

Changing Trends & Technologies in the Fight Against Fraud

Chris McAuley
Director – Fraud & Financial Crime, SAS



SAS Fraud & Financial Crime

AGENDA

- Current trends in Fraud and Financial Crime
- How to create an optimal fraud solution
- Benefits to your organisation
- Case studies
- Our commitment to Fraud and Financial Crime



SAS Fraud & Financial Crime

IT IS A BIG, GLOBAL PROBLEM



Source: Association of Certified Fraud Examiners

- Typical organisations lose 5% of revenues to fraud each year
- Estimated to be a global loss of more than \$3.5 trillion
- Industries most commonly victimised:
 - Banking & Financial Services
 - Government and Public Administration
 - Manufacturing Sector



SAS Fraud & Financial Crime

TOUGH CHALLENGES FOR ORGANISATIONS

Estimated **global financial crime IT spending** will grow to **\$4.3 billion USD by 2013.**

Chartis Research

The **global AML market** is currently at \$450 million USD, will grow at a CAGR of 9%, reaching **\$690 million USD in 2015.**

Aite Group 2011

Potential projected global fraud losses related to occupational fraud **are more than \$3.5 trillion USD.**

ACFE 2012 Report to the Nations

In the **UK**, estimates show that 55% of **fraud** – a massive **£21 billion** – is committed against the **public sector**.

National Fraud Authority

Tax evasion losses are estimated at **\$3.1 trillion** for 145 countries in the world which represent 98% of the world GDP between them.

The Tax Justice Network

“Cyberthieves have cost US companies and their banks **more than \$15 billion in the past five years**, the FDIC found in a recent study.”

Financial Times, 2012

Organisations are faced with tough challenges to **focus on reducing losses** AND **ensure a smooth customer journey** AND take effective, timely action across:

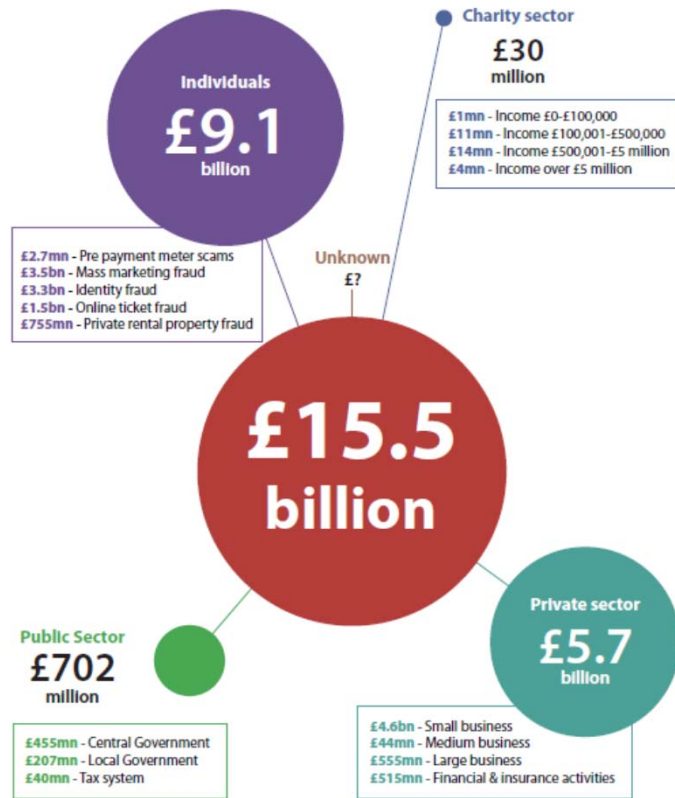
- ✓ Channels and Products
- ✓ Brands and Business Lines
- ✓ Relationship Levels & Types
- ✓ Transaction Types



