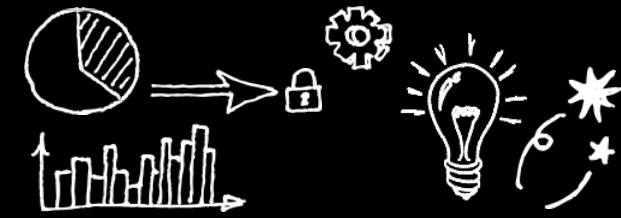


# Advanced Analytics for TM

## Multiple techniques with multiple purposes



TECHNIQUE

Business Rules



Predictive Modelling



Profile Analytics



Cognitive Analytics



Reporting



DESCRIPTION

Scenario's comprising logic rules (if ... then ...) to generate alerts for transactions with a high financial crime risk directly.

- Alert generation
- Risk score models
- Exception testing

Self learning risk classification techniques to *identify* transactions or events with a high financial crime risk in a data driven way.

- Predictive analytics to reduce false positives and find new risks
- Monitoring transaction networks

Statistical and automated comparison of current transactional behavior against *expected, common or usual behavior*.

- Monitoring against expected profiles
- Anomaly detection
- Unsupervised machine learning
- Social Network Analysis

Self learning to unearth emerging patterns that would be unknown to humans while offering more protection and a better accuracy.

- Hypothesis generation
- Real time fraud detection
- Natural Language Interaction
- New pattern recognition

Structured analysis and detailed reporting on monitoring outcomes and risks mitigated (this includes backtesting), to initiate *enhancement* actions and inform all *stakeholders*.

RESULT

Risk based approach to detect **well known** financial crime patterns.

Addition to risk based approach, to detect **complex** financial crime patterns.

Continuous monitoring for **unexpected, uncommon or unusual** behavior that could be indicative for fraud.

**Deep learning** from all forms of data, to mimic human analysis and decision making.

**Continuous insight** in monitoring effectiveness.

**Hybrid approach – Orchestrated combination of multiple techniques**

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee (“DTTL”), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as “Deloitte Global”) does not provide services to clients. Please see [www.deloitte.nl/about](http://www.deloitte.nl/about) for a more detailed description of DTTL and its member firms.

In The Netherlands the services are provided by independent subsidiaries or affiliates of Deloitte Holding B.V., an entity which is registered with the trade register in The Netherlands under number 40346342

This communication contains general information only, and none of Deloitte Touche Tohmatsu Limited, its member firms, or their related entities (collectively, the “Deloitte network”) is, by means of this communication, rendering professional advice or services. No entity in the Deloitte network shall be responsible for any loss whatsoever sustained by any person who relies on this communication.