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Financial Crime: AI, systems and process. Building trust in the digital age

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4th July 2019



| Financial crime – still rarely identified

UN: “at least **US\$1.6 trillion** is laundered through the global financial system each year”

¹ United Nations (UN) estimates that at least US\$1.6 trillion is laundered through the global financial system each year.

| Financial crime – still rarely identified

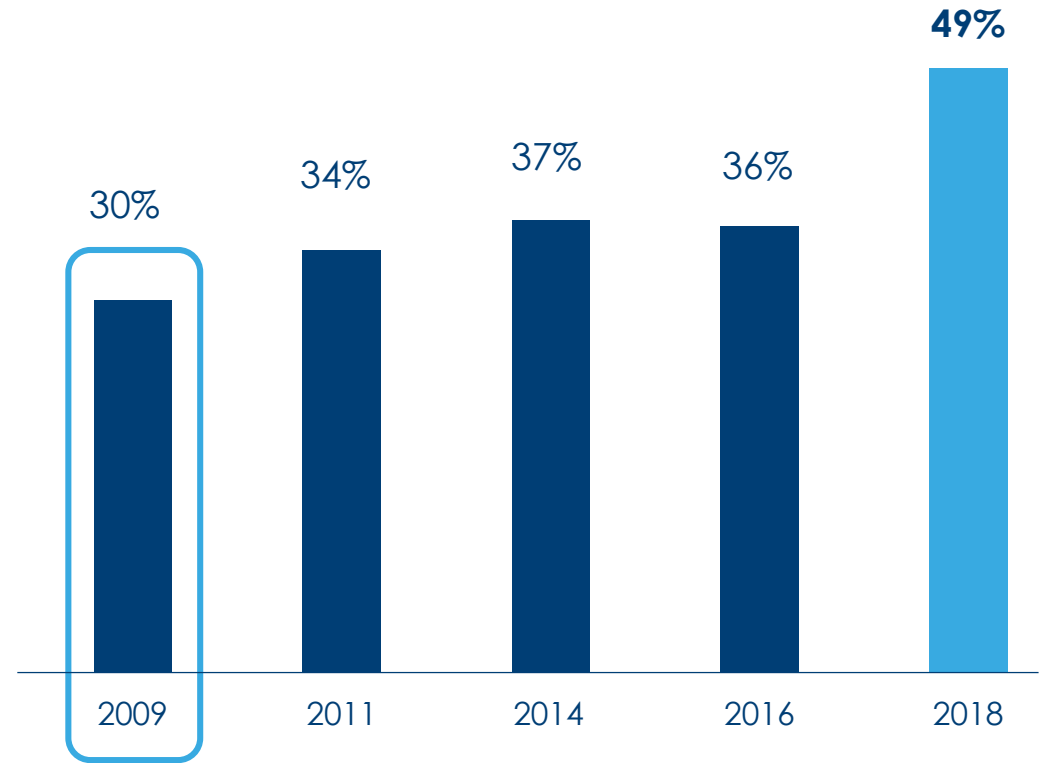
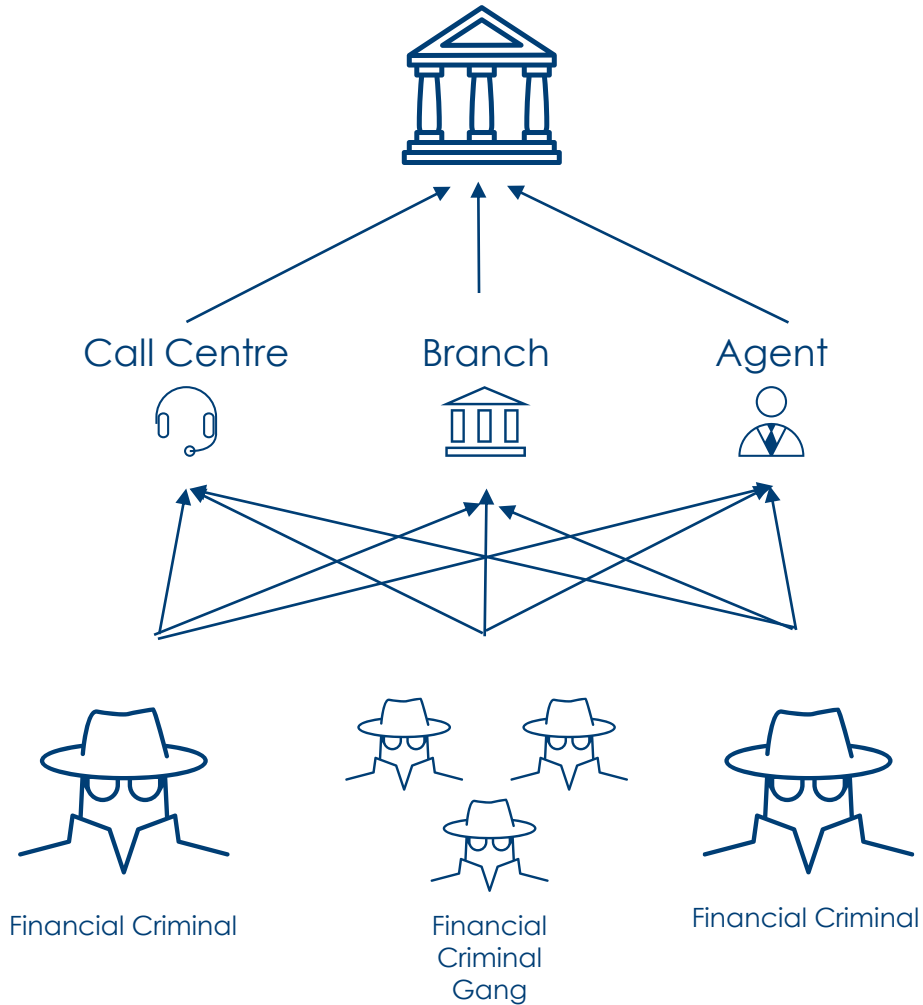
*Only 1% of money laundering
illicit flows are intercepted*