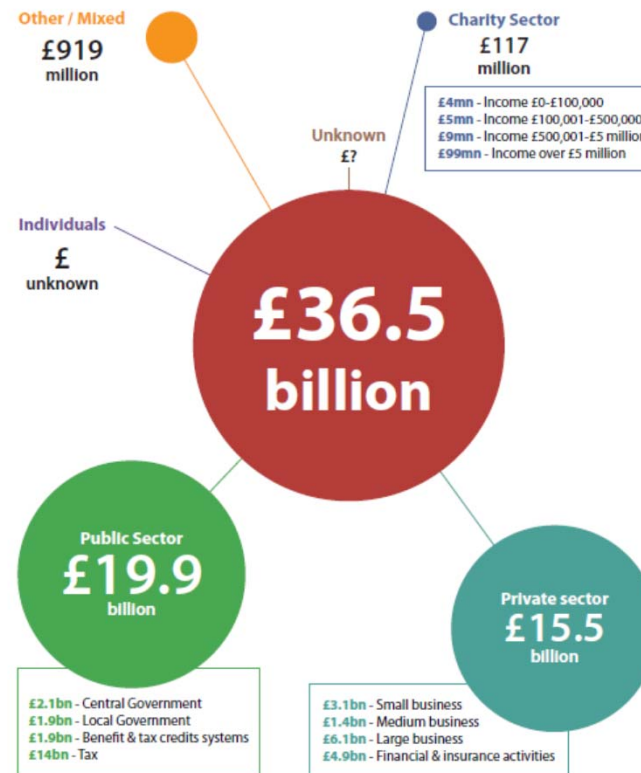
SAS Fraud & Financial Crime

SCALE OF THE PROBLEM

Identified Fraud



Hidden Fraud



Source: UK National Fraud Authority, June 2013

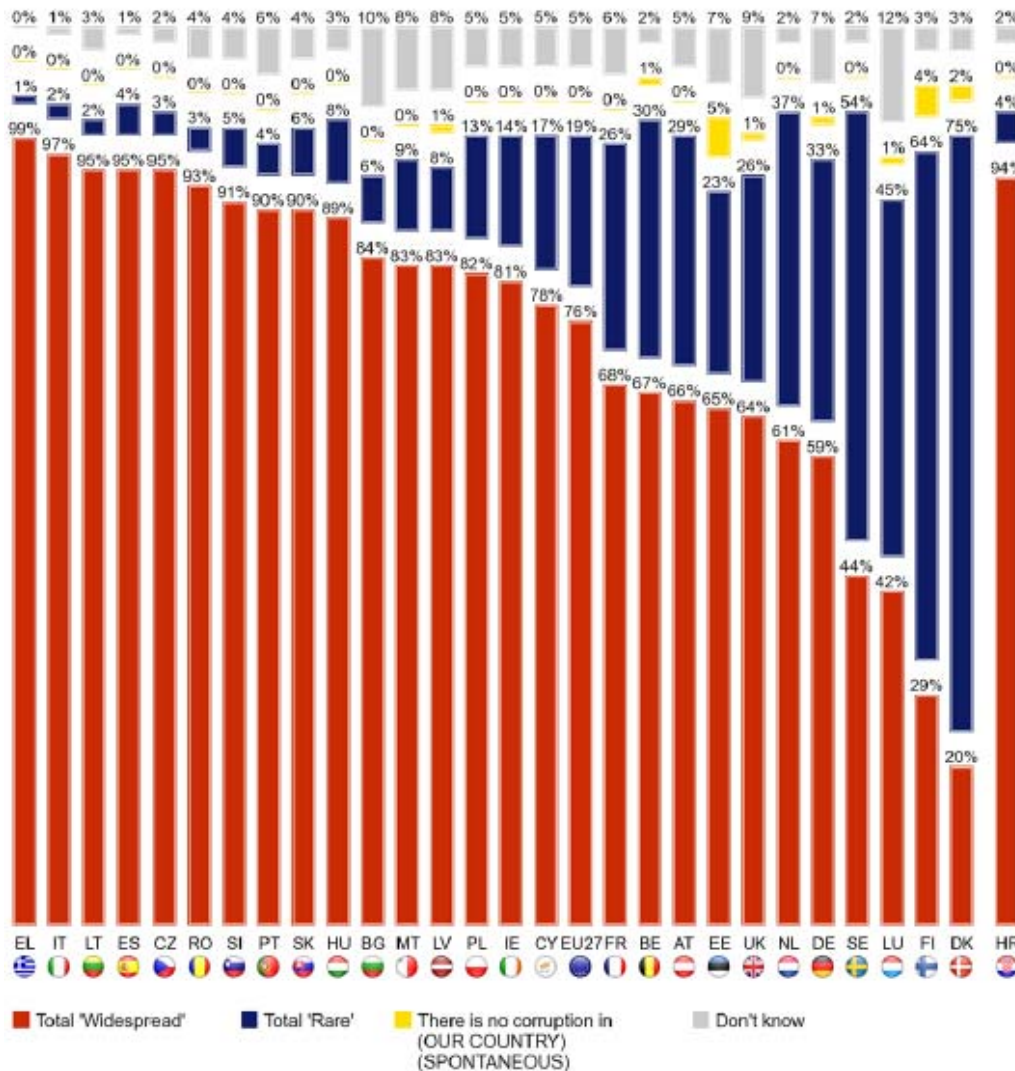
SAS Fraud & Financial Crime

FRAUD IN THE NEWS

“How widespread is the problem of fraud & corruption in our country”?

EU data

[://ec.europa.eu/public_opinion/archives/eb_special_399_380_en.htm](http://ec.europa.eu/public_opinion/archives/eb_special_399_380_en.htm)

