

EDM Webinar

Reimagining Supply Chains with AI and Trusted Data

A conversation with



Moderator: Kyle Morton
COO
EDM Association



Christian Farra
Global Supply Chain
Practice Lead
Informatica



Christian Farra

Practice Lead – Digital Supply Chain @Informatica

- 19+ years in Data Management
- Industry Focus: Manufacturing, Retail, Automotive
- Trusted Advisor to top manufacturers across Europe
- Passionate about making data useful, actionable, and.... finally fun.



Most likely to say:

“Let’s clean the data before we blame AI”

Agenda

- 1 Setting the Stage – Supply chain complexity and the need for data transparency
- 2 The Data Challenge – Why fragmented and poor-quality master data blocks visibility
- 3 Use Case Deep Dive – Real-world examples of data-driven supply chain issues
- 4 AI as an Enabler – How trusted master data unlocks intelligent capabilities
- 5 Wrap-Up & Takeaways

How do you deal with the unplanned?

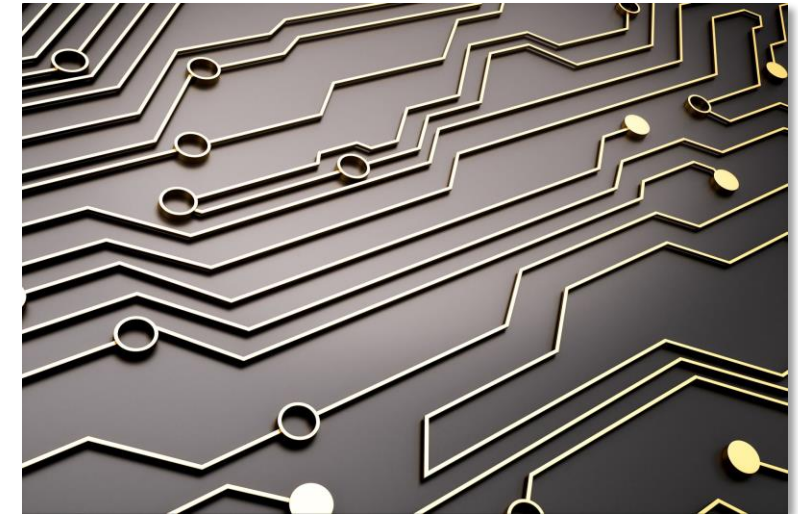
How do you stay agile in the face of chaos?



The viral trend has led to a surge in demand for Dubai Chocolate and pistachios.



Hurricane Milton forced key ports in Florida to close.



Tariffs impact procurement costs, e.g. semiconductor industry

The visibility Gap

The Visibility Gap is Real!



A 2024 McKinsey survey shows that only 9% of organizations report being fully compliant with upcoming transparency regulations across deep-tier suppliers.

Source: [McKinsey & Company \(2024\), Supply Chain Risk Survey](#)

A McKinsey & Company survey found that 45% of respondents either had no visibility into their upstream supply chain or could only see as far as first-tier suppliers.

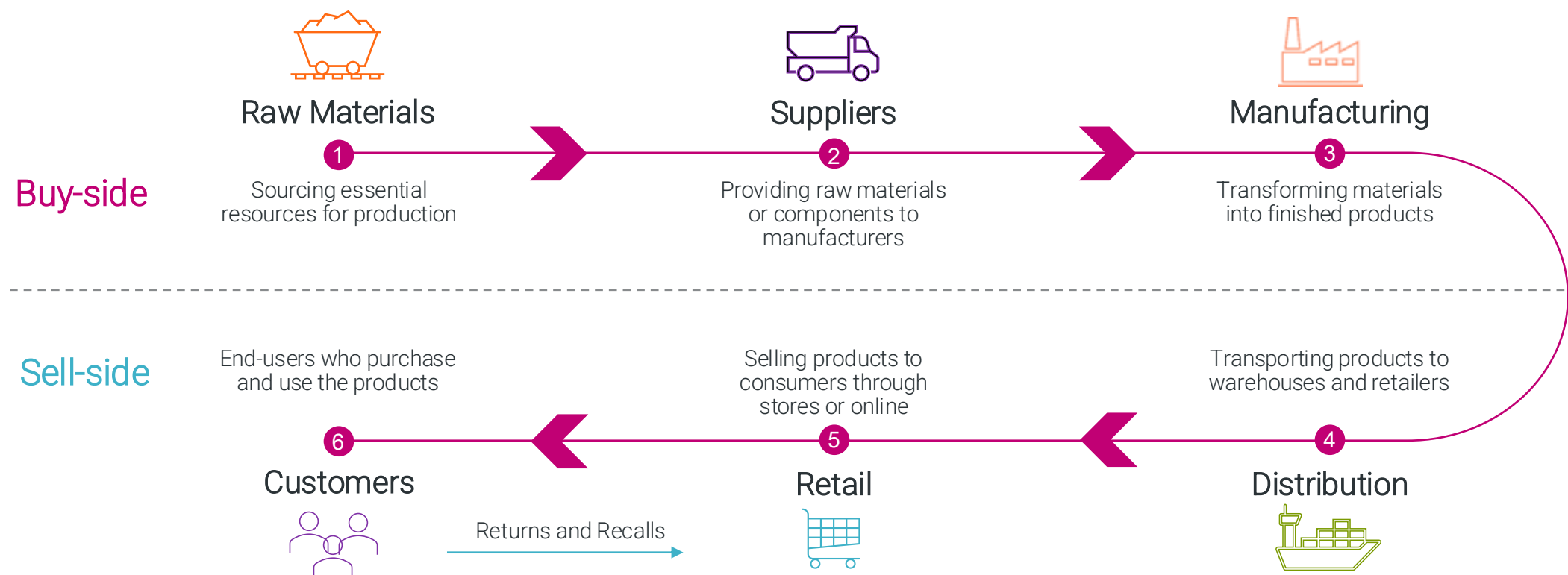
Source: [McKinsey Insight 2024](#)

The 2024 LeanDNA Supply Chain Readiness Study found that 41% of Manufacturers list “increasing supplier-chain visibility” as one of their current top initiatives.

