

**Using analytics to your advantage –
interpretations from COSO’s new Fraud Risk
Program Guidance**



Topics for discussion

About the new COSO Fraud Risk Guidance to Principle #8

Mapping COSO to fraud risks and analytics examples

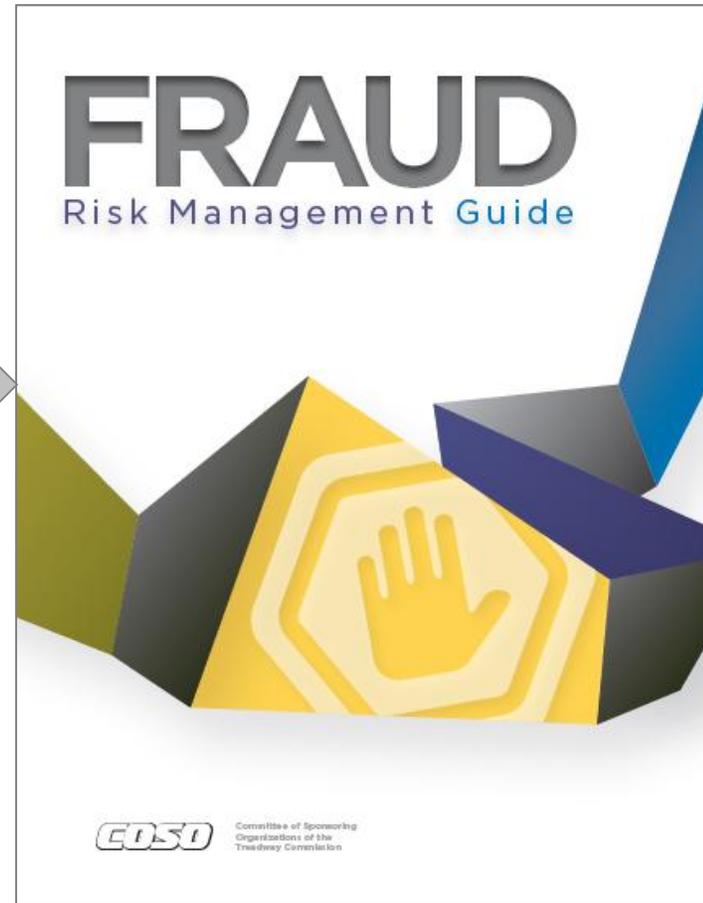
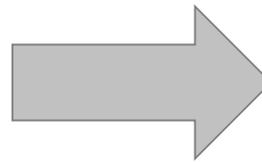
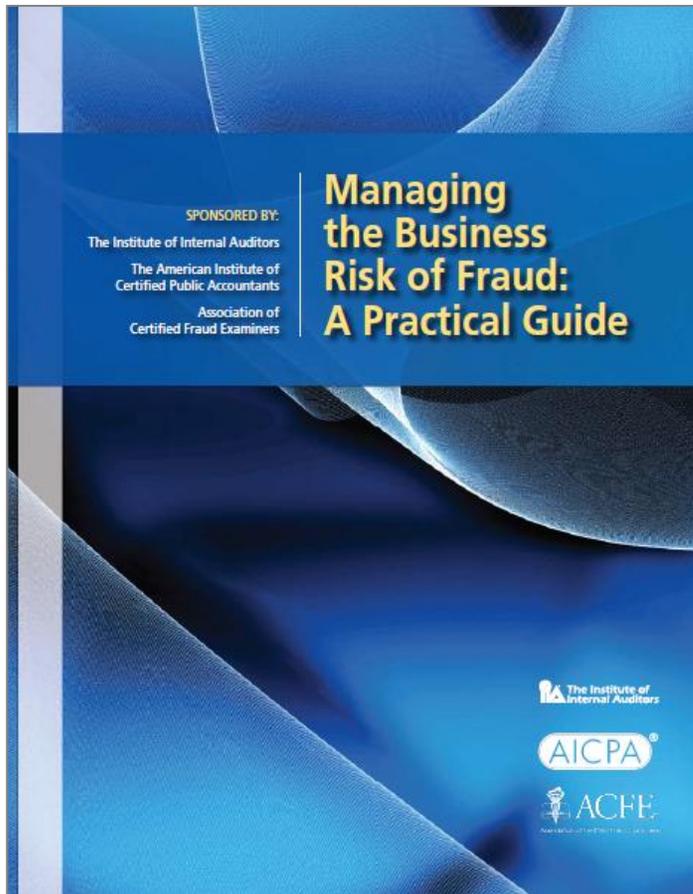
Fraud risk governance

Analytics use case examples

About the new COSO Fraud Risk Guidance to Principle #8



Progressing with the times



About the new COSO Guidance

- ▶ Stems from 2013 Internal Controls Framework
- ▶ Specifically addresses Principle #8 – Fraud Risk Assessment
- ▶ Incorporates previous ACFE / IIA / AICPA publication on “Managing the Business Risk of Fraud”
- ▶ Released September 2016
- ▶ Maps to the 17 COSO Internal Controls Principles set forth in the 2013 Framework
- ▶ Increased focus on data analytics
- ▶ Scope is broader than just doing “fraud risk assessments”

More than just a fraud risk assessment

Guide includes guidance on establishing an overall fraud risk management program including:

- ▶ Establishing fraud risk governance policies
- ▶ Performing a fraud risk assessment
- ▶ Designing and deploying fraud prevention and detect control activities
- ▶ Conducting investigations
- ▶ Monitoring activities

ROI considerations

2016 ACFE Report to the Nations



Companies without data monitoring/analytics in place suffered a median loss per incident of **\$200k** vs. \$92k with data analytics in place.