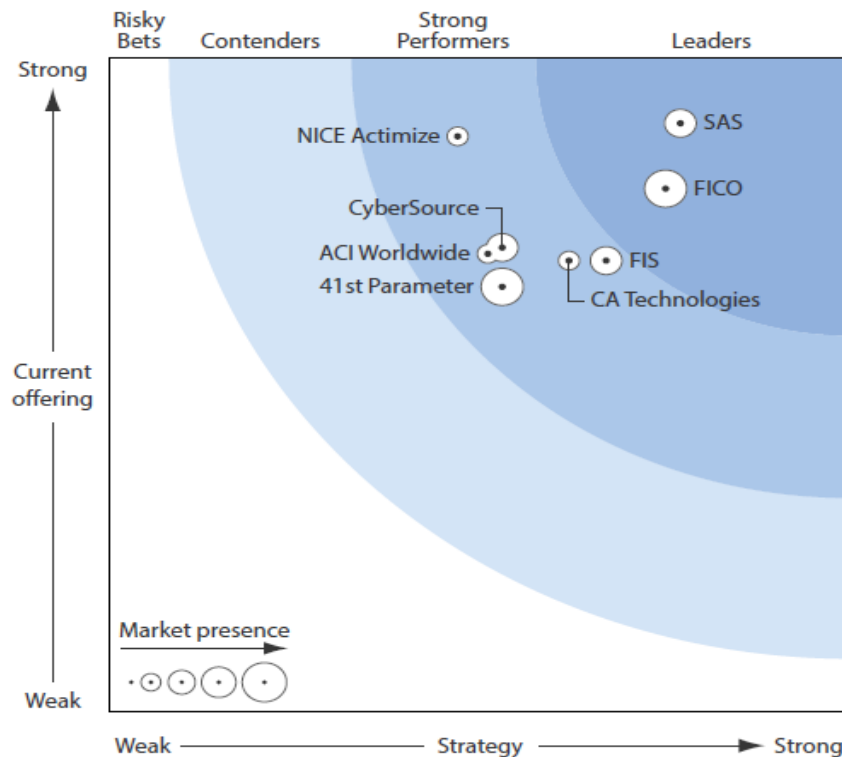


SAS Fraud & Financial Crime

OUR POSITION IN THE INDUSTRY

A 2013 market review positioned SAS as leaders for Fraud and Financial Crime

Forrester Wave™: Enterprise Fraud & Financial Crime Management, Q1 2013



1. End to end holistic view of risk
2. One integrated platform
3. Hybrid approach for fraud detection
4. Consortium model
5. Large industry expertise for fraud and financial crime
6. Large customer base



Current approaches are no longer fit for purpose:

- **Silo'd by line of business**
- Operate on one channel only
- Very reactive to fraud once it has already occurred
- **Often very basic rules or manual reporting**
- No proactive steps taken to combat cross channel behaviour
- Evidence insufficient to act upon
- Investigation time-consuming

Instead we need to focus on:

- Removing silo's
- **Hybrid of analytical techniques to be used, driven by (holistic) data sources**
- Leveraging existing fraud lessons learnt in industry
- **Pro-active approach to fraud detection analytics, staying one step ahead of the fraudster**
- Provide investigators with the intelligence they need to make decisions, with an advanced user tool



business analytics

“evidence based investigations”



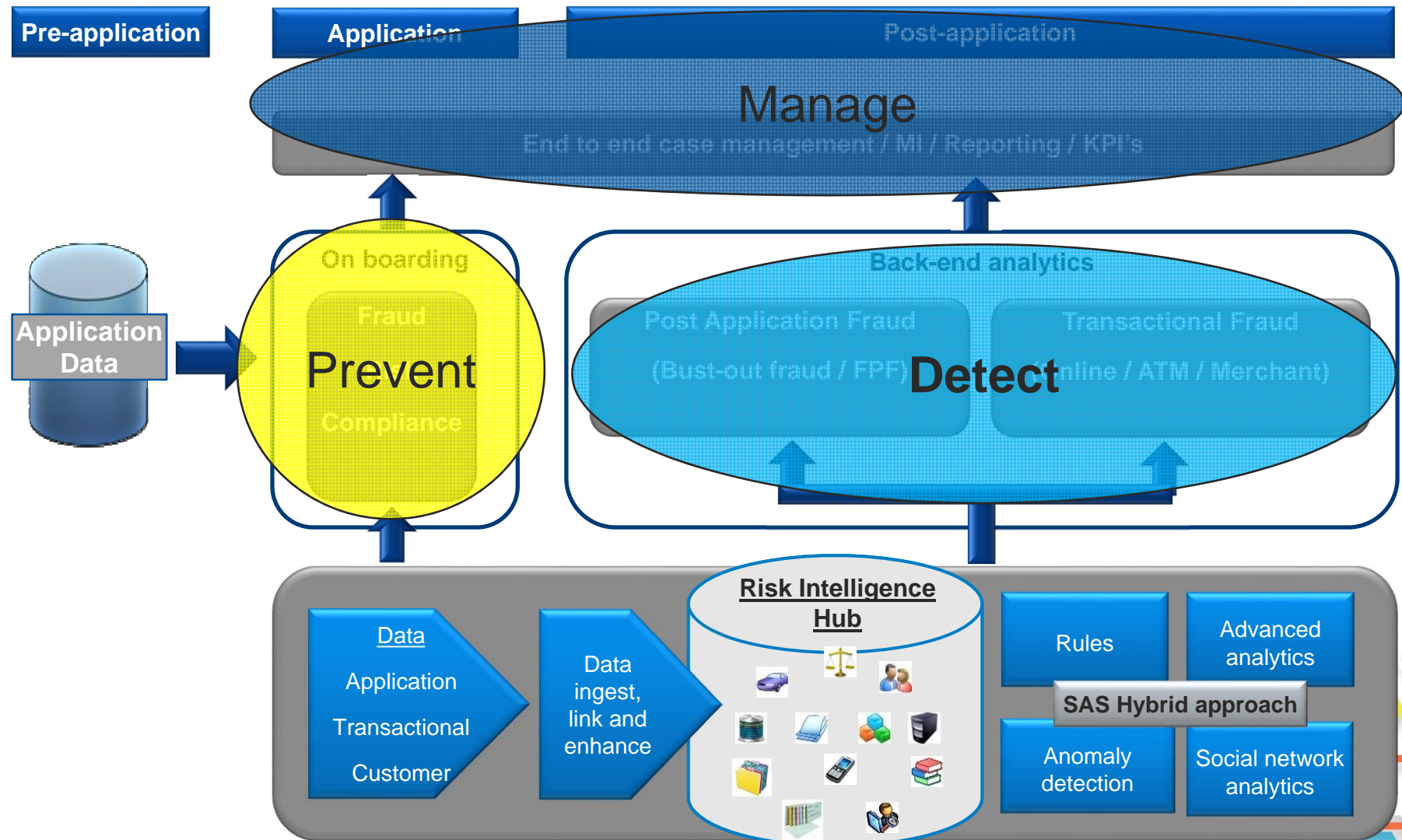
“evidence based investigations”

