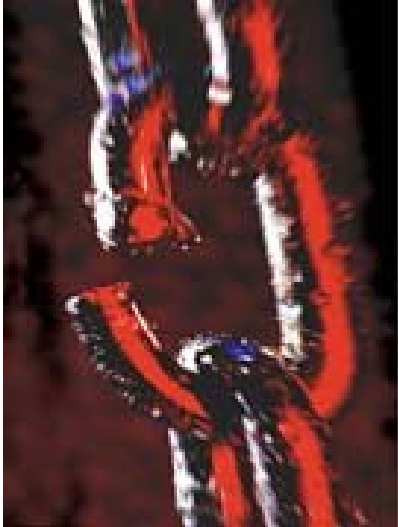


Welcome

Understanding & Detecting Supply Chain Fraud



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www.katzscan.com

www.supplychainfraud.com

About The Presenter

- Norman Katz, Owner & Founder
- B.S.B.A. & Computer Science – 1985
- Katzscan founded January 1, 1996
- Florida Private Investigator – 1998
- Certified Fraud Examiner – 2006
- Corporate Governance Cert. – 2007
- Certified Fraud Specialist – 2008

Consulting Specialties

- Supply Chain Fraud
- Supply Chain Governance
- Supply Chain Vendor Compliance (↑ & ↓)
- Supply Chain Technologies (EDI, auto ID)
- Software Selection & Implementation
- Data Analysis / Reporting / Conversions
- Operations Analysis & Improvement

Presentation Outline

1. Definitions: Supply Chain & Fraud
2. Frauds In The Supply Chain
3. Supply Chain Fraud Examples
4. Detection & Reduction Techniques
5. Helpful Technologies
6. Fraud Cost vs. Value Of Reduction

Disclaimer

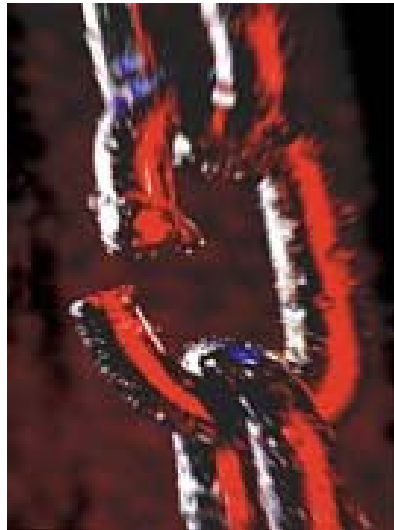
I am not a lawyer and cannot be relied upon for legal advice.

(I am also not a doctor and have never played one on TV!)

This presentation is not a “how-to” guide for perpetrating fraud.

Section 1

DEFINITIONS



What's The Supply Chain?

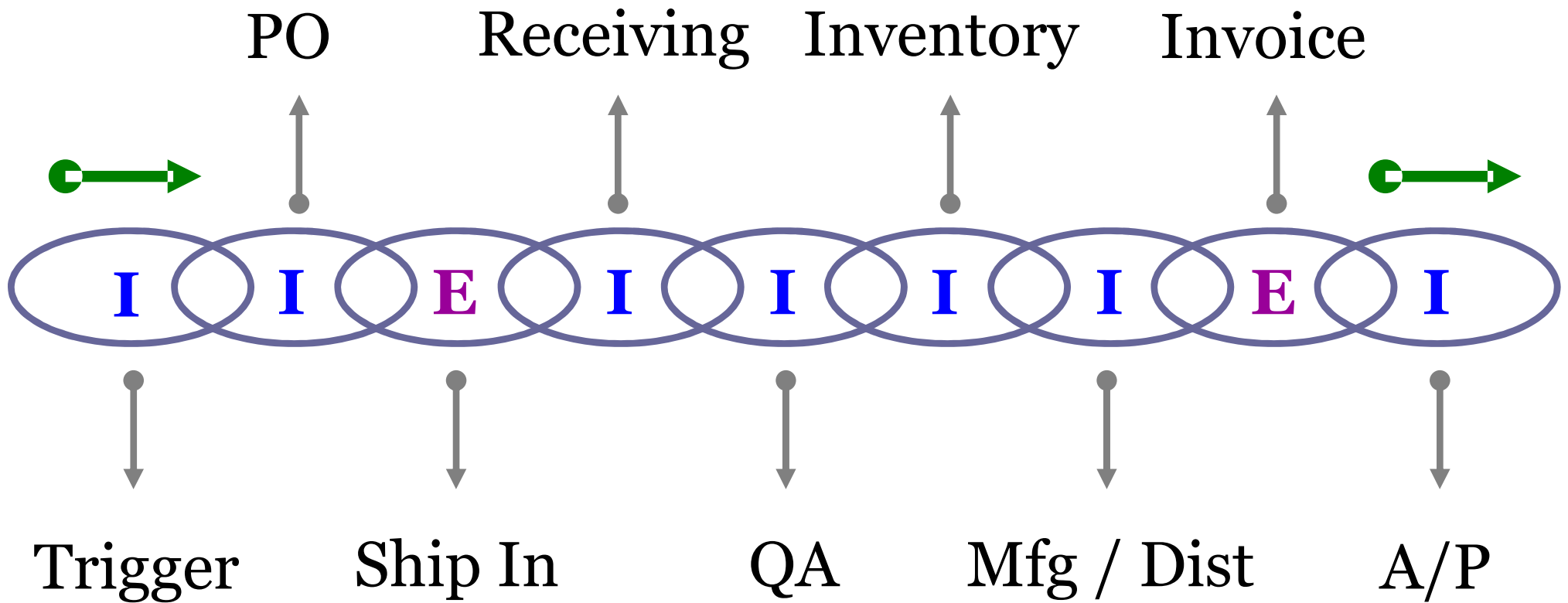
- “The movement of raw materials, components, finished goods, supplies, services, and monies.....
 - Between a *supplier* and a *customer*.....
 - From start to finish.”
-
- ✓ **Who are the customers to IT and HR?**
 - ✓ **Generally defined by the ERP system**