20 investigations per year x \$102k = \$2.16M in savings per year.

Figure 59: Median Loss Based on Presence of Anti-Fraud Controls

Control	Percent of Cases	Control in Place	Control Not in Place	Percent Reduction
Proactive Data Monitoring/Analysis	36.7%	\$92,000	\$200,000	54.0%
Management Review	64.7%	\$100,000	\$200,000	50.0%
Hotline	60.1%	\$100,000	\$200,000	50.0%
Management Certification of Financial Statements	71.9%	\$104,000	\$205,000	49.3%
Surprise Audits	37.8%	\$100,000	\$195,000	48.7%
Dedicated Fraud Department, Function, or Team	41.2%	\$100,000	\$192,000	47.9%
Job Rotation/Mandatory Vacation	19.4%	\$89,000	\$170,000	47.6%
External Audit of Internal Controls over Financial Reporting	67.6%	\$105,000	\$200,000	47.5%
Fraud Training for Managers/Executives	51.3%	\$100,000	\$190,000	47.4%
Fraud Training for Employees	51.6%	\$100,000	\$188,000	46.8%
Formal Fraud Risk Assessments	39.3%	\$100,000	\$187,000	46.5%
Employee Support Programs	56.1%	\$100,000	\$183,000	45.4%
Anti-Fraud Policy	49.6%	\$100,000	\$175,000	42.9%
Internal Audit Department	73.7%	\$123,000	\$215,000	42.8%
Code of Conduct	81.1%	\$120,000	\$200,000	40.0%
Rewards for Whistleblowers	12.1%	\$100,000	\$163,000	38.7%
Independent Audit Committee	62.5%	\$114,000	\$180,000	36.7%
External Audit of Financial Statements	81.7%	\$150,000	\$175,000	14.3%

Mapping the COSO Framework to fraud risks



COSO 2013 Internal Controls Framework

Principles 1 through 5

Control Environment

COSO Framework Principles

1. The organization demonstrates a commitment to integrity and ethical values
2. The board of directors demonstrates independence from management and exercises oversight of the development and performance of internal control.
3. Management establishes, with board oversight, structures, reporting lines, and appropriate authorities and responsibilities in the pursuit of objectives.
4. The organization demonstrates a commitment to attract, develop, and retain competent individuals in alignment with objectives.
5. The organization holds individuals accountable for their internal control responsibilities in the pursuit of objectives.

Fraud Risk Management Principles

1. The organization establishes and communicates a fraud risk management program that demonstrates the expectations of the board of directors and senior management and their commitment to high integrity and ethical values regarding managing fraud risk.

Analytic Considerations

- Executive reporting
- Interactive dashboards
- Targeted analysis around metrics, compliance and ratios



COSO Framework Principles 6 through 9

Risk Assessment

COSO Framework Principles

6. The organization specifies objectives with sufficient clarity to enable the identification and assessment of risks relating to objectives.

7. The organization identifies risks to the achievement of its objectives across the entity and analyzes risks as a basis for determining how the risks should be managed.

8. The organization considers the potential for fraud in assessing risks to the achievement of objectives.

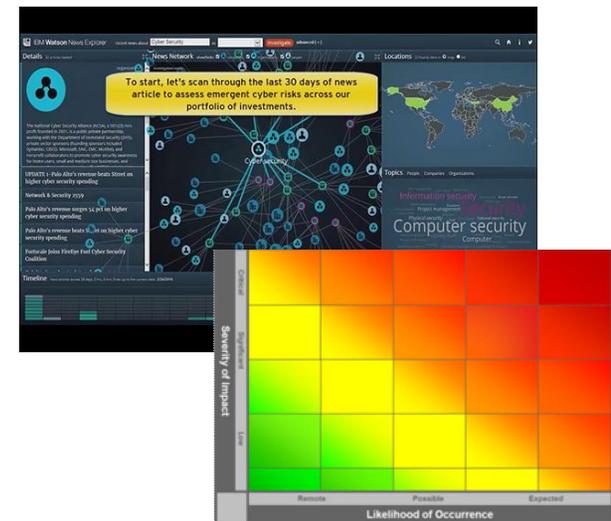
9. The organization identifies and assesses changes that could significantly impact the system of internal control.

Fraud Risk Management Principles

2. The organization performs comprehensive fraud risk assessments to identify specific fraud schemes and risks, assess their likelihood and significance, evaluate existing fraud control activities, and implement actions to mitigate residual fraud risks.

Analytic Considerations

- Surveys & heat maps
- Media scans and external sources such as industry news
- Complaints database



COSO Framework Principles 10 through 12

Control Activities

COSO Framework Principles

10. The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.

11. The organization selects and develops general control activities over technology to support the achievement of objectives.