Source: [LeanDNA \(2024\), Supply Chain Readiness Study](#)

Supply Chain Data Management

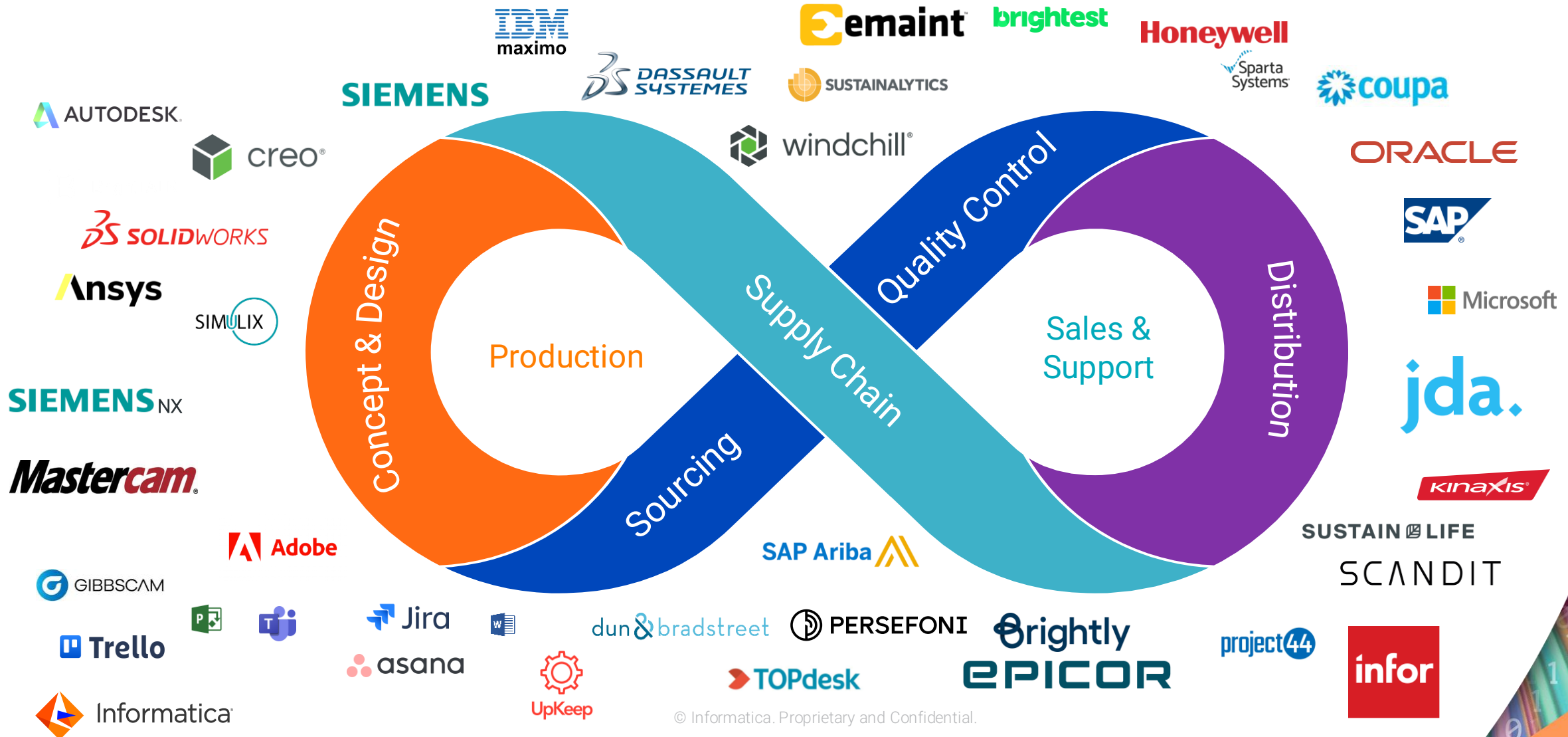
From Raw Materials to the End-Customer



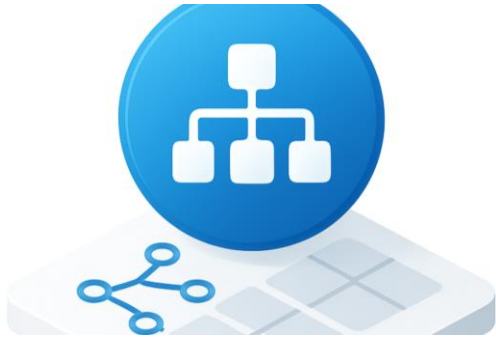
Supply chain data includes material, supplier, product, customer, and location information.

Digitalization is causing Fragmentation

Data is everywhere, in numerous formats, and often trapped in silos.



Categorizing Data in Organizations



Foundational Data

Master Data & Reference Data

- Products, Materials, Parts
- Suppliers, Customers, Partners
- Locations, Assets, Equipment
- Classifications, Taxonomies, Reference Lists



Operational Data

Transactional Data

- Orders, Shipments, Invoices
- Production Runs, Inventory Movements
- IoT Sensor readings, Machine Events
- Customer Interactions



Analytical Data

Insights and Risks, Forecast Data

- Dashboards, KPIs, Reports
- Forecast, Predictions
- ESG Metrics, Compliance Indicators
- Risk and Performance Models