Any sort of Financial crime leads to Money laundering because the illegitimate funds must be made available and legitimized.

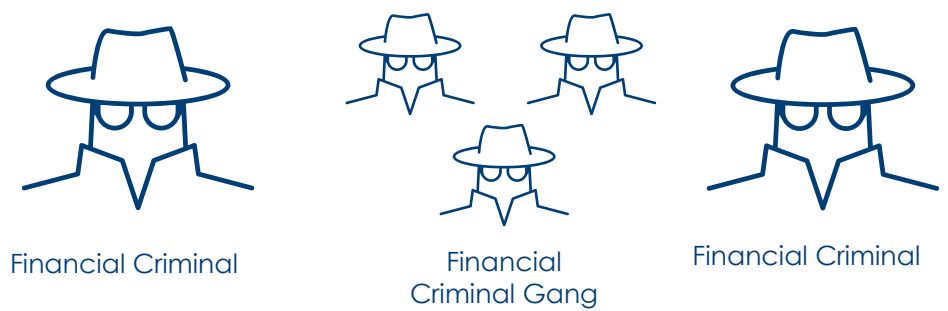
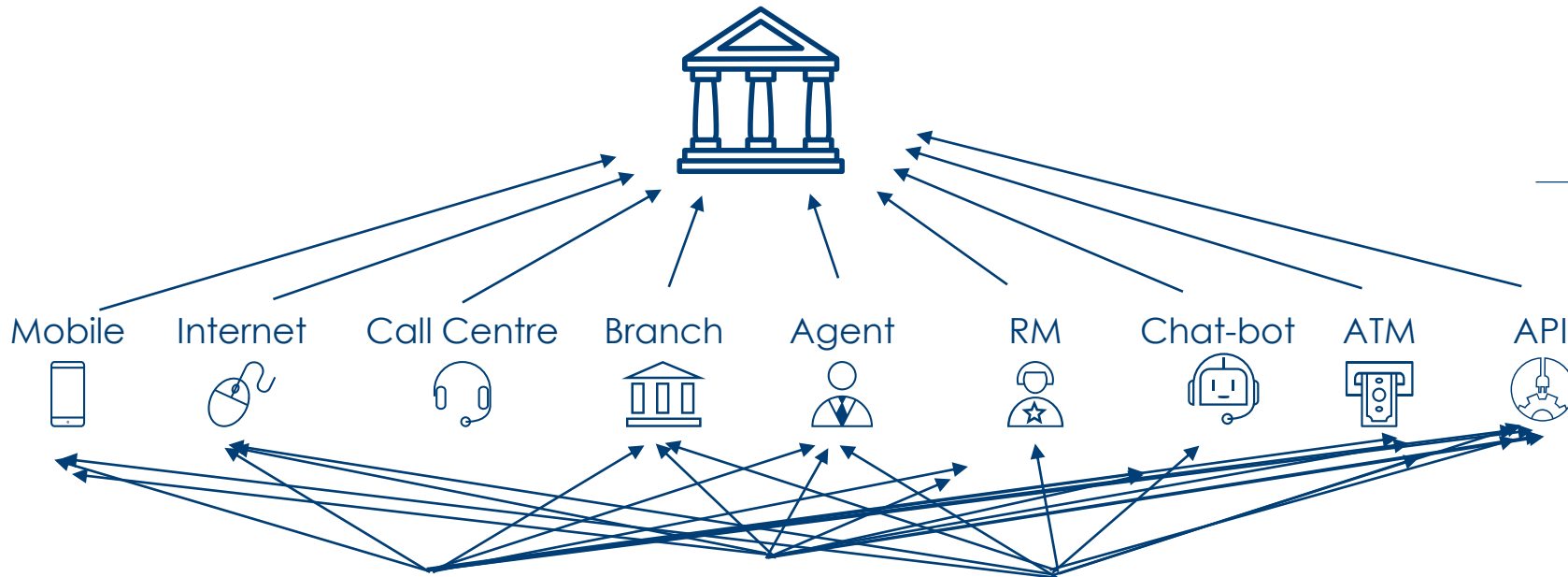
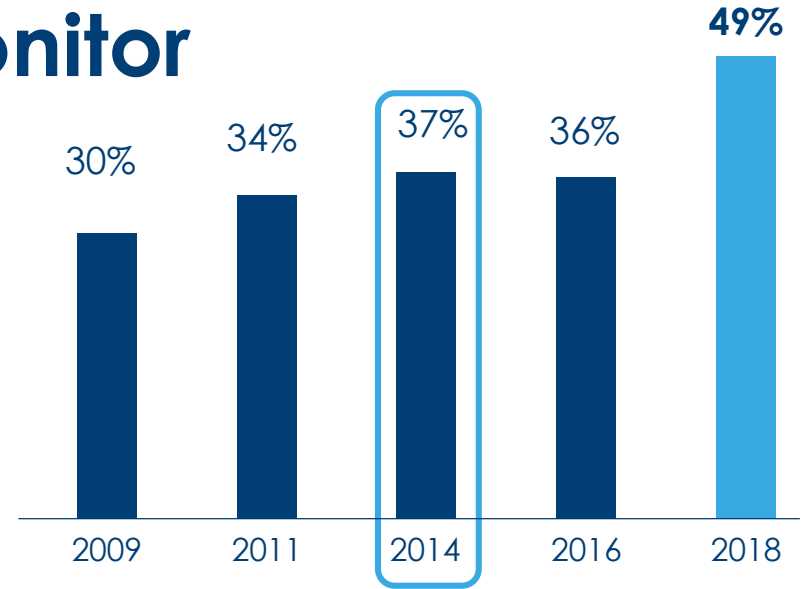
| Regulator Trust – there is still a problem