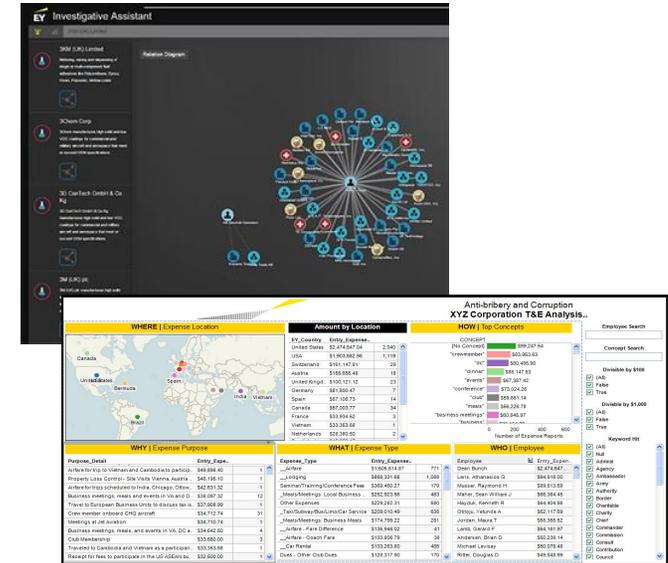
12. The organization deploys control activities through policies that establish what is expected and procedures that put policies into action.

Fraud Risk Management Principles

3. The organization selects, develops, and deploys preventive and detective fraud control activities to mitigate the risk of fraud events occurring or not being detected in a timely manner.

Analytic Considerations

- ABAc analytics
- P2P, O2C, T&E, CRM analysis
- General ledger transaction analysis



COSO Framework Principles 13 through 15

Information & Communication

COSO Framework Principles

13. The organization obtains or generates and uses relevant, quality information to support the functioning of other components of internal control.

14. The organization internally communicates information, including objectives and responsibilities for internal control, necessary to support the functioning of internal control.

15. The organization communicates with external parties regarding matters affecting the functioning of other components of internal control.



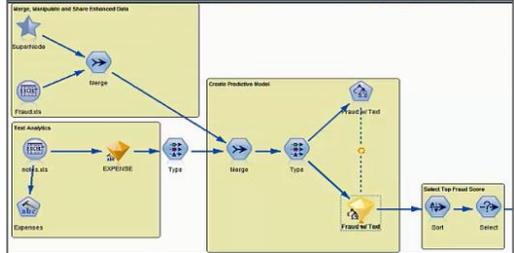
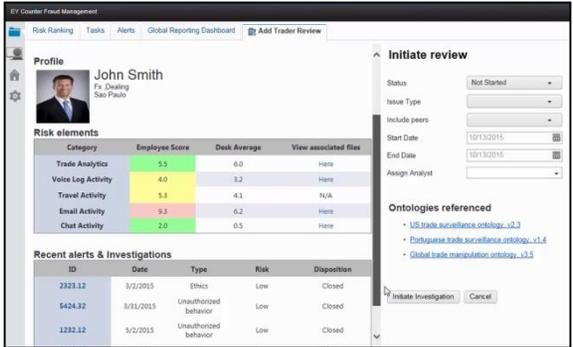
Fraud Risk Management Principles

4. The organization establishes a communication process to obtain information about potential fraud and deploys a coordinated approach to investigation and corrective action to address fraud appropriately and in a timely manner.