Data goes bad all by itself. Without doing anything

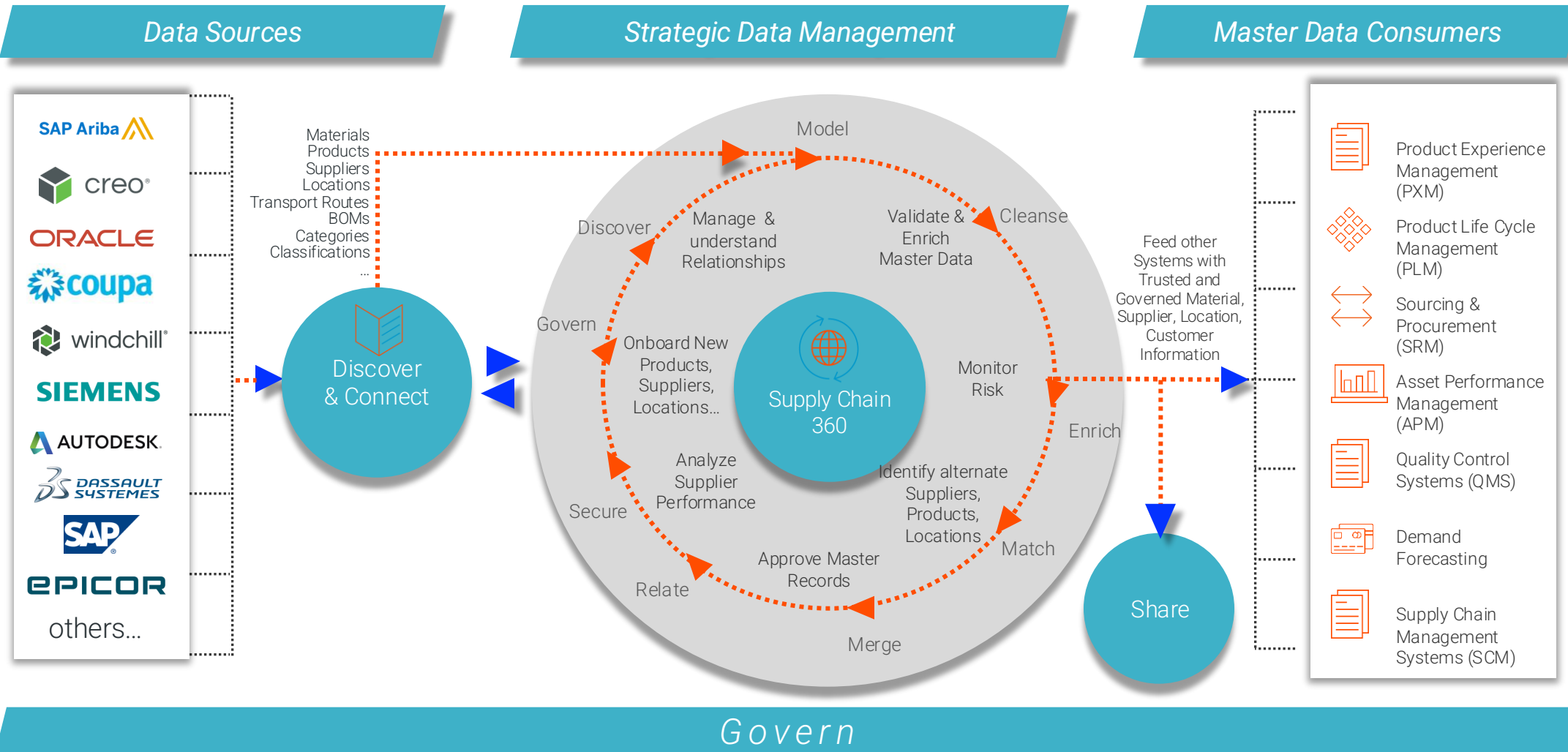
Suppliers	Customers	Products
<i>In one hour...</i> • 240 businesses will change addresses • 150 business telephone numbers will change or be disconnected • 112 directorship (CEO, CFO, etc.) changes will occur • 20 corporations will fail • 12 new businesses will open their doors	<i>In one hour...</i> • 5,769 individuals in the US will change jobs • 2,748 individuals will change address • 515 individuals will get married • 263 individuals will get divorced • 186 individuals will declare a personal bankruptcy	<i>In one year...</i> • On average 20% duplicates in product data • 90% of new product introductions fail • Retailers lost 40 billion or 3.5% of total sales lost each year due to item info inefficiencies • 60% error rate for all invoices generated • Global Data Sync will realize 30% lower IT costs

Source: D&B, US Census Bureau, US Department of Health and Human Services, Administrative Office of the US Courts, Bureau of Labor Statistics, Gartner, A.T Kearney, GMA Invoice Accuracy Study

Master data changes at rate of 2% per month.

Compounded, 2% monthly change is 27% per year, 61% in two years, 104% in three years!!!

Intelligent & Connected 360 Supply Chain View



Top 3 Data Challenges with Supply Chain Information

Internal & External Complexity

Silos within departments, reliance on suppliers and regulatory requirements.

Examples:

- Stock-outs and production delays due to siloed operations.
- Disruptions from supplier shortages.

Data Fragmentation & Quality Issues

Inconsistent data from various sources and low-quality supplier information.

Examples:

- Low-quality product information provided by suppliers.
- Delivery delays and customer dissatisfaction due to scattered data.

Inefficient & Manual Data Processing

Slow, manual handling of data.

Examples:

- Struggle to respond promptly to product recalls.
- It takes weeks to onboard a new supplier.



Impact on your
Supply Chain

- Inefficiencies
- Higher costs
- Lower resilience
- Compliance risks
- Lower competitiveness
- Hard to make informed and timely decisions

Supply Chain Regulations Across Industries & Regions



North America

- **FDA Food Labeling** (Food & Beverage): Clear labeling of ingredients, allergens, and nutrition.
- **DSCSA Pharmaceutical** (Drug): Traceability through serialization to prevent counterfeiting.
- **EPA Pesticide Standards** (Agriculture): Regulates pesticide labeling for safety.



Europe

- **EU Food Labeling Regulation 1169/2011** (Food): Mandatory allergen and nutrition labeling reporting.
- **REACH** (Chemicals): Safety standards for chemical handling and environmental protection.
- **RoHS** (Electronics): Limits hazardous materials in electronics
- **Digital Product Passport** (Automotive & Electronics): Traceability of product lifecycle (upcoming).



Asia-Pacific

- **China Food Safety Law** (Food): Strict food labeling and quality standards.
- **PMDL** (Japan, Pharmaceutical): Safety regulations for drugs and medical devices.
- **K-REACH** (South Korea, Chemicals): Safety evaluations for chemical substances.



Global

- **ITAR** (US/EU, Defense): Export restrictions on defense products.
- **ISO 13485** (Medical Devices): Quality standards in medical device manufacturing.
- **GS1 Standards** (Cross-industry): Product identification for global traceability.

Supply Chain Data Management Use-Cases

PRODUCT RECALLS



- Substantial challenges in tracing issues back to its origin
- Lack of detailed records on Product Specifications, Supplier Information, and Transport Routes
- Risk of consumer safety and Brand Damage

SUPPLY CHAIN DISRUPTIONS



- External factors causing supply chain disruptions
- Shortages of critical components, parts and materials
- Limited alternatives due to missing Supplier Information
- Jeopardizes orders and customer relationships

Product Recalls

The title "Product Recalls" is displayed in a large, white, sans-serif font on the left side of the slide. The background consists of a dense field of black umbrellas, with one prominent orange umbrella in the center-right. A white curved line separates the main content area from a colorful, abstract graphic on the right edge.

Product Recalls across the industry

FOOD AND BEVERAGES



- March 2024: Aldente GmbH recalled "Original French Butter Croissants" because it could not be ruled out that some packages may contain metal foreign bodies

CPG



- April 2024: Procter & Gamble Recalls 8.2 Million Defective Bags Packaging near zipper can tear, allowing access to contents
- Risk of injury if children ingest laundry packet contents
- Skin and eye injury hazard from exposure

SAFETY EQUIPMENT



- March 2024: Ouwoer Direct Helmets do not comply with the positional stability and impact attenuation required by safety standard for bicycle helmets
- The helmets can fail to protect a child in the event of a crash, posing a risk of head injury

FASHION AND CLOTHING



- April 2024: Sant and Abel children's pajamas fail to meet the flammability standards for children's sleepwear, posing a burn hazard to children

CONSUMER ELECTRONICS



- March 2024: The lithium-ion batteries in the Anker EverFrost Coolers can overheat, posing a fire hazard