analytics → data = suspicious cases



SAS Fraud & Financial Crime

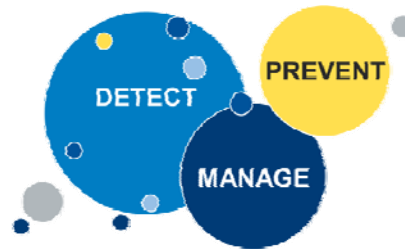
BANKING OPERATING MODEL



SAS Fraud & Financial Crime

END TO END SOLUTION OFFERING

- SAS offers an end-to-end approach to detect, prevent and manage fraud across your enterprise.

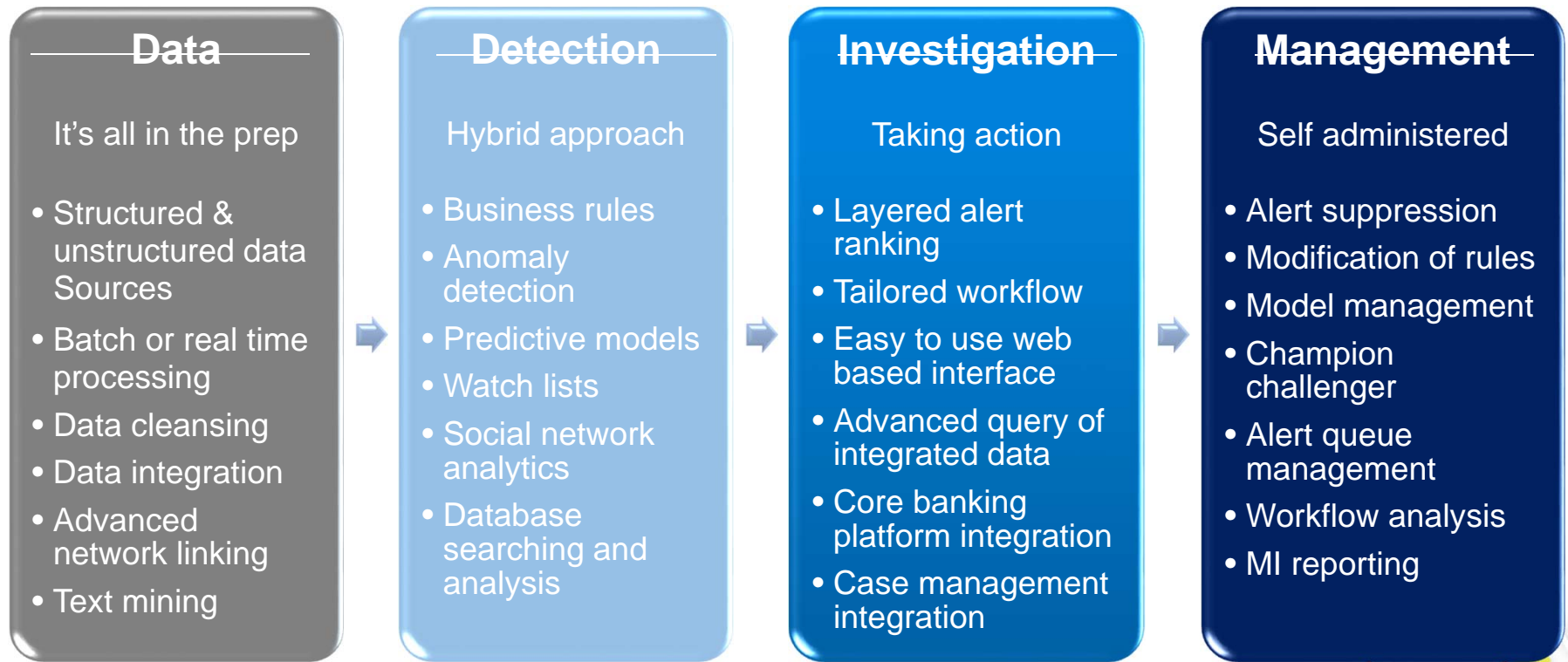


- Developed with Global FIs and Government agencies, industry specific modules contain expert knowledge and experience which enrich the solutions, maximising the value we provide for customers:
 - Increasing fraud savings and decreasing fraud losses
 - Optimising your 'good' customers' journey
 - Allowing your organisation to set the trend in the industry and be one step ahead of the competition