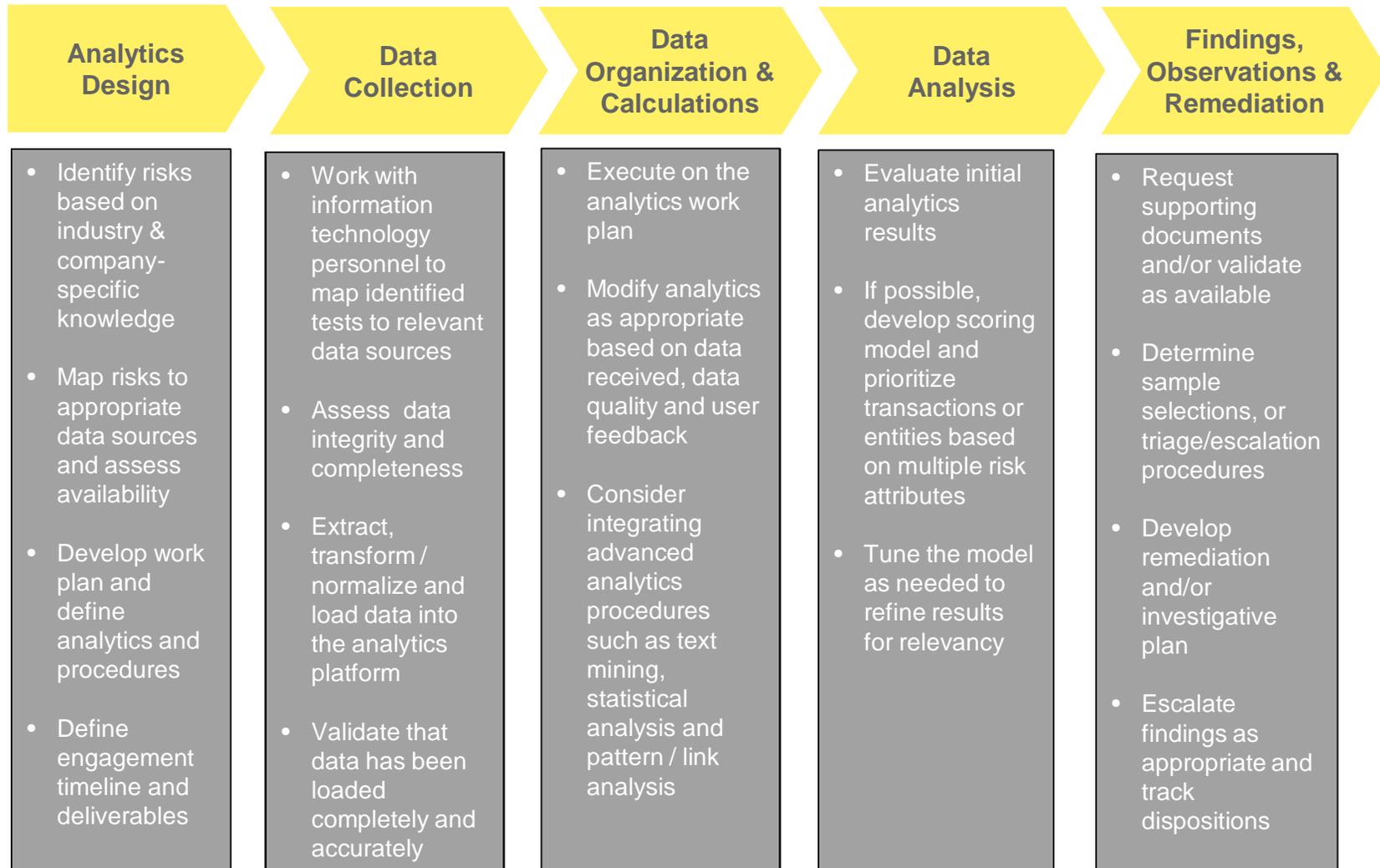


Analytic Considerations

- Case management
- Escalation and triage
- Review workflow management



Graphic 1: Forensic Data Analytics Process used in COSO guidance



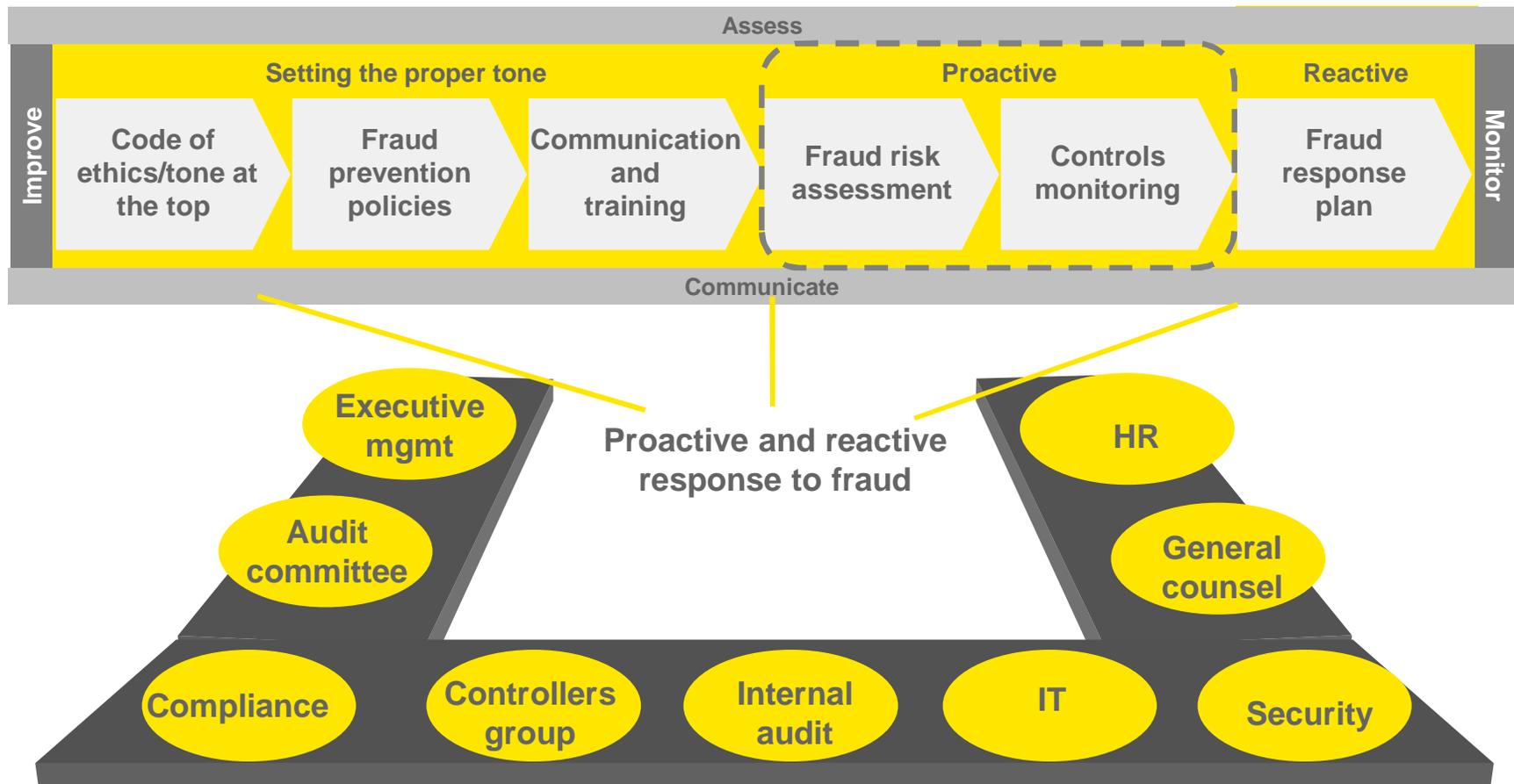
Fraud risk governance



Who owns fraud?