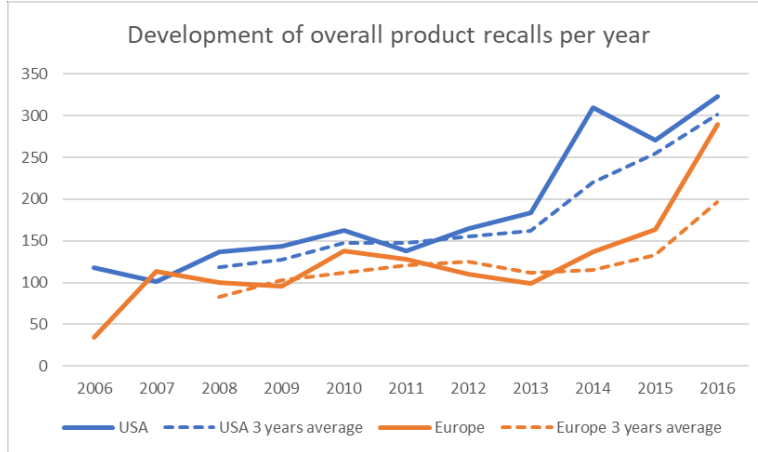
AUTOMOTIVE



- April 2024: BMW recalls 7000 cars over brake system defect
- Causes signal interference within the brake system requiring higher pedal force for braking

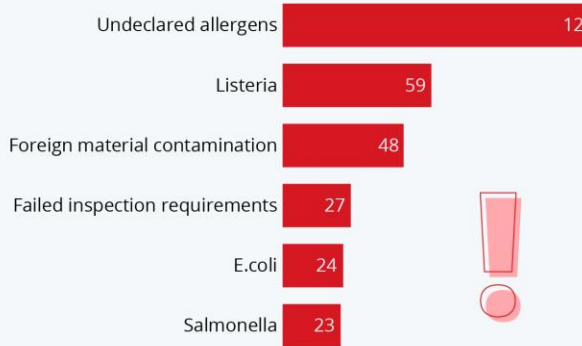
Product Recalls across the industry

Increasing number of product recalls across verticals



Why Foods Are Being Recalled

Most common causes for food recalls in the U.S. in 2019

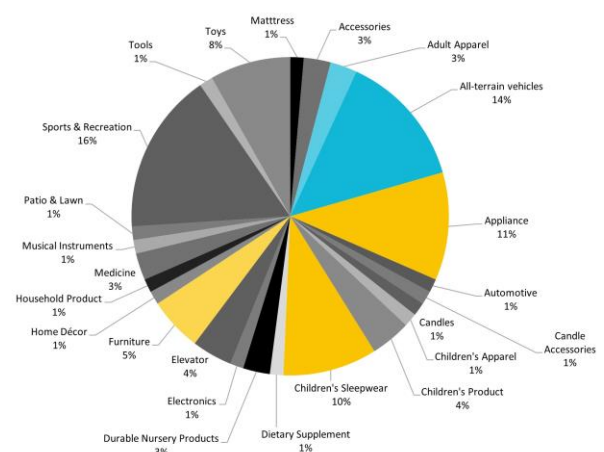


Source: <https://www.statista.com/chart/20681/us-food-recalls-by-type/>

- Most of the recalled products were manufactured in China, with chemical risks and injuries being the main concerns
- Specific alerts and safety messages have been released concerning products like e-bikes and e-scooters due to fire hazards, as well as issues with gas hob elbow joints requiring corrective action

- Incorrect or missing information on labels, such as undeclared allergens in food products or incorrect usage instructions
- Issues with product quality, contamination with harmful bacteria, chemicals, or foreign objects can lead to recalls