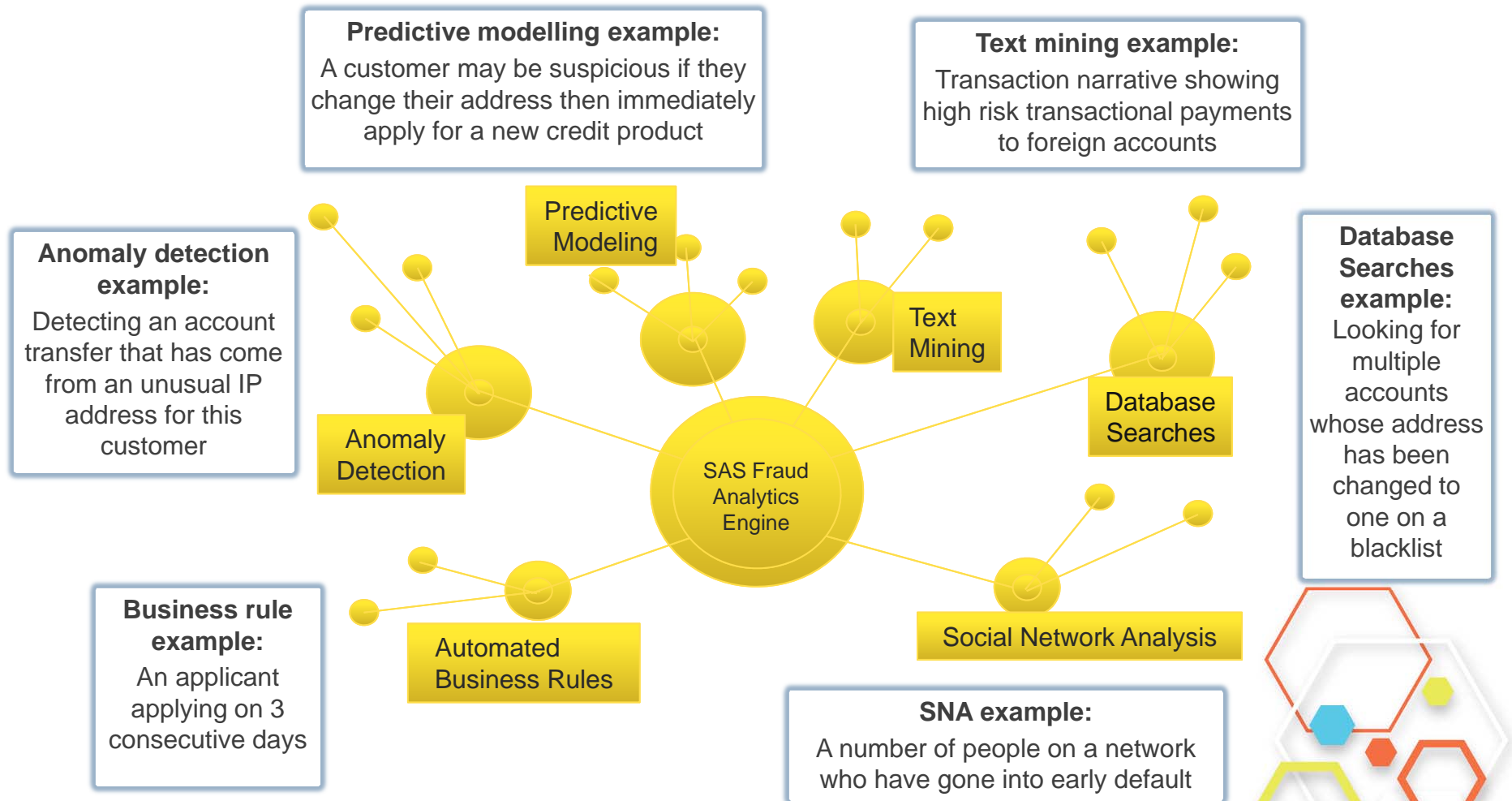
SAS Fraud & Financial Crime

OUR APPROACH



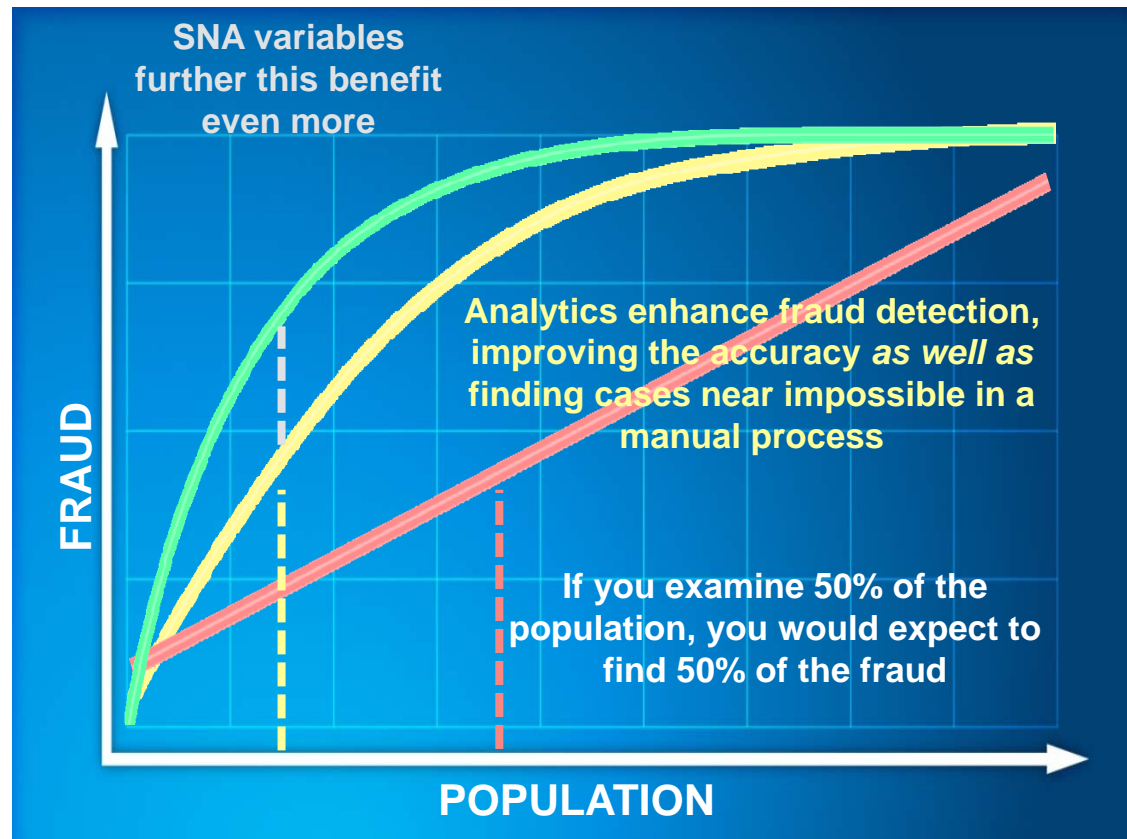
SAS Fraud & Financial Crime

OUR UNIQUE APPROACH TO ANALYTICS



SAS Fraud & Financial Crime

FOCUS ON DETECTION POWER OF SOCIAL NETWORK ANALYTICS