ERP Systems

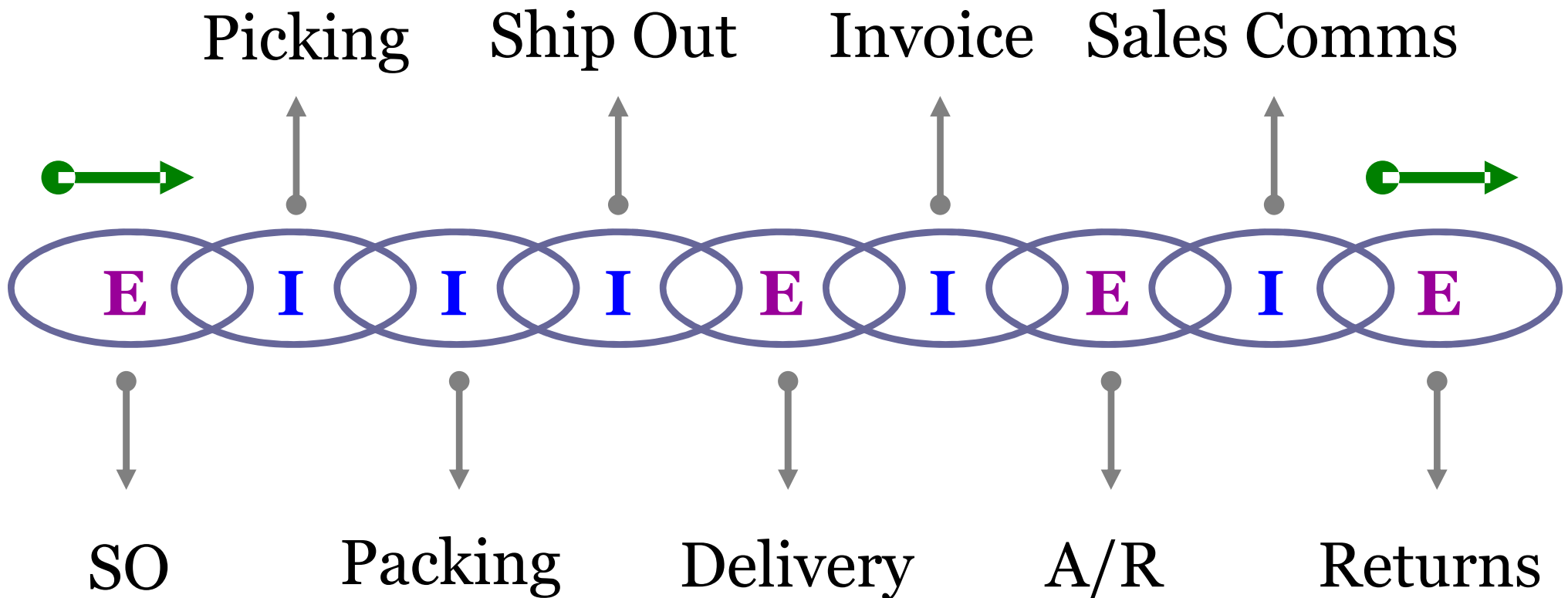
Enterprise Resource Planning

- Customers, Suppliers
- FG's, RM's, Components → \$ & # & ?
- PO's, SO's, WO's, Invoices, Pick Tickets
- Bills Of: Material, Labor, Operations
- A/P, A/R, G/L
- *Other features.....*

Inbound Supply Chain



Outbound Supply Chain



What's Fraud?