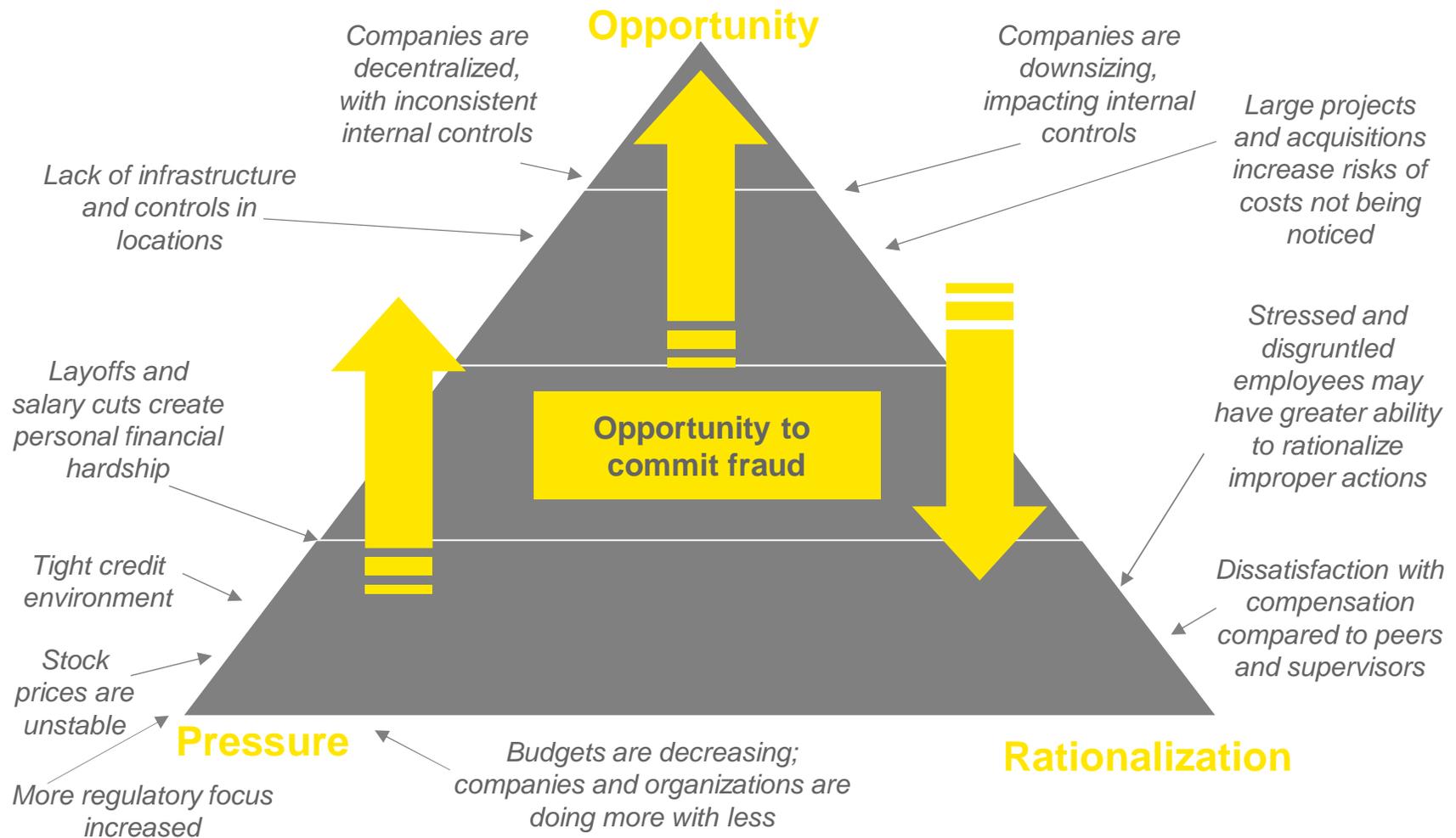
Having a seat at the table from a governance perspective