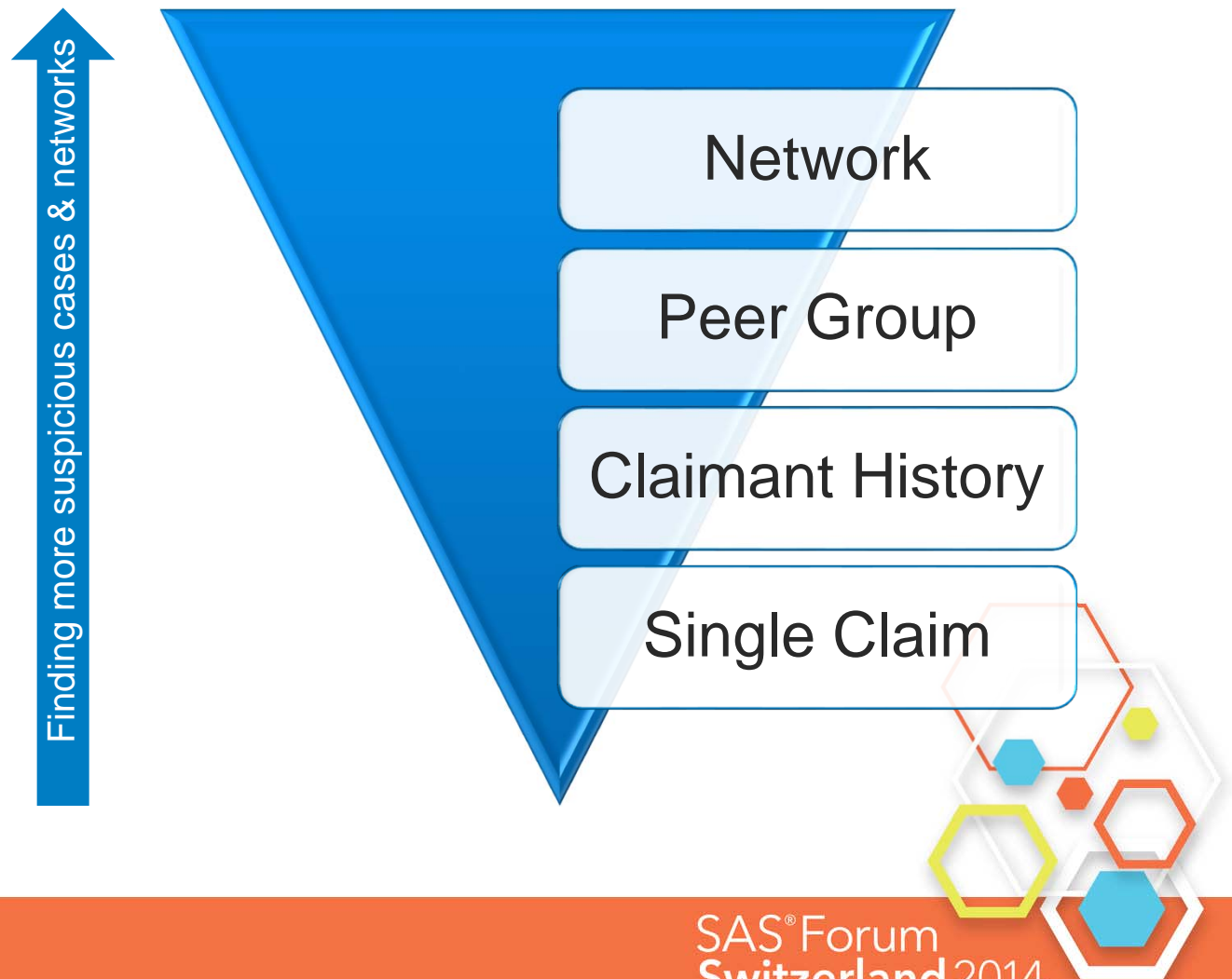


- Advanced analytics with SNA
- Advanced analytics without SNA
- Random

If the accuracy of a model doubles through the inclusion of network level variables alone, an investigation team would be able to find twice the amount of fraud with the same number of referrals!