“deceit, trickery, sharp practice, or **breach of confidence**, perpetrated for profit or to gain some unfair or dishonest advantage”

SOURCE: www.dictionary.com

“Gain” can be direct or indirect.
Prosecution can be criminal or civil.

What's Corporate Fraud?

As defined by the Internal Revenue Service:

These schemes are characterized by their scope, complexity, and the magnitude of the negative economic consequences for communities, employees, lenders, investors, and financial markets.

Where's The Fraud?

In the internal & external supply chain operations by exploiting gaps in supply chain technologies and procedures.

Can be perpetrated by white collar & blue collar employees in public & private companies and government agencies.

Some SCF Categories

- **Asset Misappropriation** (theft, misuse)
- **Contract & Procurement**
- **Financial** (statements, A/P, A/R, G/L)
- **Payroll** (ghost emps, false timecard hours)
- **Regulatory** (falsification of reports)
- **Manufacturing** (false counts, quality)
- **Tainted Products** (food, toys, medicines)

Results Of Fraud

Kickbacks / Bribes (a.k.a.) *Gifts / Loans*

Theft / Embezzlement

~ lead to ~

Reduced Profits / Reduced Productivity

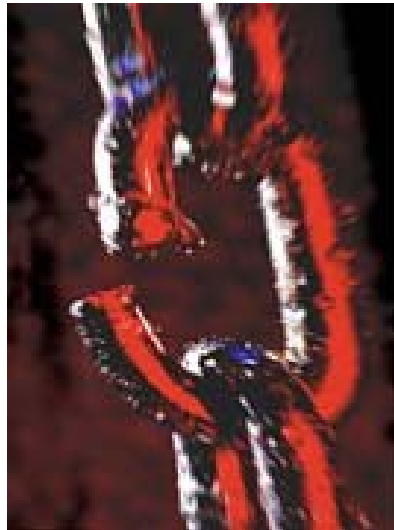
More Fraud / Greater Risk / Less Control

SCF Characteristics

- Not necessarily a departmental problem
 - Links are inter-connected, not stand alone
- May manifest differently than it originated
 - “Ripple Effect” through the chain links
- More than just “cooking the books”
 - May not be caught on financial statements
- Various collusions: internal, external, both
- Happens domestically & internationally

Section 2

SUPPLY CHAIN FRAUDS



Trigger Frauds

What triggers the supply chain to start?

On-Hand Qty < Safety-Stock Qty

<p><u>Affected Systems:</u></p> <ul style="list-style-type: none">• POS• VMI• WMS	<p><u>SSQ Tinkering Results:</u></p> <p>↑ = ↑ Inventory + ↓ Cash</p> <p>↓ = ↓ Inventory + ↑ stock outs, late shipments, etc.</p>
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More effective if “Reorder Quantity” is constant or within limits.

Purchase Order Frauds

- Fictitious orders from real suppliers
- Fictitious suppliers
 - *Especially “service-only” suppliers*
- Order stuffing
- Part substitution
- Quantity changes
- Price changes

Picking & Return Frauds

- Over Pick → **Theft**
- Incorrect Pick → **Return Fraud**
 - *Customer may or may not be involved*
- Under Pick or Wrong Pick → **Revenge**

Packing Frauds

- Similar to picking frauds
- Likely collusion between picker and packer
- Can still involve outside influence

Distribution Frauds

- Falsification of documentation
 - *Pick List, Pack List, BOL, Manifest*
 - *Contents / Value / Quantity*
- Collusion with customer or carrier
- Short shipments
 - *Theft of actual quantity*
- Over-ship
 - *Theft of excess*

Receiving Frauds

- Falsification of receipt
 - *Covers supplier shortages*
 - *Probable inside-outside collusion*
- Theft
 - *Likely if controls are lacking*
 - *Likely an inside job*

Quality Assurance Frauds

- Inside-Outside Collusion
 - *Supplier sends low-quality parts*
 - *Purchasing or QA in collusion with supplier*
- Inside Pressures
 - If QA dept is a bottleneck
 - *RM → Manufacturing*
 - *FG → Distribution*

Inventory Frauds

- Primarily due to theft
- Easier with poor inventory control
 - *No cycle counting*
 - *Only annual physical inventories*
 - *No use of auto-id technologies or systems*
- Can be due to sloppiness
 - *Easier to reorder instead of finding it*
 - *Damages due to poor storage setup*

Manufacturing Frauds

- Collusion with a RM supplier
 - *Probably easier with no QA pre-check*
- Asset Misuse / Overuse / Abuse
 - *Problems can result from lack of PM*
- “Haste Makes Waste”
 - *Can lead to less-than-first-quality products*
- Tweaked machine counters
 - *Falsify true production run*