US\$321 billion fines since 2008

Before Digital – only a few channels to monitor



Since Digital – more channels to monitor



Regulator Trust – essential to enable business



- ✓ Protect against fines and penalties
- ✓ Protect reputation
- ✓ Improve Customer trust
- ✓ **Enable business**

| Regulator Trust – not for lack of trying

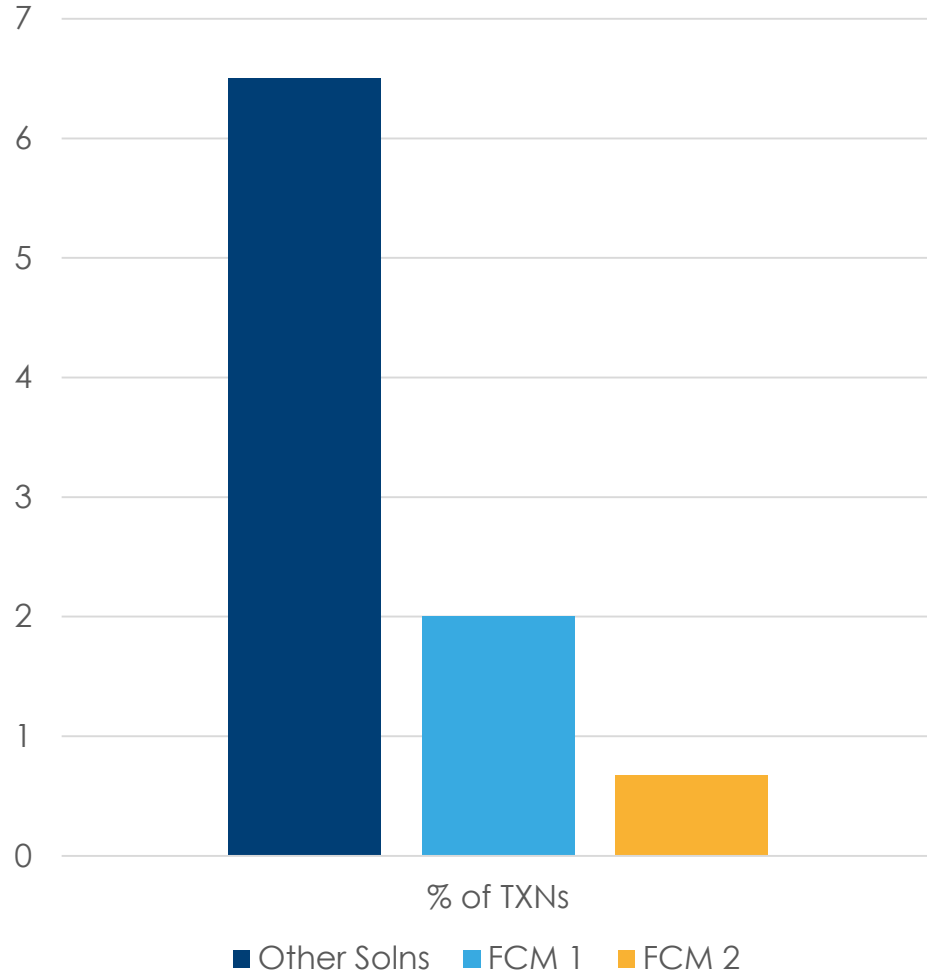
*“The global cost of regulatory compliance is currently estimated to be around **US\$80 Billion** and on course reach \$120 Billion in the next five years”*

(Thomson Reuters)