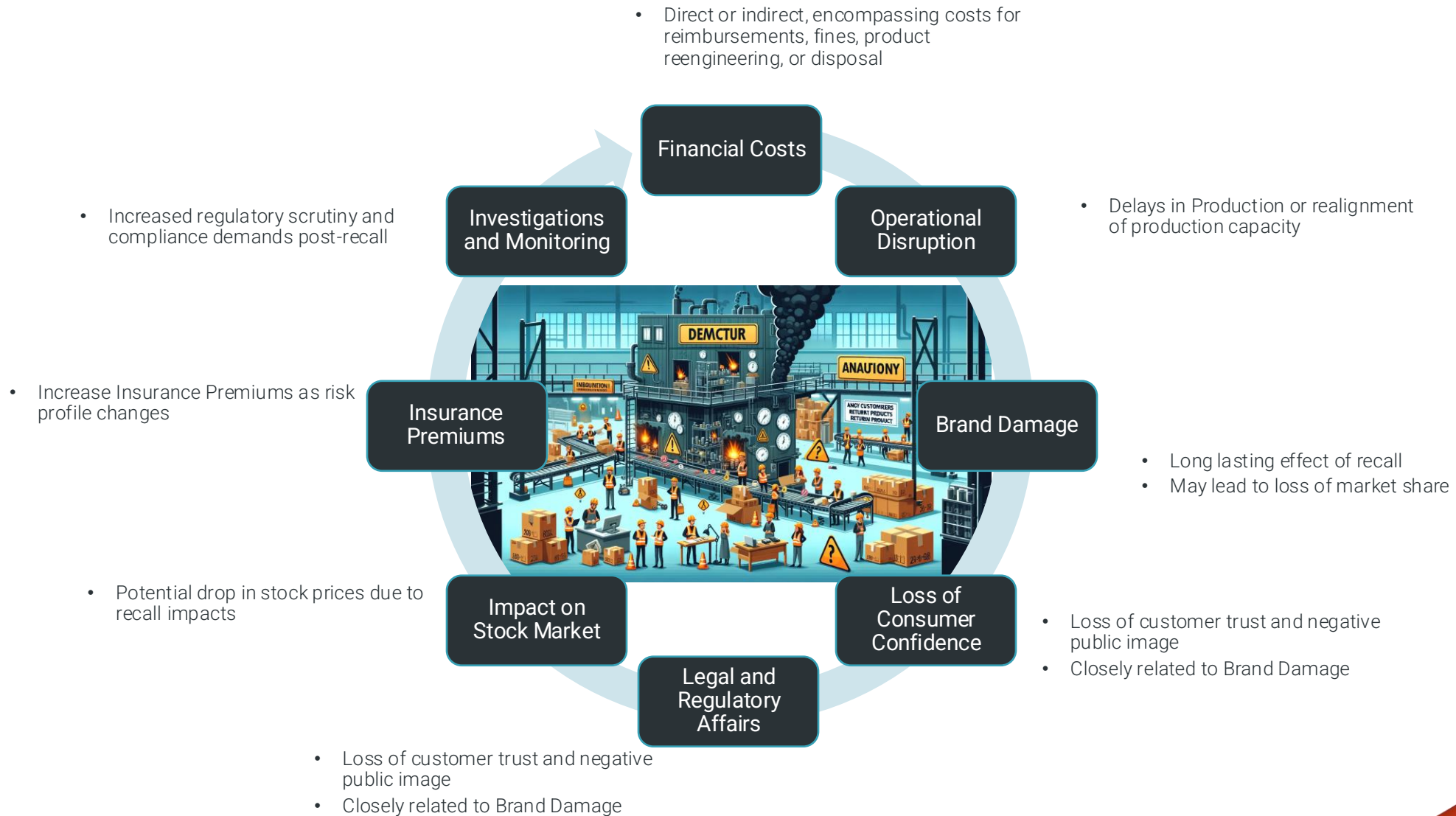
US CPSC - Recalls by Category



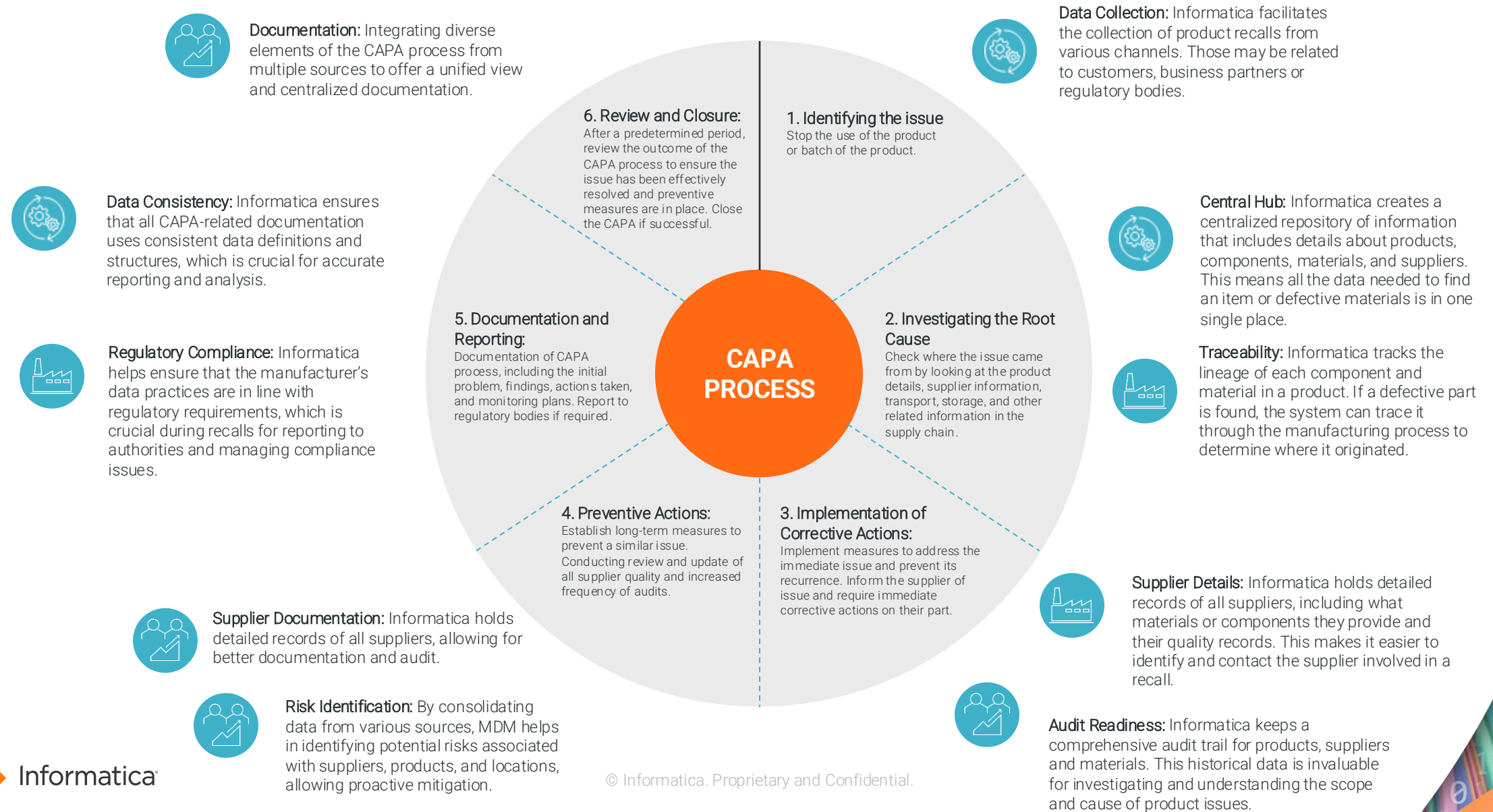
Source: <https://www.intertek.com/products-retail/product-recalls/q1-2022/>

- In Consumer Products most recalls are related to Sports & Recreation followed by All-terrain vehicles, mainly for injury, crashes, and/or falls