Invoice Frauds

- Bills for:
 - *Short shipments*
 - *False shipments*
- Fictitious suppliers
 - *Beware of “service-only” suppliers*
- Credits purposely not applied by supplier

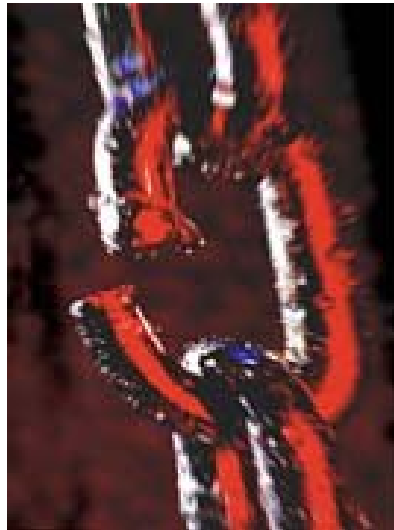
Sales Commission Frauds

- ✓ *Intent is to only collect commissions.*
- ✓ *Probably in collusion with customer.*

- Non-existent (fictitious) sales
- Over-inflated sales orders
- Sales that are returned
- Pre-booked sales that are cancelled

Section 3

SUPPLY CHAIN FRAUD EXAMPLES



Risk Responsibility

Reminder:

**You can outsource manufacturing, but
you cannot outsource responsibility!**

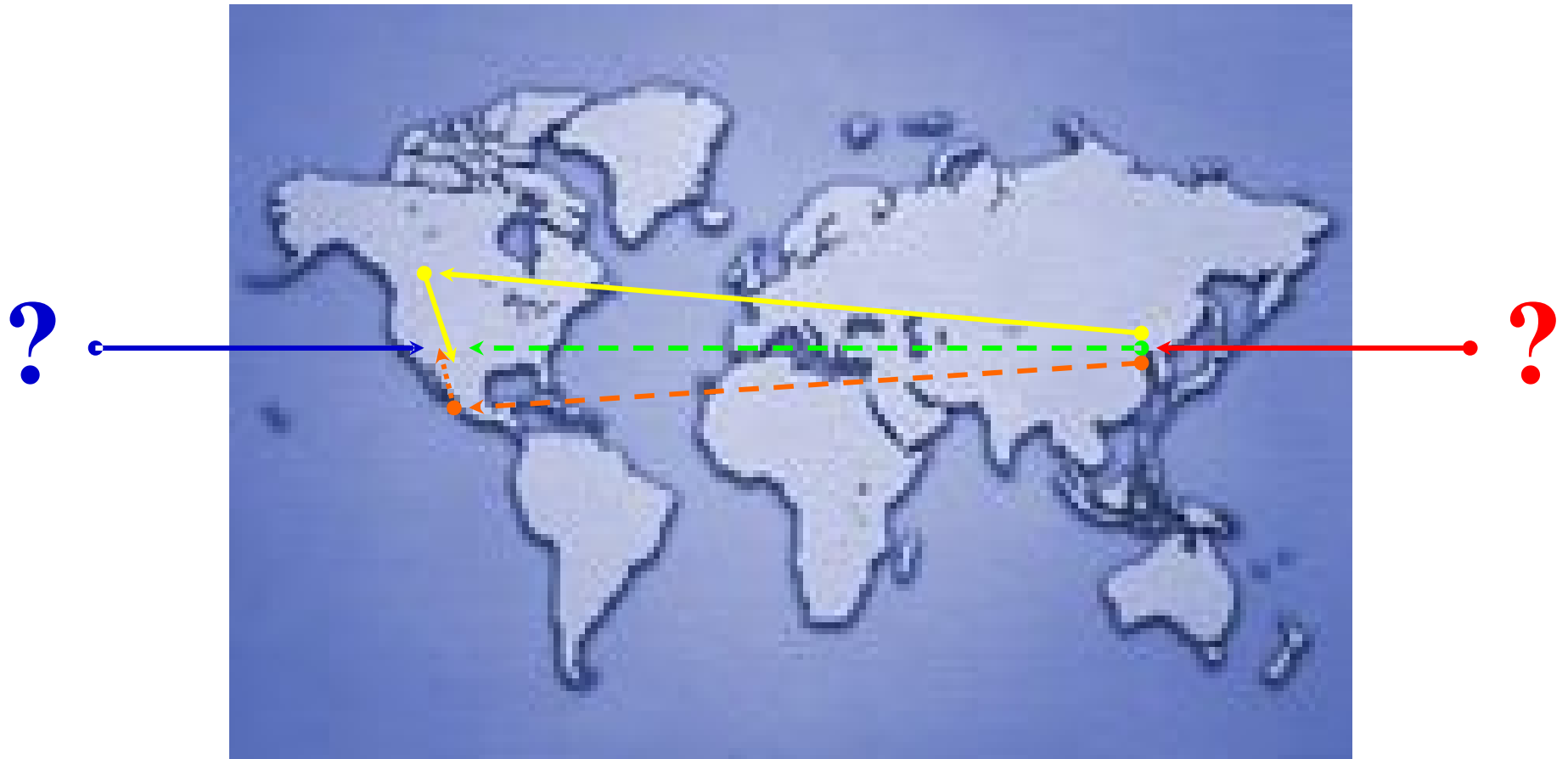
Counterfeiting Concerns

- **7%** of all goods sold globally estimated to be counterfeit
- **\$600B** – value of the 7% of goods
- Estimated loss of US jobs: **750,000**
- **80%** of goods confiscated by US CBP were traced to China