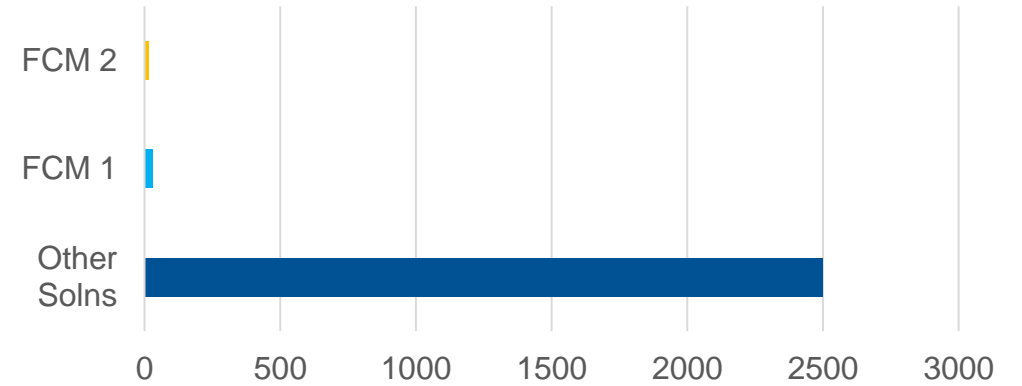


FCM Delivers Real World Efficiencies

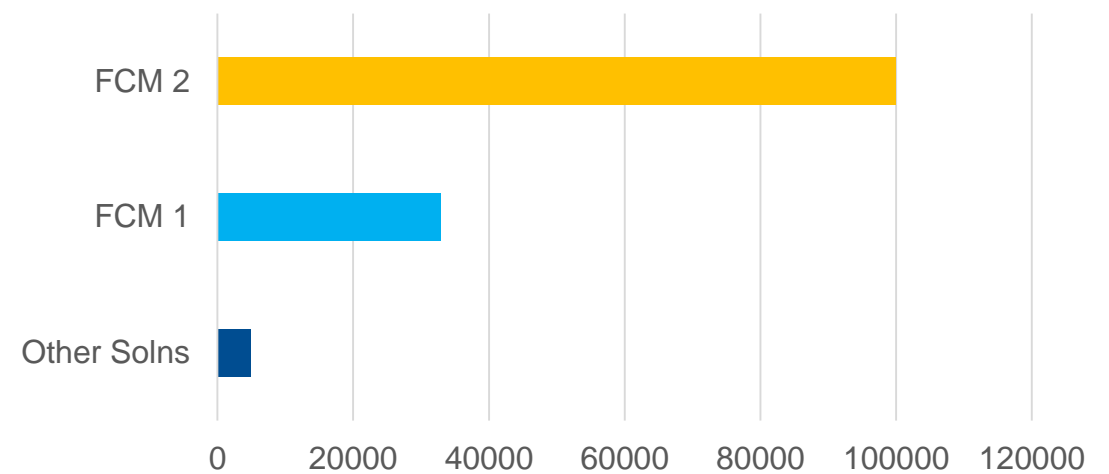