Companies are creating plans to address fraud proactively and reactively



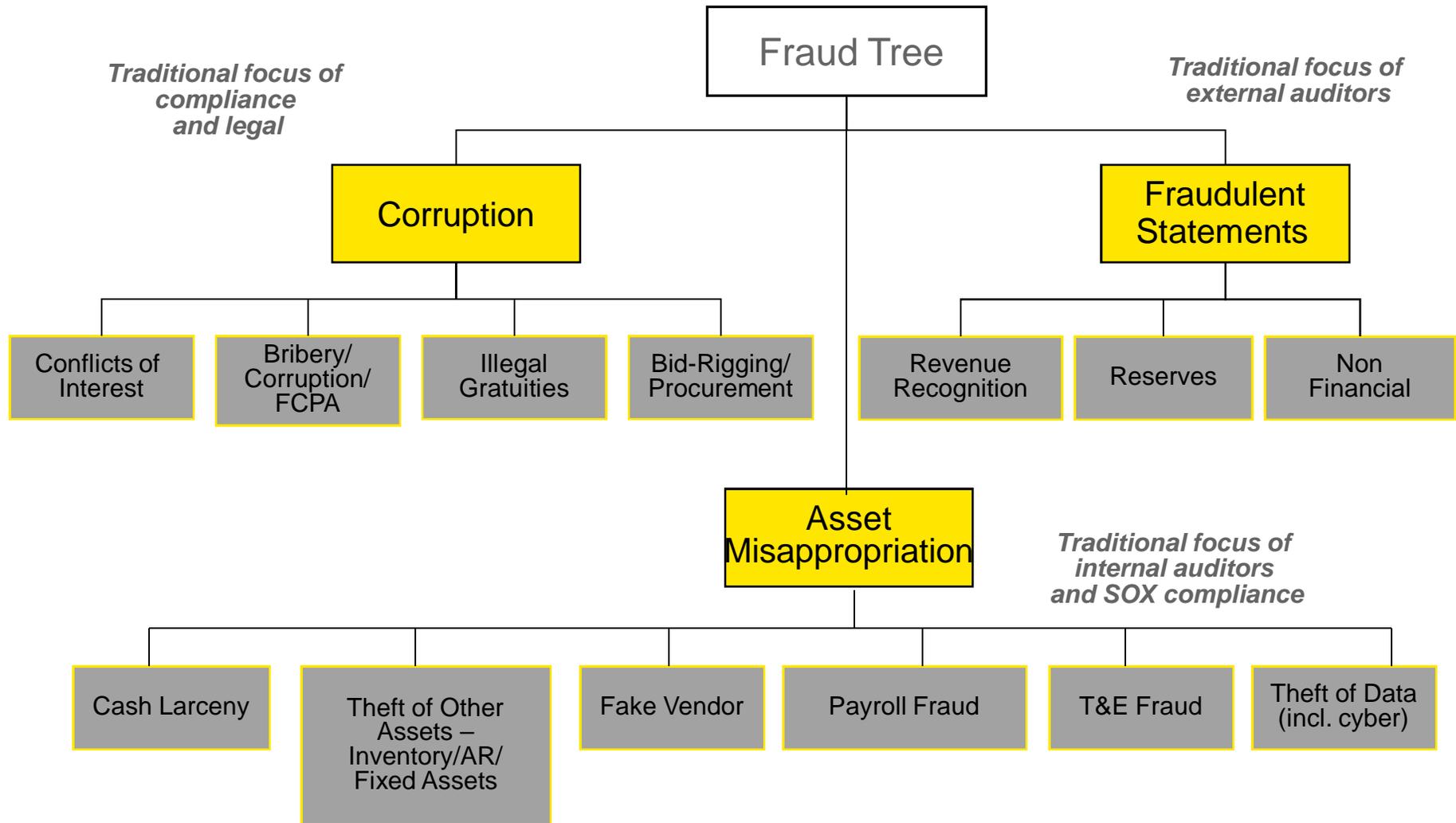
Why people commit fraud: the fraud triangle

Cressey's "fraud triangle"



Fraud tree: Need to consider all three categories

New website coming:



Frequent compliance analytics risk areas, particularly in emerging markets

Meals & Entertainment	Marketing & Events	CRM and Sales
Information Security/Insider Threat	Employee Payroll	Sales, Distributor & Margin Analysis
Vendor Payments / AP	Capital Projects	Accounting Reserves
Inventory	3 rd Party Due Diligence & Watchlist, Shell Companies	Charity & Donations

Emerging monitoring activities may include...

Social Media Monitoring	Advanced Email Monitoring	Mobil Devices
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Analytics use cases



Big data techniques to counter fraud

- ▶ Multiple data sources – structured and unstructured
- ▶ Data visualization
- ▶ Text analytics
- ▶ Payment/transaction risk scoring
- ▶ Predictive modeling – technology assisted monitoring
- ▶ Case management, issue coding and built in workflow
- ▶ Flexible deployment models

Dashboard examples

Plan and build tests for:

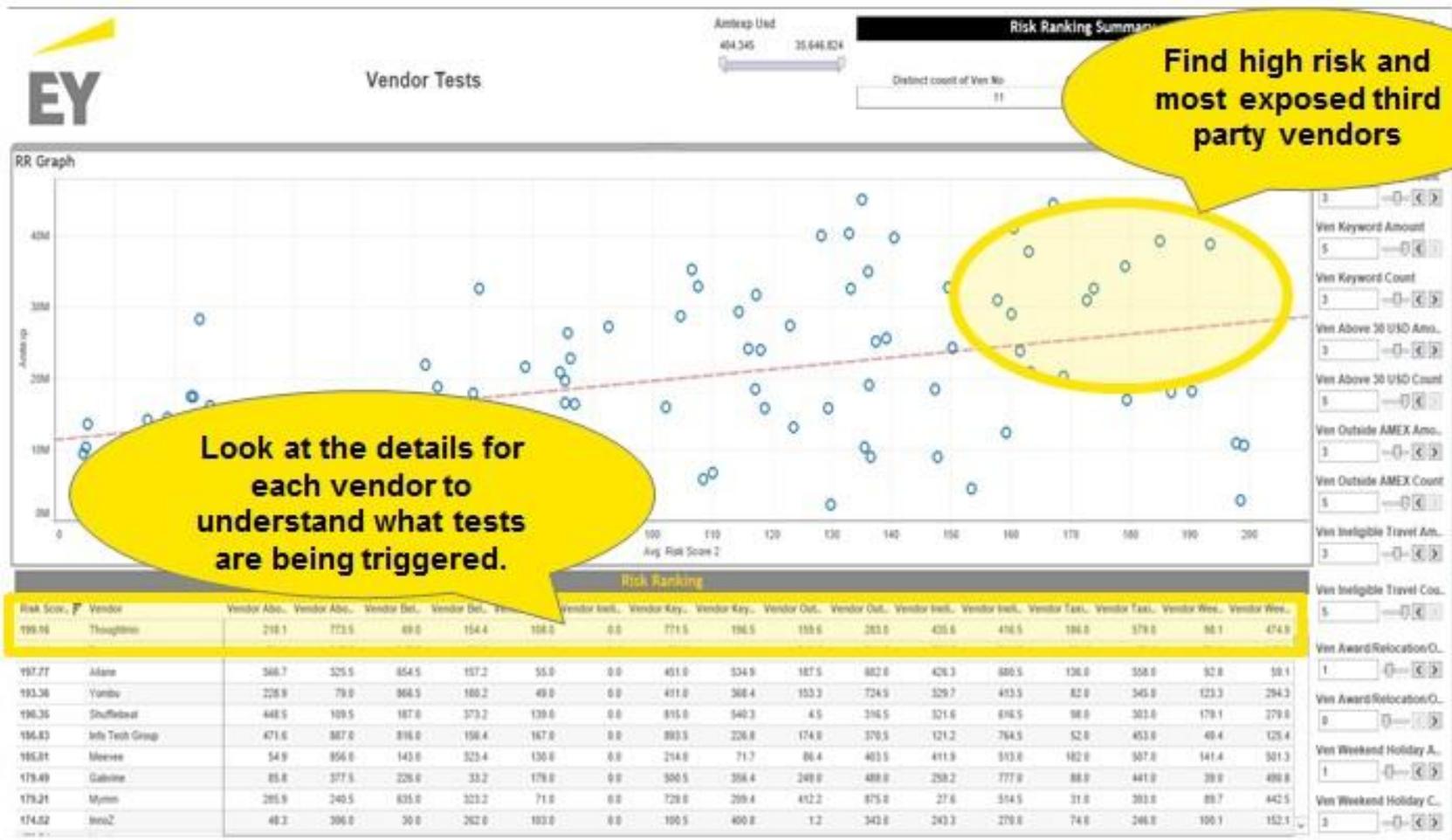
- ü Payment risk scoring
- ü Vendor risk scoring
- ü High risk transactions
- ü Revenue recognition or sales commissions
- ü Conflicts of interests

Additional tests for enhanced reviews:

- ü Inventory management
- ü Salaries & payroll
- ü Employee travel & entertainment
- ü FCPA/UKBA (corruption risks)
- ü Selected compliance topics