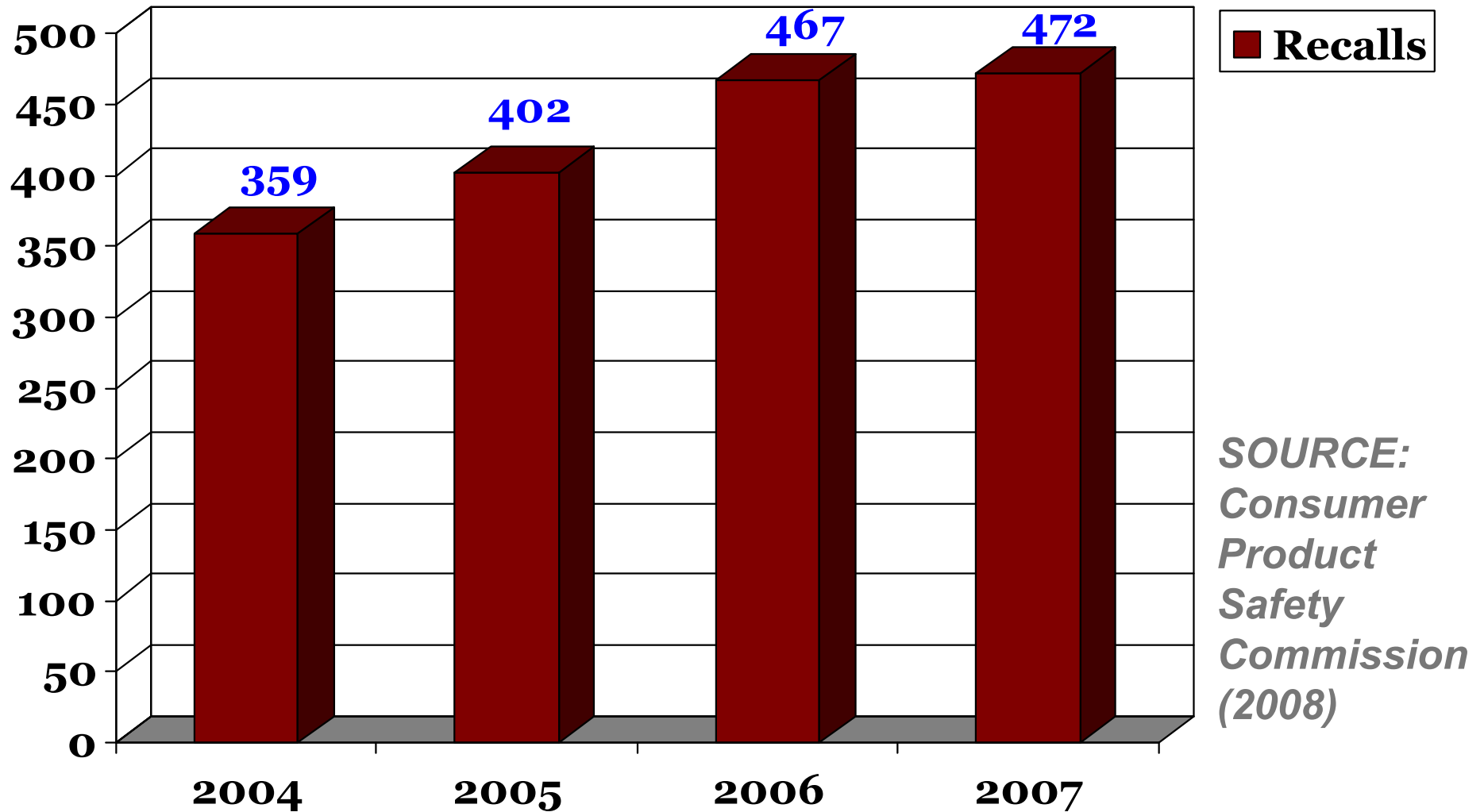
SOURCES:

World Customs Organization &
US Customs and Border Protection

Product Problems



CPSC Product Recalls



Tainted Product Frauds

CORRUPTION

- Bribery / Kickbacks
- Competitor Conspiracy
- Supplier Collusion
- Anger / Revenge
- Stock Price Deception

CORPORATE FRAUD

- Cost-cutting to:
 - Reduce CGS
 - Increase profit margin
 - Boost stock price
 - Boost exec bonuses

Where was Quality Assurance?

