

# Using Machine Intelligence to fight Financial Crime

Drive greater value from your investment in combating financial crime.

## Less than 1% of customers pose a financial crime risk, but how much are you spending to address this risk?

The FCA estimates the Financial Services industry spends well over £650m\* annually on direct staff costs in combating financial crime. That's before any IT investment or indirect costs.

But a large percentage of that figure is currently spent on inefficient manual investigation due to data constraints and technology challenges.

We believe more of this investment can be put to better use getting ahead of criminals.

Data science and applied machine learning can drive step-change improvements in the industry's ability to detect and manage financial crime. Data scientists and

self-learning algorithms can help firms use their data to reduce wasted effort through improved identification and triage, and to reduce financial loss through earlier and more accurate recognition of suspicious activity.

And the good news is you don't need to wait for the foundations to be perfect or to invest millions in new tools.

Mudano are experts in helping our clients solve their hardest business problems with data, and we are set up to start fast. By establishing the right people and processes, we can enable you to rapidly drive value from data and analytics solutions across your financial crime prevention landscape .

\* FCA Financial crime: analysis of firms' data, November 2018

# We will show you how data, analytics and machine learning can transform your financial crime prevention capability

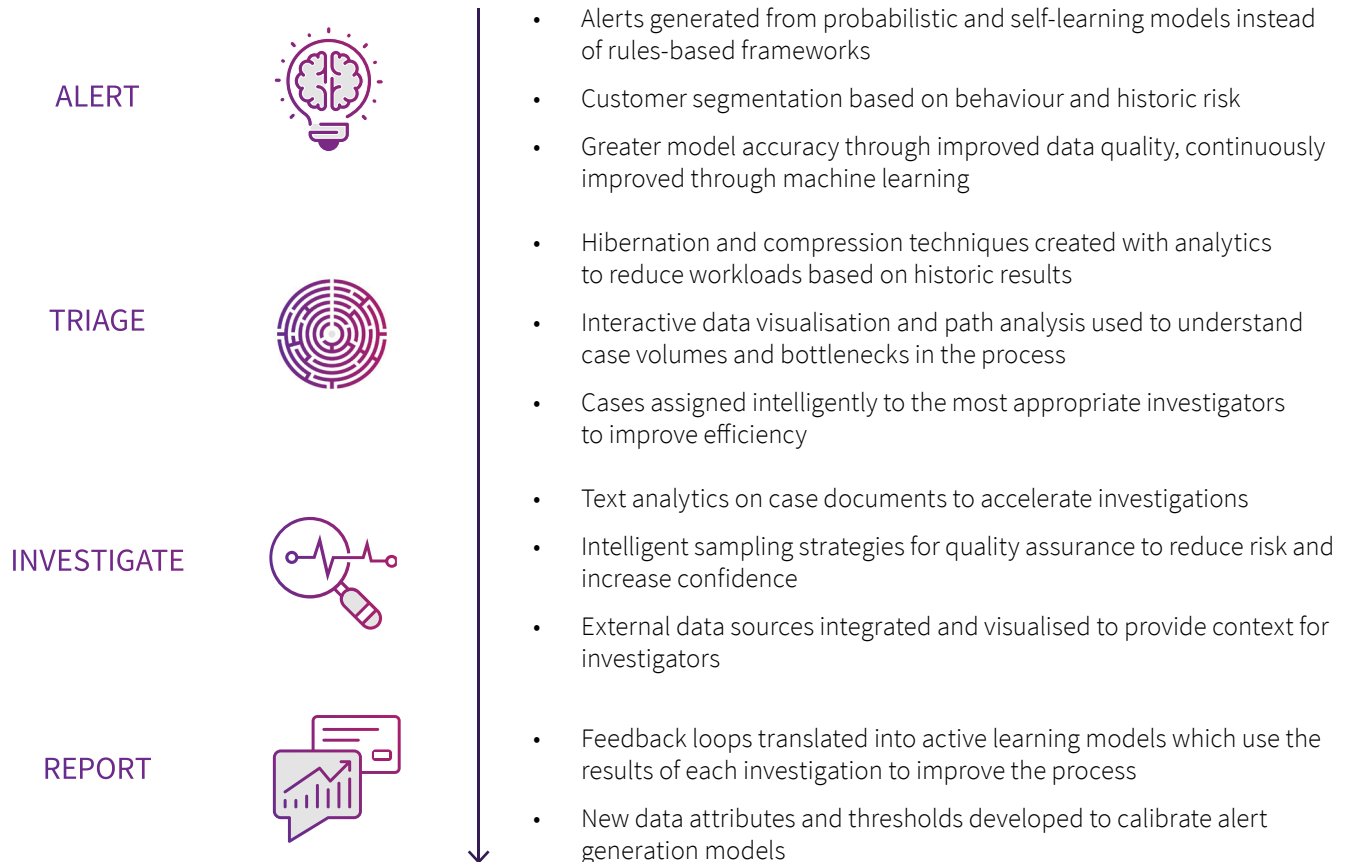
## Financial crime prevention processes are still very manual and rules-based

Despite massive investment in software solutions, most financial crime prevention processes are still based on basic, static rules and generate a lot of wasted manual effort.