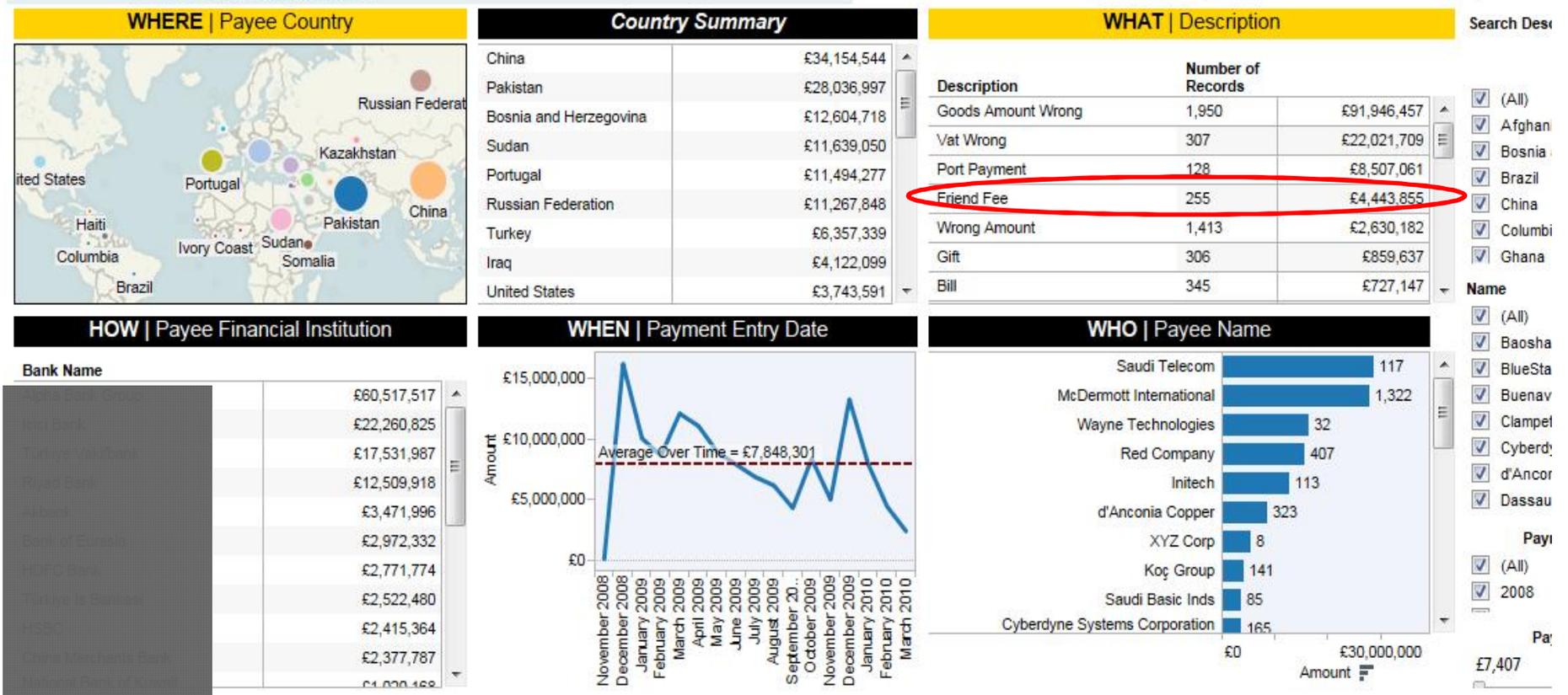
Risk ranking



Data visualization: Accounts payable monitoring

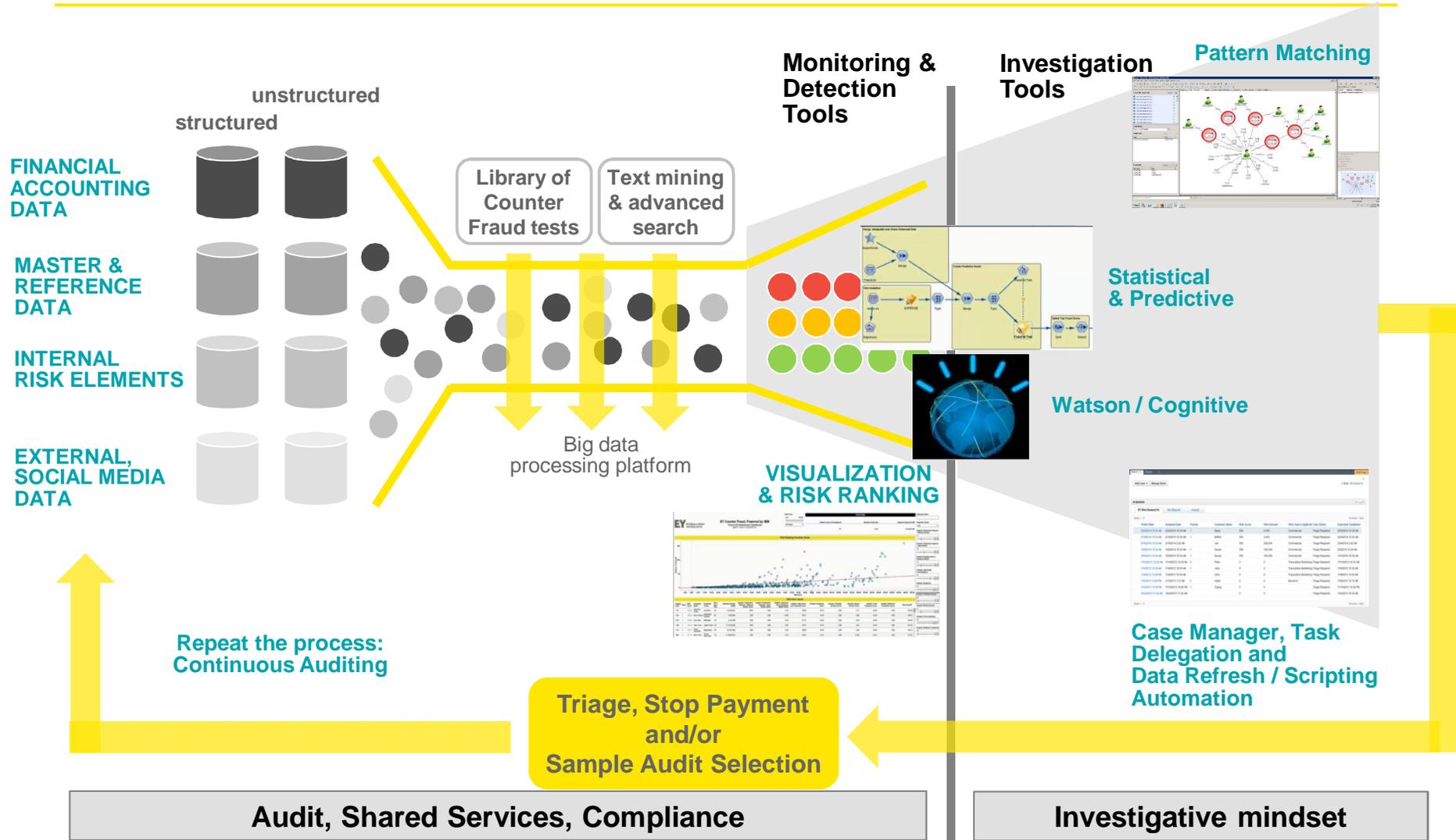
High risk payment descriptions

EY Anti Bribery & Corruption Analytics | XYZ Corp Accounts Payable Stratification Analysis



Forensic data analytics framework

An integrated, platform – from a work flow and monitoring perspective



Current challenge - Legacy surveillance & anti-fraud tools are falling short

- ▶ Legacy surveillance technologies suffer from overreliance on rule-based triggers, ranging from simple if-then statements to basic “keyword” searches on text fields and electronic communications...both of which can be easily circumvented.
- ▶ The approach described above results in increasing volumes of surveillance alerts and false positives, while real threats get buried and go undetected.
- ▶ A tool, in and of itself, will never be effective without the support by the right team with the right skills sets.

Five success factors in deploying forensic data analytics

1. Focus on the low hanging fruit, the priority of the first project matters
2. Go beyond traditional “rules-based” tests – incorporate big data thinking
3. Communicate: share information on early successes across departments / business units to gain broad support
4. Leadership gets it funded, but interpretation of the results by experienced or trained professionals make the program successful
5. Enterprise-wide deployment takes time, don't expect overnight adoption

Thank you

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