- Moving beyond simple rules based systems
- Example for an insurance company



DETECT:

Industry knowledge and world-class advanced analytics allow:

- Detection of more actionable fraud cases
- Increased fraud savings
- Effective real-time actioning

PREVENT:

Generating a holistic risk-based view allows:

- 'Bad' customers to be handled appropriately, often in real-time
- Good' customers to be serviced more easily

MANAGE:

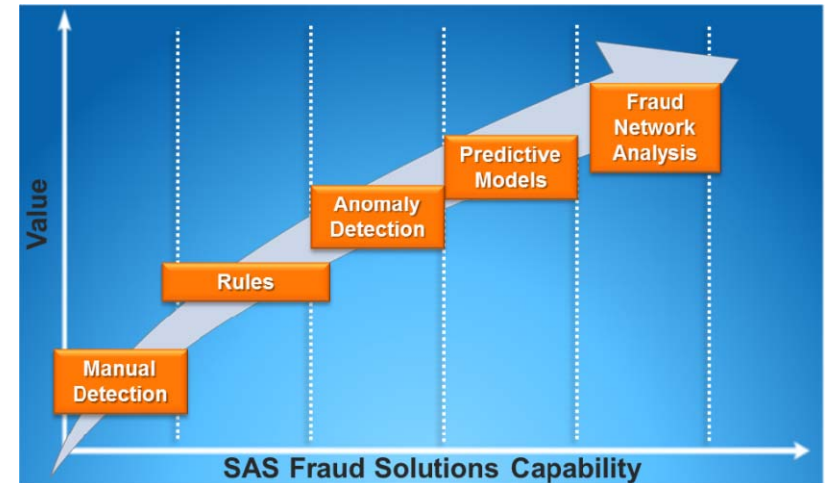
Advanced GUIs allow:

- Efficient investigations with enterprise data in single environment
- Workflow and case management
- Self-administered model