Fraud or Forgive? – 1

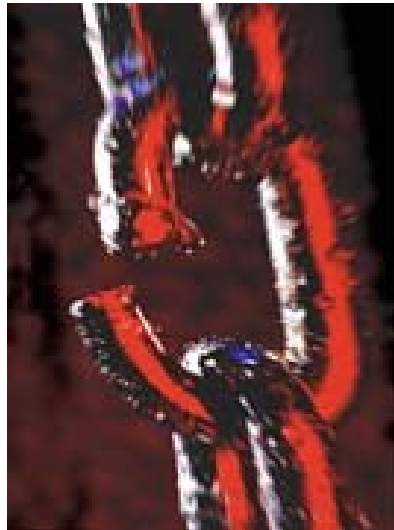
- **Over 250,000 tires** ~ \$20M in recall costs
- **300,000 leaded charm bracelets** → \$1M fine
- **Peanut butter, canned food, pet food, toothpaste, fresh foods, and more!**
 - Sick consumers get coupon for free jar of PB
- **Over 22,000,000 toys**
 - \$1M in CPSC late notification fines in 2007
 - \$1.1M fine in 2001 for late notifications too!
 - *Most recalls due to poor design*

Fraud or Forgive? – 2

- **Baby Cribs:** Latch design flaw
- **“Date Rape Dots”** - candy
- **Grout Sealer** – 80 illnesses & 2 deaths
- **3,500,000 toys** with unsafe magnets
- **Mislabeled ammo sent to troops**
 - Albanian made (OK), Chinese made (NOT OK)
- **Arms Export Control Act violations**
 - NV goggles almost mfg'd in China to boost profits
- **Old Tires Sold As New**

Section 4

DETECTION & REDUCTION



Detection Frequency

Enough to be sufficient but not an obstacle

- Increase **likelihood** of catching fraud
- Decrease **probability** of fraud occurring
- Decrease **costs** and **impact** of fraud

Can never expect to be fraud-free

Avoid “dummy camera” syndrome

Reduction Tactics

- Separation of responsibilities
- Cross-training + job shifting
 - Helps prevent knowledge silos → fraud source
- Forced vacations
- Document **what is** / **is not** acceptable behavior:
 - Employees
 - Vendors

Reduction Models

- ✓ **Creates transparency to operations.**
- ✓ **Documents how something is done.**

- Lean
- ISO
- Good Governance (SOX)
 - COSO
 - COBIT

Identification Tactics

- Lot / Batch Control ID's, Serial Numbers
- Watermarks (*photocopy-sensitive*)
- Color-coding
- Symbols
- Holograms
- RFID Pedigree

Applications: Products, Documents

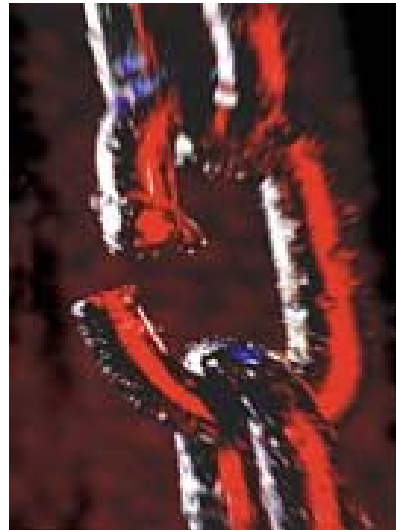
Fraud Discovery Sources

<i>BAD</i>	<i>WORSE</i>
Employees	Consumers
Customers	Govt. Regulators
Vendors	Media

**Engage your employees, customers, and vendors,
and enable them to report fraud anonymously.**

Section 5

HELPFUL TECHNOLOGIES



Technology Tools Should:

Increase productivity & accuracy

Decrease waste & inefficiency

Decrease fraud costs & opportunities

Help detect early existence of fraud

Increase **thoroughness** of audit / x-checks

Increase **frequency** of audit / x-checks

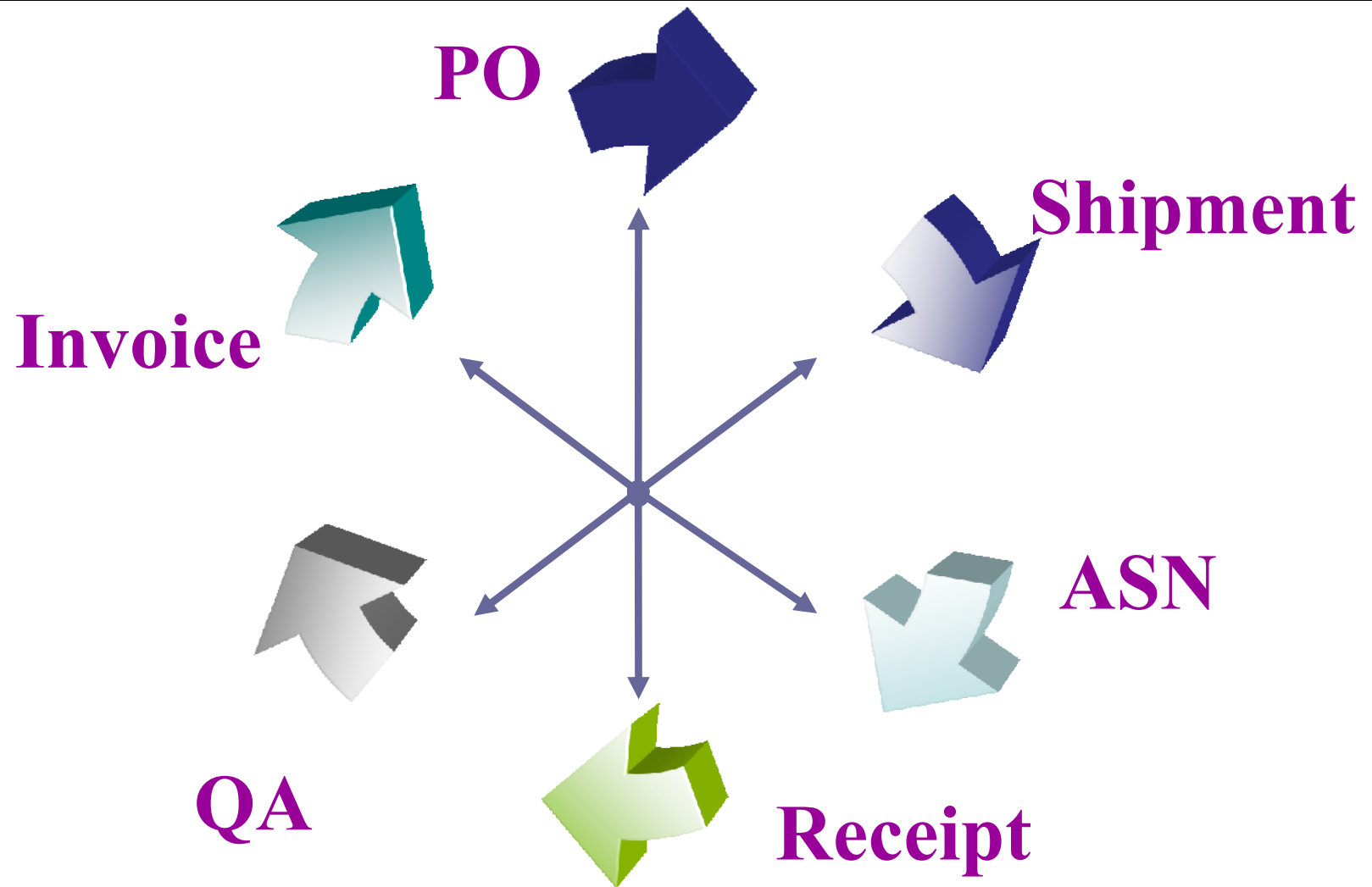
Technology Methodology

- **Move from paper to electronic data**
 - *Harder to falsify*
- **Programmatic audits and x-checks**
 - *Faster & More Accurate detection vs. paper*
- **Stop problems at the source**
 - *Prevent infiltration of the “bad” (data & “stuff”)*
- **Reduce severity of the fraud**
 - *Identify before it manifests to something worse*