Real World False Positive Rates



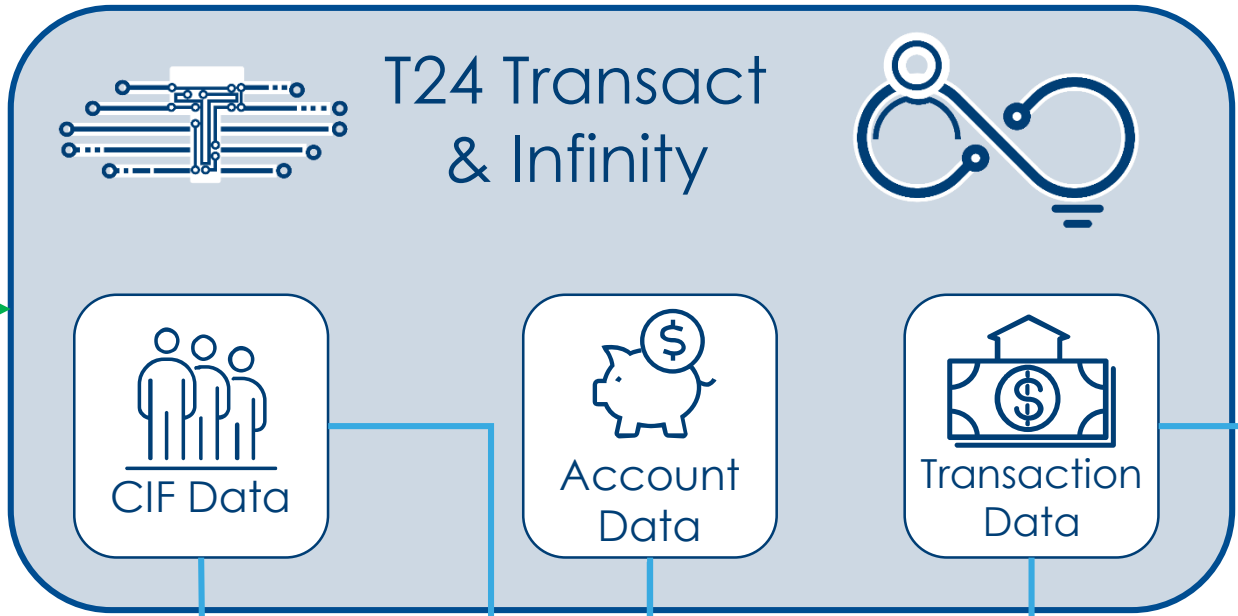
Investigators Per Million Payments



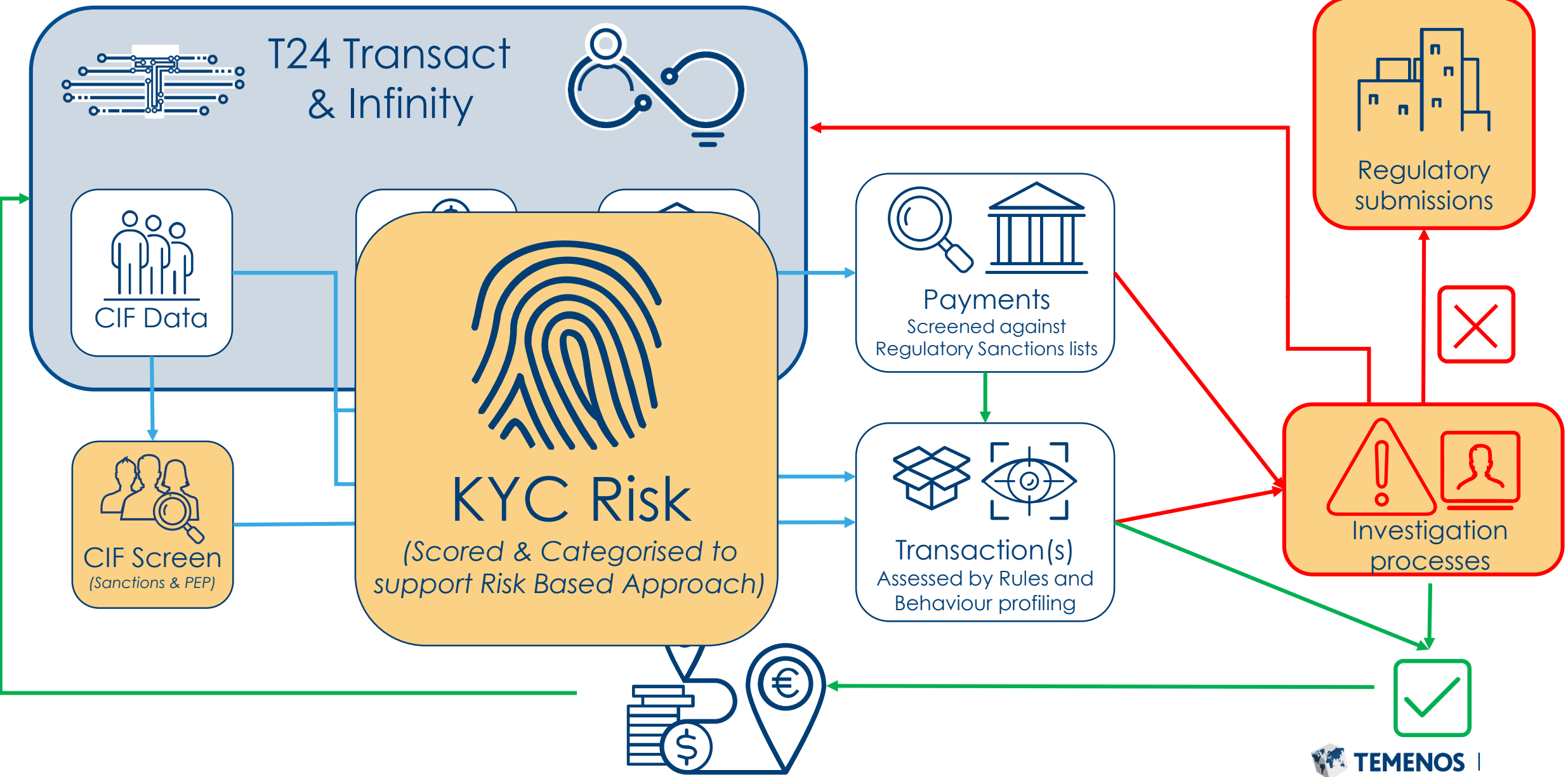