SAS Fraud & Financial Crime

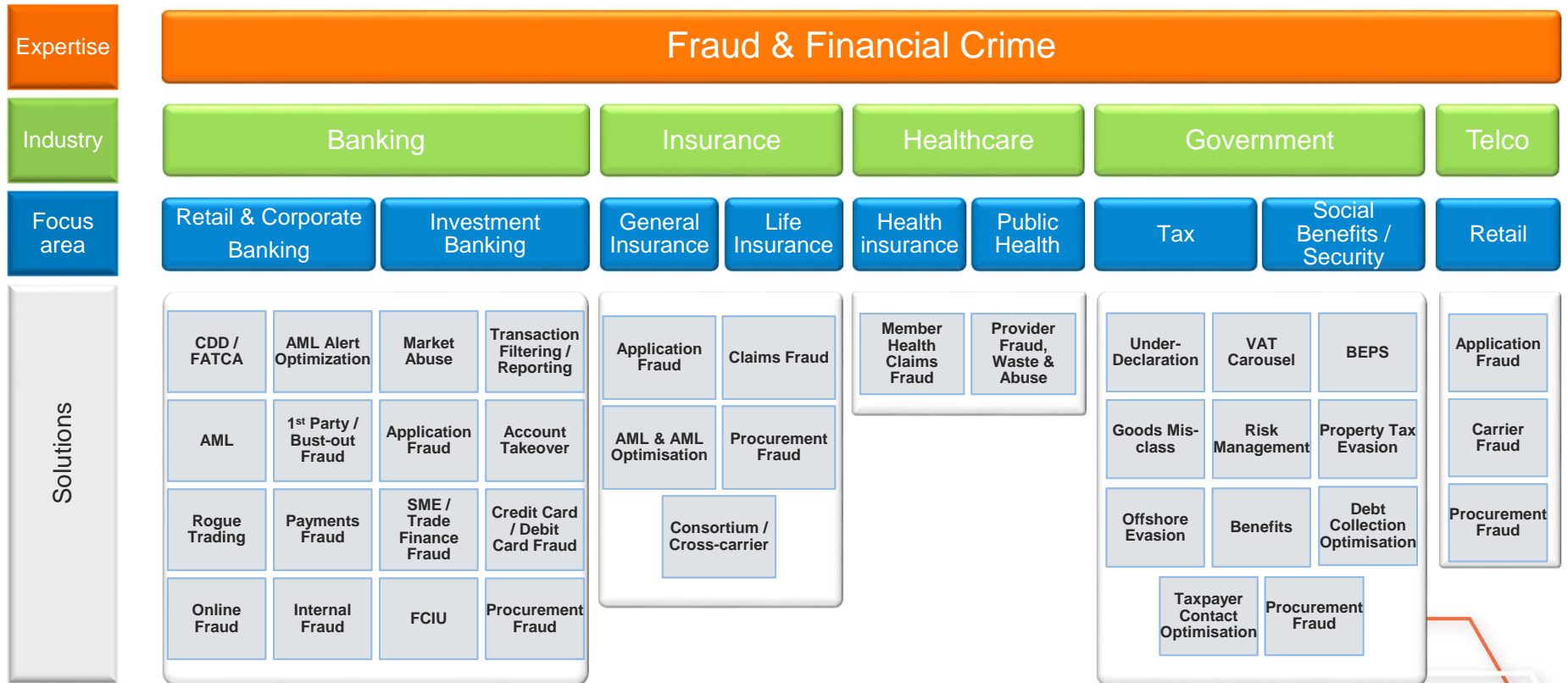
HOW SAS CAN HELP YOUR ORGANISATION

- The SAS Fraud Solutions run on a single platform (SAS)
- Analytical capability and application to different areas of the business can therefore be developed over time as a strategic investment
- The solutions offer:
 - ✓ Full transactional, entity, product and network centric monitoring
 - ✓ Multiple deployment options
 - ✓ Scalable to national level data volumes
 - ✓ Ability to work in real-time and in batch
 - ✓ Portfolio of industry specific solutions, examples shown to the right ...



SAS Fraud & Financial Crime

A SCALABLE ENTERPRISE SOLUTION



SAS Fraud & Financial Crime

TYPICAL QUANTITATIVE BENEFITS

- **More suspicious cases identified**

Including both previously undetected fraudulent networks and extensions to already identified fraud

"We have doubled the number of fraud cases found using SNA"

Head of Fraud - UK

"I expect savings of 5% to 10%"

Portfolio and Claims Supervisor, Poste Assicura, Italy

- **Reduction in false positive rates**

Significant improvement in 'quality' of suspicious cases passed for investigation

"84% of the claims flagged as possibly fraudulent, turned out to be fraud. A 69% uplift in suspicious claim detection compared with the old system.."

SIU Manager, Major Tier 1 USA Insurer

"We calculated that the accuracy rate of fraud rings identified by the social network analysis solution to be, with reliability, 85 percent"

Director of Research, Los Angeles County, USA

- **Improved investigation efficiency**

Each referral taking 1/2-1/3 the time to investigate using SAS' link analysis visualization

"What used to take me most of a day, now takes 10 minutes."

SIU Manager, Major Tier 1 USA Insurer

"We can process 3 times more alerts than previous systems"

Tier 1 AP Bank



CHALLENGES

- VAT Carousel Fraud was a billion euro problem for the Belgium Government
- High velocity fraud

SOLUTIONS

- SAS Fraud Framework for Government
- Detect companies with a high probability of being involved in VAT carousels
- Highly accurate models – the SAS Hybrid Approach is the ideal automated tax auditor

“Tens of billions of euros are lost every year through fraud carousels not implementing this solution in this difficult budgetary period would be almost criminal.”

Yannic Hulot, Director of the Belgian Special Tax Inspectorate

http://www.sas.com/en_us/customers/tax-fraud-belgium.html

CHALLENGES

- Detect fraud in all bank operations more efficiently
- Move across to one platform

SOLUTIONS

- SAS Fraud Framework for Banking / SAS Anti-Money Laundering
- Holistic view of fraud and financial crime
- Data integrity
- Flexibility to add new products, services and channels
- Future-proof solution

“The reduced loss ratios have translated to a real and substantial reduction in fraud loss expense for the Commonwealth Bank”

John Geurts, Executive General Manager for Group Security

http://www.sas.com/en_us/customers/commonwealth-bank-australia.html

CHALLENGES

- Replace existing solution (Adastra)
- Improve data quality
- Use advanced analytics and social network analysis

SOLUTION

- **SAS Fraud Framework for Insurance**
- Used for motor, property and life lines of business
- Able to exchange information with other insurers

“The users can browse through all of the monitored elements providing a real boost in savings and efficiency”

Maya Mašková, CAE, Anti-Fraud Co-ordinator

http://www.sas.com/en_us/customers/allianz-fraud-management.html

CHALLENGES

- Pan-African company, 34,000 employees in 38 countries
- No sophisticated internal controls in place re procurement

SOLUTION

- SAS Fraud Framework for Procurement
- Brought together data from ERP systems
- Applied business rules, anomaly detection and advanced analytics

R94m of unauthorized procurement activity discovered that is directly related to companies owned by 22 employees of the bank.

SAS Fraud & Financial Crime

OUR INVESTMENT INTO THIS AREA

- SAS launched in 2013 the new Advanced Analytics Business Unit focussed on Fraud and Financial Crime across EMEA and AP – based in London & Mumbai
- SAS has recruited over 150 years of Fraud and Financial Crime expertise in building this team
- This team works with dedicated regional Fraud and Financial crime teams
- SAS has committed over 100 people in R&D for fraud and financial crime solutions offerings
- SAS has opened a new research and development centre in Scotland which will focus on combating fraud and financial crime.



SAS[®] Forum Switzerland 2014

make connections • share ideas • be inspired

Thank you

Chris McAuley
Director – Fraud & Financial Crime, SAS