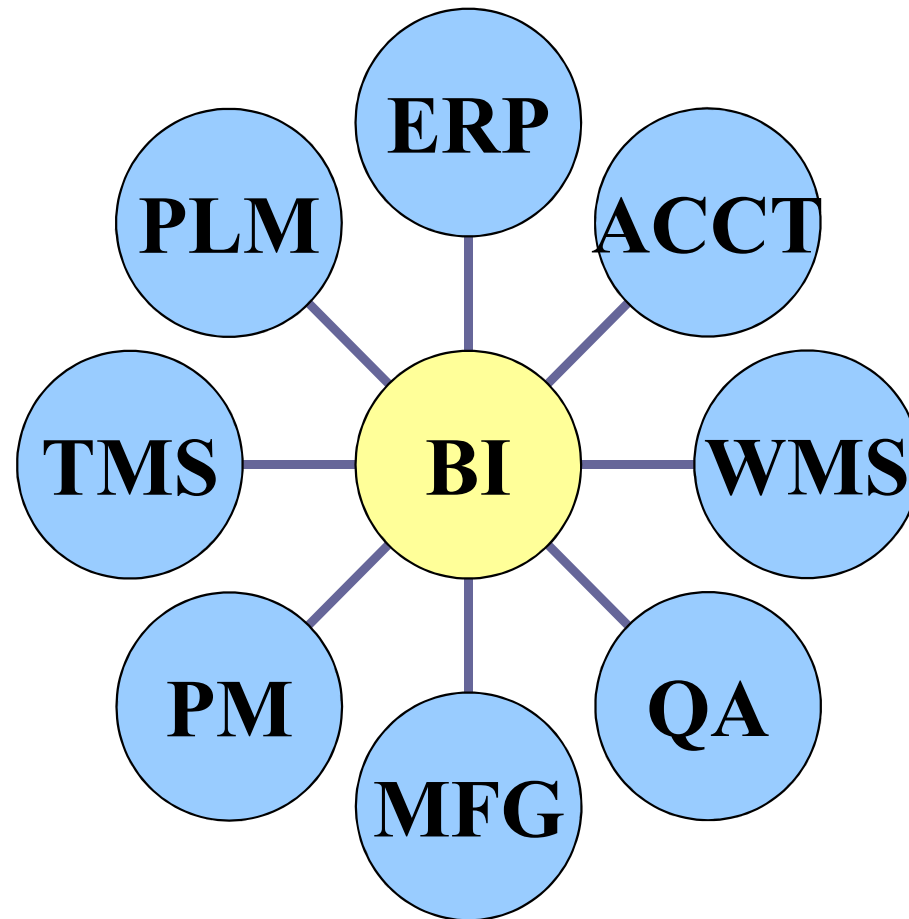
Helpful Technologies

- **Business Software Applications**
 - ERP Systems, industry-specific software
- **Auto-ID**
 - Barcode Scanning, RFID, *others*
- **EDI & Web-based capabilities**
- **Analytic Software**
 - Third-Party or Homegrown
 - Integrated or Stand-Alone

Close Data Gaps

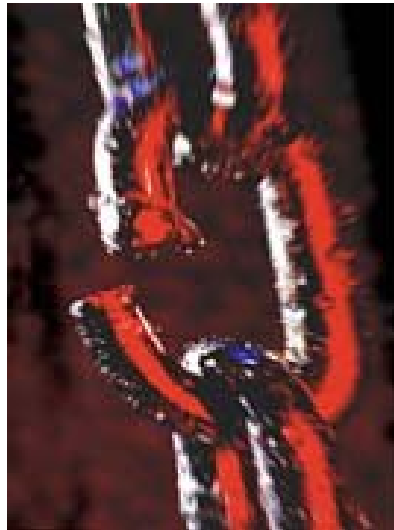


Technology Relationships



Section 6

COST VERSUS VALUE



Cost versus Value

- What is the **cost** of supply chain fraud?
- What's the **value** of reducing fraud?
- How will not addressing fraud impact the creation of timely & accurate financials?

Fraud Ramifications – 1

- **Manufacturing Downtime** (*cleaning, repair*)
- **Customer Credits** (*Mfg / Dist → Retailer*)
- **Consumer Liabilities** (*injury, death*)
- **No Products To Market** (*new or old*)
- **Delayed Advertising** (*new and old*)
- **Damage Control Ads**
 - Possibly in excess of normal ad campaigns

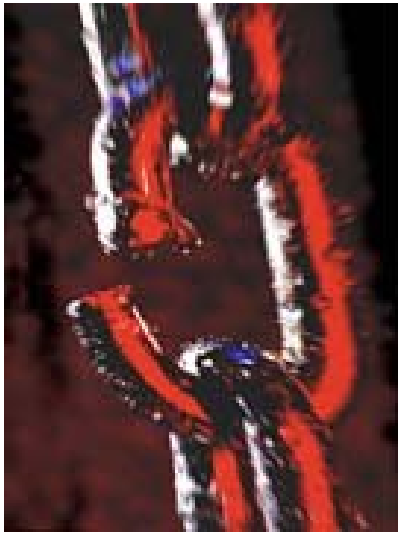
Fraud Ramifications – 2

- **Vendor Compliance chargebacks**
- **Product Recall** (*Ship, Return, Destroy*)
 - What about environmental regulations?
- **Product Rework / Salvage**
- **Loss Of Brand Trust**
- **Loss Of Market Share To Competitor**
- **Regulatory Investigations & Audits**

Summary

- The Supply Chain is Internal & External
- Supply Chain Fraud is Internal & External
- Fraud examination beyond accounting
- Think Enterprise, Not Department
- Utilize available technologies
- Perform Risk Assessments
- Engage Employees, Customers, Suppliers
- Be Diligent, Responsible, & Ethical

Thank You



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