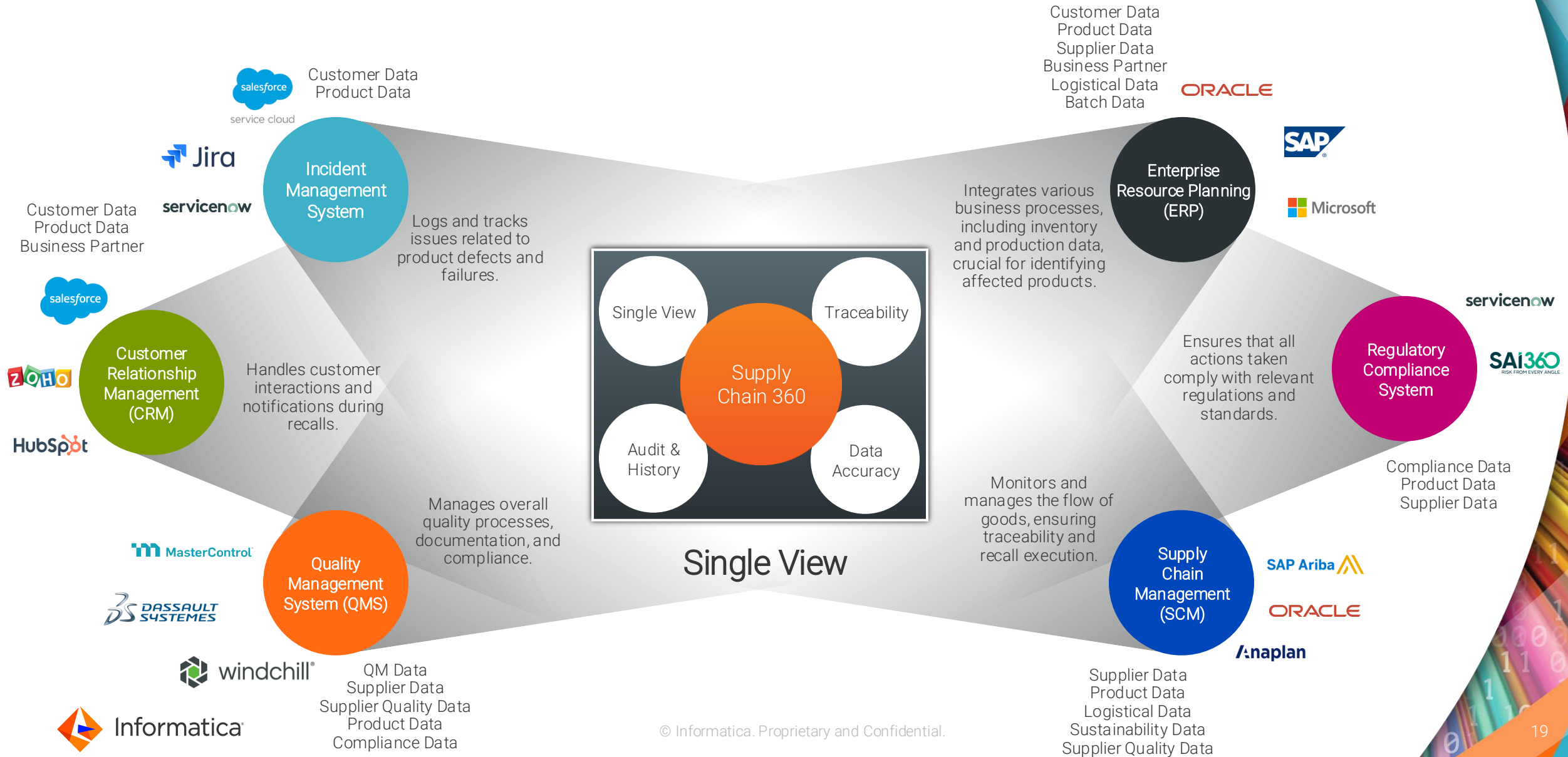
Consequences of Product Recalls



Product Recall: Corrective and Preventive Action



Data is everywhere complicating Product Recalls



Supply Chain Disruptions



Supply Chain Disruptions

Most recent examples affecting the entire industry



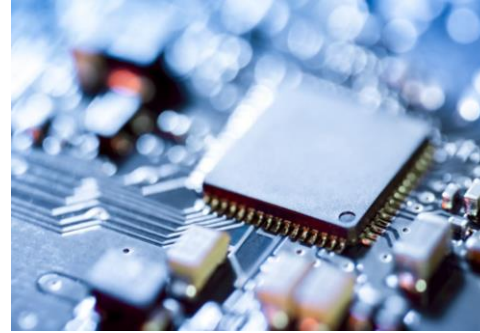
Low Water Levels

- Seasonal changes impacting water levels or rivers
- Panama Canal with an annual drought season lasting from January through May
- In 2022, the Rhine had low water levels due to dry weather hindering vessels from shipping
- The Mississippi River experienced low water level in 2022



Political Tensions

- Reduced access to the Suez Canal due to ongoing geopolitical tensions in the Red Sea region
- This forced shipping companies to reroute their vessels around the Cape of Good Hope increasing transit time
- Several industries were suffering from delayed materials leading to production stops



Semiconductor Shortages

- Semiconductor shortages due to high demand from AI Hardware, EV production, and renewable energy infrastructure
- Supply shocks from Taiwan's 2024 drought and subsequent water use restrictions affected chip factory output
- Lead times for specialized electronics, microcontrollers and battery grade materials have risen again



Tariffs & Regulatory Shifts

- New trade measures and CO2 related regulations are forcing companies to reassess sourcing, costs structures and logistics flows
- Scope 3 related reporting rules require companies to track all upstream and downstream emissions

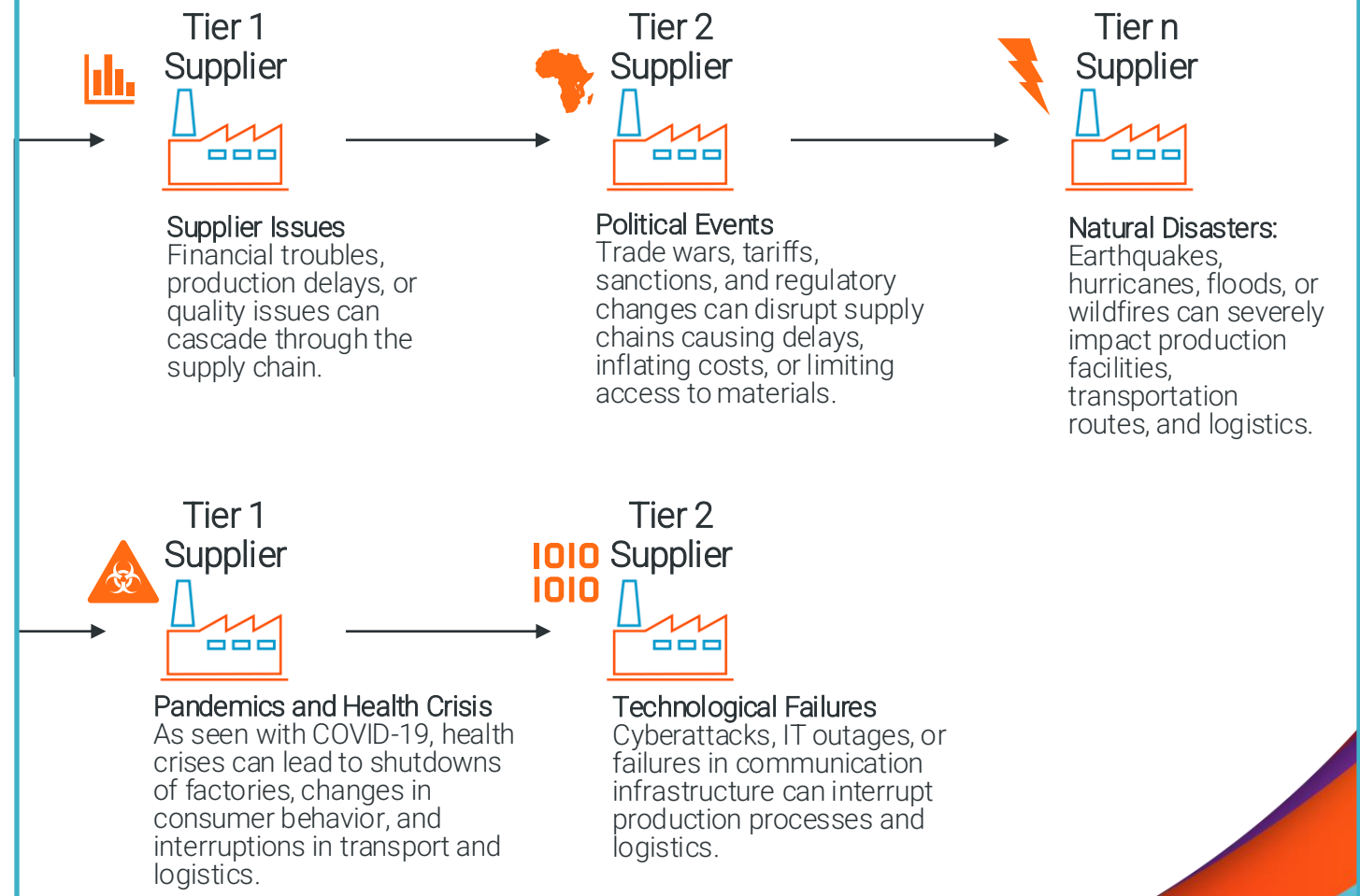
Internal and External Factors are causing Supply Chain Disruptions

Internal Factors

- **Issues with Demand Planning:** Can lead to shortages or a surplus of products.
- **Inventory Issues:** Ineffective inventory management can cause production delays
- **Production Problems:** Technology or equipment failures can disrupt manufacturing processes.
- **Labor Issues:** Strikes or lack of skilled labor can delay production.
- **Quality Issues:** Poor quality control can lead to defective products and product recalls.
- **Poor Change Management:** Badly managed changes can disrupt operations.