Throughput per Full Time Employee



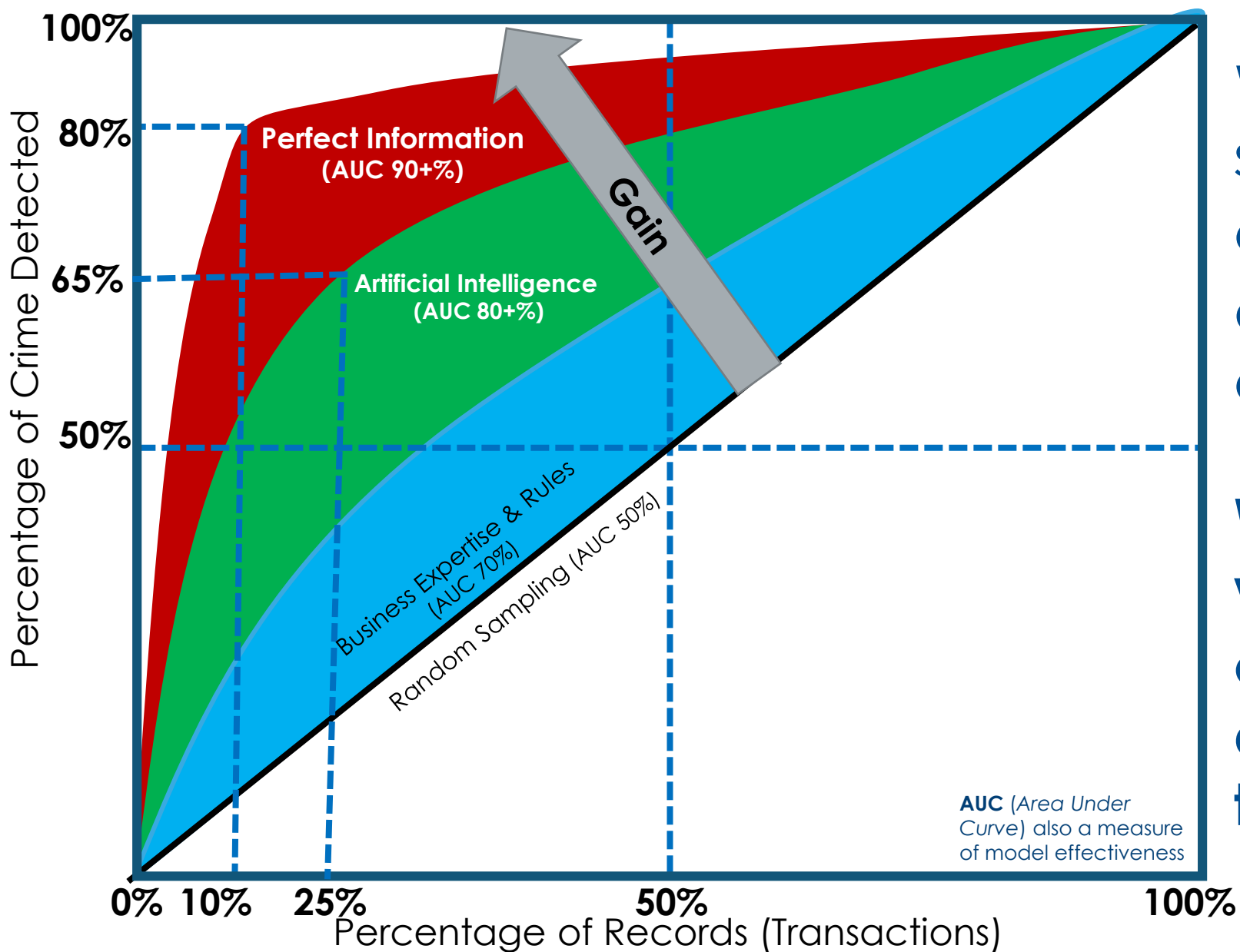
Efficiency from a Temenos Risk Based Approach



