale

Spend Analytics

Ignores small but high-impact players

Managed Services

Manual
Slow
Expensive

Solutions that address discovery without addressing relevance don't create resilience; they just create work.

The Coverage Illusion

Scale without relevance is noise at industrial strength.

400M+

Interos
suppliers monitored

10B

Exiger
supply chain records

500K+

Resilinc
supplier database

2B+

S&P Global
shipment records

The question is not: "How many relationships are in your database?"

The question is: "How many of those relationships are relevant to MY supply chain, MY products, MY risk exposure?"

A map with 18 billion relationships that can't tell you which 500 matter to you
is not a solution — it's a more sophisticated version of the problem.

What “Good” Actually Looks Like

This is the standard Apex is building to.

Relevant

**Continuously
Updated**

Actionable

**Economically
Sustainable**

**Built with
Engagement**

Introducing

apexanalytix's Framework for Multi-tier Mapping

A three-pillar approach.

*The first pillar is what makes
the other two matter.*

Pillar 01 • Risk on Revenue & Engagement Risk

Connects every supplier to actual business impact before any map is built. The prioritization engine.

Pillar 02 • AI/ML-Driven Map Construction

Automated sub-tier mapping through data ingestion, graph modeling, and continuous inference at scale.

Pillar 03 • Supplier Engagement Engine

Three mechanisms that dismantle every barrier to transparency: effort, self-interest, confidentiality.

Pillar 1 - Risk on Revenue & Engagement Risk

The foundational differentiator: prioritization built in from day one.

Before any map is built, connect suppliers to the enterprise's actual business context:

The CEMEX Story

Spend rank
is not a proxy for
business impact

Engagement Impact

What is the supplier's relative criticality to the success of a capital project or operations.

Risk on Revenue

What would disruption cost the business in real dollars, tied to real sales orders?

Combined with a risk assessments, this determines which suppliers to map first.

Pillar 2 – AI/ML Map Construction

The foundational differentiator: prioritization built in from day one.

Only relevant relationships get mapped.

Auto-generate initial BoM & Supplier graphs based on ingested BoMs and Approved Vendor List from the ERP or Production Systems.

AI Mapping Agent infers sub-BoMs & sub-tier suppliers based on any available data sources.

Risk auto-update and roll-up to set supplier engagement priorities.

Pillar 3 – AI/ML Map Construction

The foundational differentiator: prioritization built in from day one.

CIA
Information
Gathering
Technique

Elicitation

Mechanism 01
AI-Powered Elicitation

Lowering the Effort Barrier

Mechanism 02
Reciprocal Risk Intel

Turning Self-Interest into an Incentive

Mechanism 03
Protected Data Mode

Resolving the Confidentiality Barrier

The apex Difference

Old approach vs. Apex – five dimensions that define what better looks like

Dimension	Old Approach	Apex
Coverage	Generic database sold to every buyer identically	Maps constructed around your specific supplier relationships, products, and business context
Relevance	Every sub-tier relationship surfaced equally. Analyst teams overwhelmed with noise.	Relevance filtering scores every relationship against your actual exposure
Engagement	Cold surveys. Low response rates. No incentive for supplier participation.	Elicitation, reciprocal intelligence, and protected data mode drive willing participation
Speed	Point-in-time snapshots that decay from day one. Months to refresh.	AI/ML-driven maps that refresh continuously as new signals emerge
Actionability	Data without business context. Risk without consequence modeling.	Risk on Revenue ties every alert to a business impact. Prioritization built in

Let's Build What Comes Next — Together

For Clients:

Become a design partner.

For Potential Clients:

Start a conversation..

For Analysts:

Let's hear your take and collaborate to make it better.

apexanalytix.com

Contact us to continue the conversation