External Factors



Supply Chain Disruptions

Navigating the Complex Web



- 
Central Repository for all data related to products, materials, suppliers, and logistics
- 
Track Lineage of each component and material in a product back to the original supplier from where it originated
- 
MDM collects and maintains comprehensive and **detailed information** about products, suppliers, and materials.
- 
Integration with data providers like D&B for **external enrichment** enhancing supplier profiles with key quality metrics for better decision-making.
- 
Fuel downstream applications such as QMS or SCM including AI with rich and consolidated master data around products, materials and suppliers.



How does this relate to AI?

What is Agentic AI – And why now?

From isolated insights to an intelligent, data driven digital colleague

Imagine your best Supply Chain Analyst:

- Knew where all your core data lives, products, suppliers, materials, locations
- Understood the contextual relationship: which supplier provides which material, which product belongs to which category
- Could instantly combine master data with transactional insights: open orders, delayed shipments, supplier risks
- And proactively gave you answers the moment something needs attention



That's what Agentic AI does!

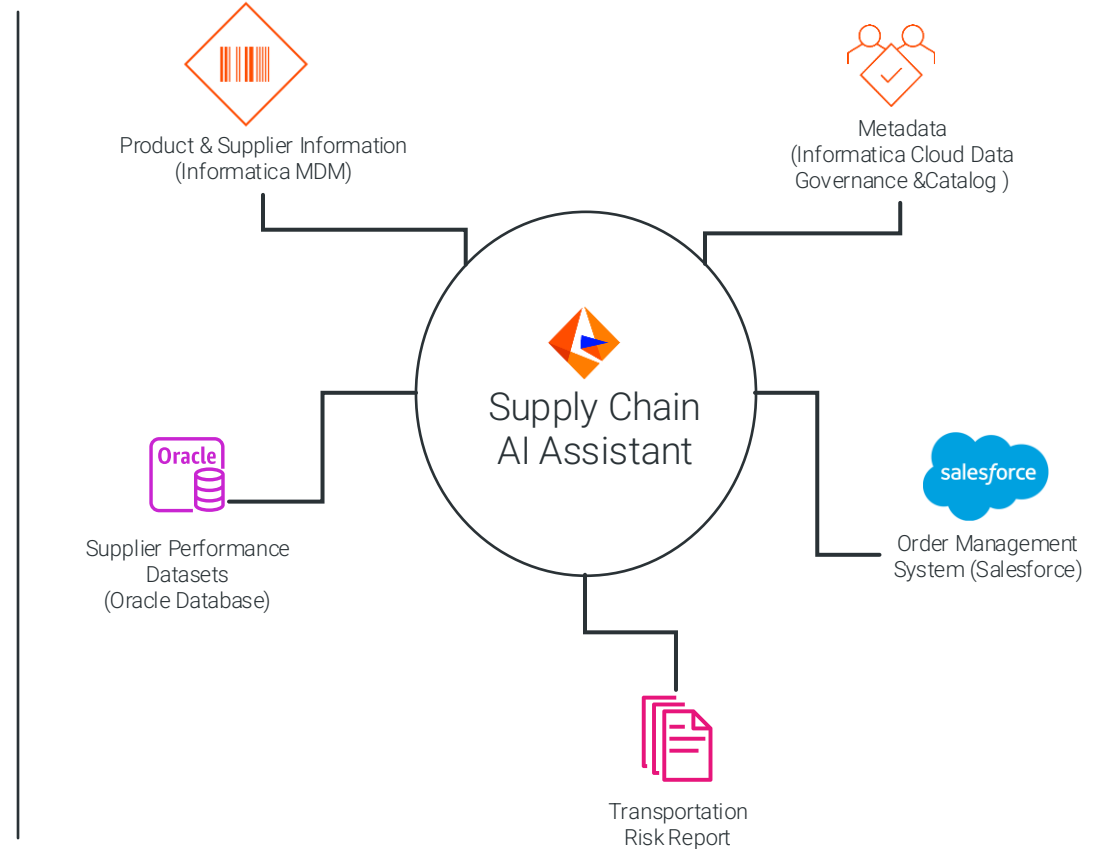
It's a context aware digital agent that:

- Uses Master Data as its foundation
- Enriches it with real time transactional insights
- And helps act faster across your supply chain

Informatica Supply Chain AI Assistant Demo

From Dashboards

- NexTek Systems is a fictitious company
- Sell 'build-to-order' computer hardware for enterprise customers
- Persona
 - Supplier Chain Analyst

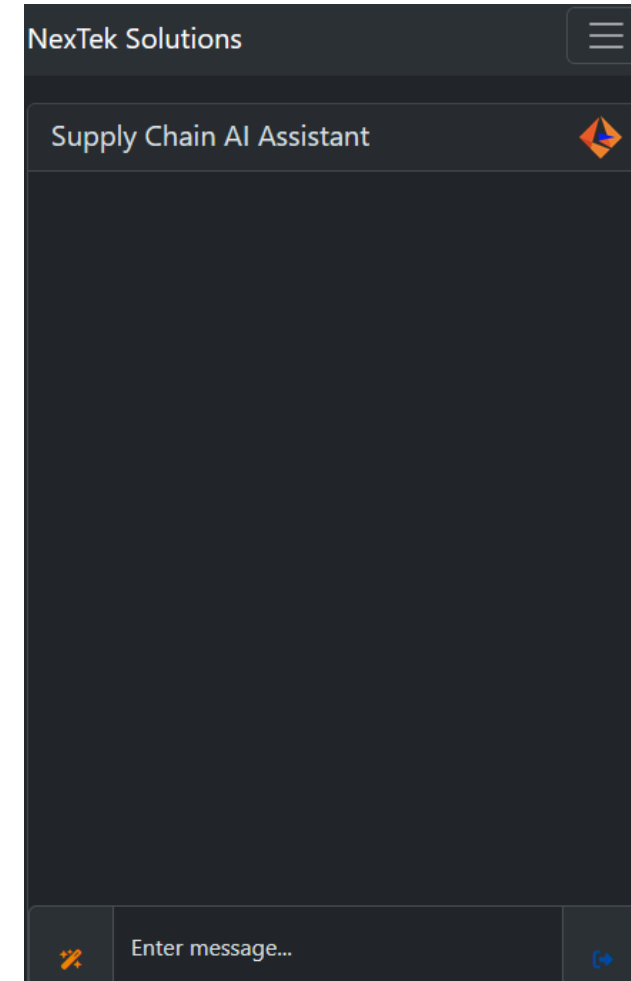


- ✓ Order information
- ✓ Product information
- ✓ Supplier information
- ✓ Optimal supplier lead time
- ✓ Transportation Risk