Teams on the ground are often facing systemic challenges, including:

- Poor customer data quality
- Complex technology integrations
- Challenges to embed procedures
- High volumes of false positive alerts driving wasted investigations
- Increasingly complex customer behaviour
- Regulatory pressure to demonstrate quality and consistency in investigations

## Data and analytics can transform each stage of your process



# We will keep you focused on delivering value

## The investment case for financial crime analytics writes itself

We classify financial crime prevention use case by the type of value they drive. The majority fall into three main categories:

### IMPROVED IDENTIFICATION

Preventing financial crime is not looking for a needle in a haystack. It's looking for a needle pretending to be hay. Machine learning algorithms use every needle you find to adapt and give you a better chance of identifying anomalies and catching the next one.

### IMPROVED QUALITY & COMPLIANCE

From improving the quality of data available to alerting systems and investigators, to adapting to new regulations, machine learning can help reduce risk and increase confidence in your financial crime prevention systems.

### REDUCED OPERATIONAL COSTS

Banks regularly find 95% of alerts are false positives, generated from rules-based systems. Increasingly sophisticated customer behaviour is making investigations more challenging, creating unnecessary escalations. Machine learning can help reduce the workload on stretched operational teams and make more intelligent planning decisions.



## A few examples of how we've helped our clients

### IMPROVED IDENTIFICATION

#### Using machine learning to inform rules-based alerting systems:

Applying a basic decision tree model, we helped our client drive a 50% increase in the identification of credit card transaction fraud.

Using clustering techniques on customer demographic data we helped our client to increase the identification of Authorised Push Payment fraud by 100%.

### REDUCED OPERATIONAL COSTS

#### Text analysis to automate heavily manual processes:

Extracting themes from text documents was taking our client 4 days a month just to review a 20% sample. Through text analysis we reduced the process to 40 minutes to review the full data set.

### IMPROVED QUALITY & COMPLIANCE

#### Path analysis to identify root causes:

Constructing an events stream of all customer interactions and running path analysis, we enabled our client to identify unknown weaknesses in their process which were triggering issues.

# You can start with what you have. We will help you create success stories and generate momentum to enable scaling

## Where to start

You don't have to tackle every problem at once - and it doesn't need a huge implementation. Small experiments using your existing technology and data ecosystem can help demonstrate the art of the possible.

We can show you what's possible with a small team, tackling one use case and realising value in as little as 6 weeks.

Every use case you deliver can be used to demonstrate the potential value of an advanced analytics capability and create momentum to scale-up that value.

## The skills you need

Data Science isn't one discipline. The key to our approach is using small cross functional teams of data specialists.

**Data Scientist:** Deep knowledge of statistics and computer science. Develops data solutions using machine learning and other techniques with tools such as Python, R and SAS.

**Data Engineer:** Highly skilled data manipulators. Enable solutions through combining and transforming datasets and building data pipelines with tools such as Python, SQL and SAS.

**Visualisation Engineer:** Specialists in interrogating data. Reveal patterns and insights through impactful and interactive data storytelling with tools such as Power BI, Qlikview and Tableau.



## Mudano is uniquely placed to help

### We are a data company

Mudano is a team of data specialists, not auditors. From strategy and operating models through analytics to data lakes, our business is focused on helping our clients manage their data and drive value from it.

### We are experts in customer behavioural analytics

Mudano has deep experience in helping our clients understand customer behaviour. As well as data scientists, we also use behavioural scientists to design our solutions. From building customer journey data layers and dashboards through to behavioural segmentation and propensity modelling, our team use analytics and visualisation to understand typical behaviours and spot anomalies.

### We have a dedicated research team focused on industry challenges

As well as working with clients, we have a dedicated team of research data scientists working on some of the latest developments in machine learning and AI and how they can be applied to industry challenges, such as financial crime prevention.

## Get in touch

We'd love to tell you more about how we can help you transform your ability to fight financial crime with machine intelligence and how to get started.

Why not drop us a line?



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