Game Instructions

What to Find, How to Win

- Earn points by retrieving the following data using the AI Assistant:
 - Order ID pending Review
 - Product name in the order
 - Unit price of the product
 - Primary supplier name for the GPU component
 - Lead time for GPU supplier (CLT or OLT, Confidence Score = 100%)
 - Transportation risk level (GPU supplier's Airport of Delivery)



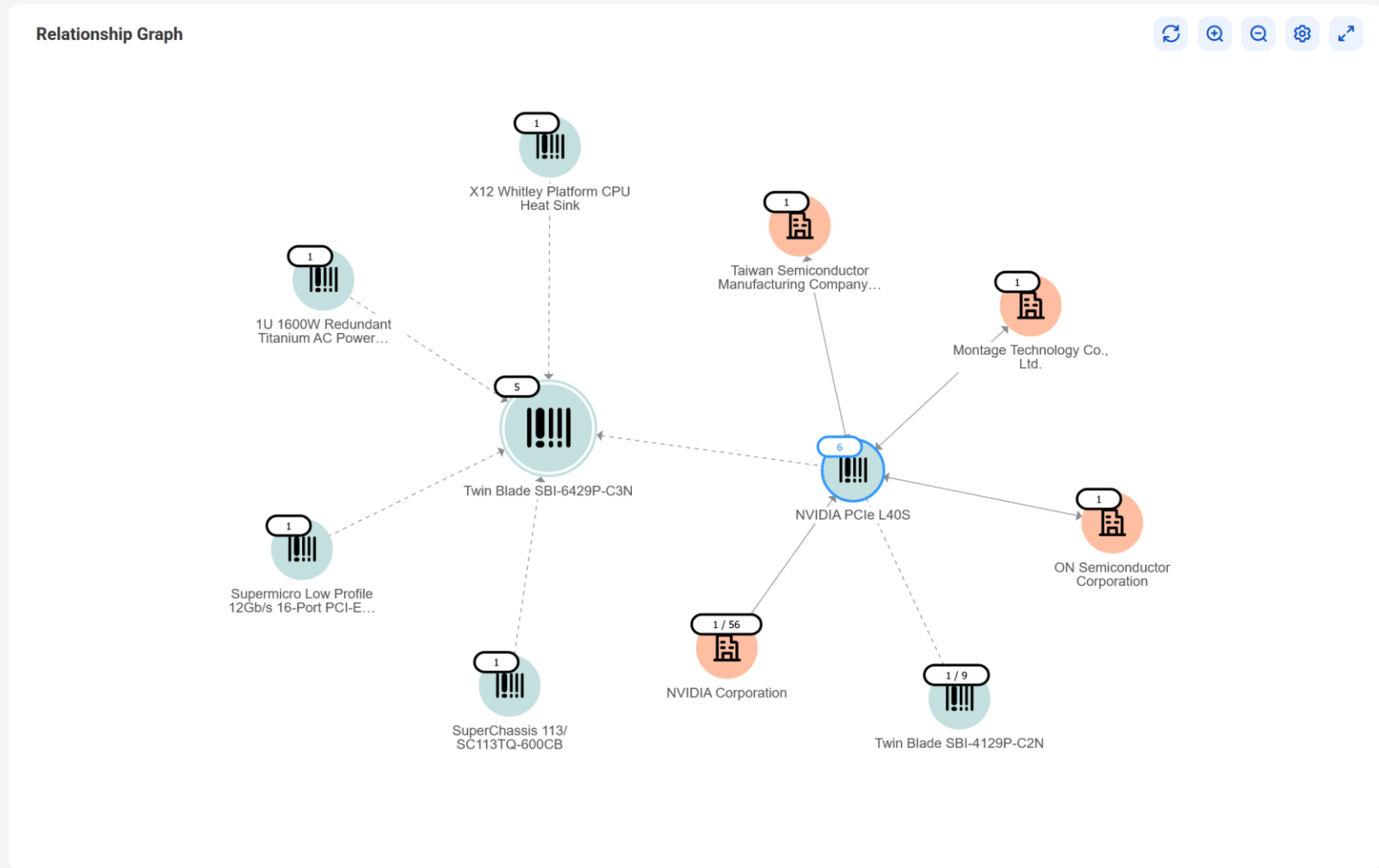


Scan to Play

- New
- Home
- Search
- Hierarchies
- Reports and Dash...
- My Jobs
- Twin Blade SBI-6...

SBI-6429P-C3N
Status: Active

- Overview
- Attributes
- Graph



NVIDIA PCIe L40S

	Record	Relationship
☐		
☐	Taiwan Semiconductor Manufacturing...	Supplier
☐	NVIDIA Corporation (Supplier)	Supplier
☐	ON Semiconductor Corporation (Supplier)	Supplier
☐	Montage Technology Co., Ltd. (Supplier)	Supplier
☐	Twin Blade SBI-4129P-C2N (Item)	Item to It
☐	Twin Blade SBI-6429P-C3N (Item)	Item to It

Questions?



Learn more about EDM Association

(formerly EDM Council)



The screenshot shows the EDM Association website homepage. The header includes the EDM Association logo, navigation links (Membership, Frameworks, Training, Engage, Innovation, About), and buttons for Sign In and Join now. The main content area features a large hero section with the title "Global Advocates for Data & Analytics Management" and a sub-headline "The leading global trade association providing best practices, standards and education to data and business professionals in our data-driven world." Below this is a "What we do" button. To the right, there's a "TODAY'S HIGHLIGHTS" section with three items: "Isle of Man and EDM Association Join Forces to Build a New Data Economy", "EDM Council and Object Management Group Combine to Create Global End-to-End Data and Standards Authority", and "Eyes on Data: Best Practices and Excellence in Data Management Matter More Than Ever". The footer includes a statement "Join a vibrant community of 25,000+ business leaders, CDOs, and data and analytics professionals across all industries." and a row of partner logos: Bank of England, NOVARTIS, HSBC, verizon, Schneider Electric, Microsoft, Google, and AEGON.



700+ Member Firms

Cross-industry,
including Regulators



30,000+
Professionals



Worldwide

Americas, Europe,
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