Continuous Risk Based Ongoing Due Dilligence



Artificial intelligence – less checks required to achieve greater detection

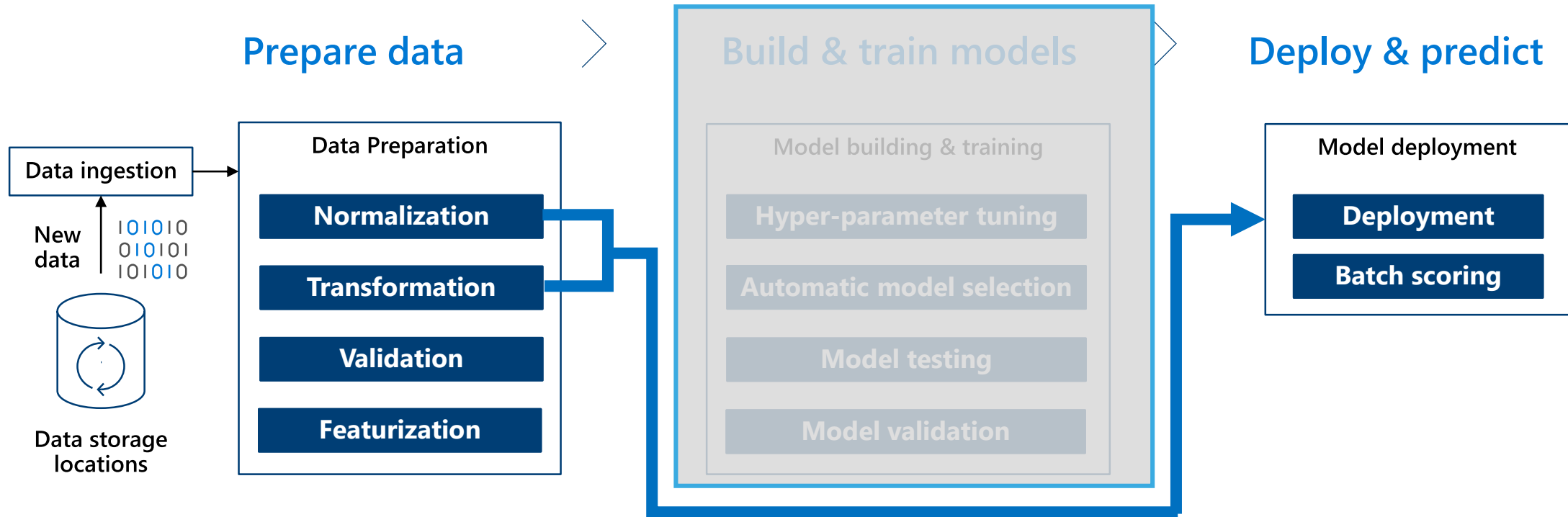


With just random sampling we need to check **50%** of the data to detect **50%** of the crime

With the AI techniques we only need to check 10% of the data to detect 80% of the crime

AUC (Area Under Curve) also a measure of model effectiveness

Incorporating AI into a Risk Based Approach



Temenos Provides an Alternative approach bypasses this effort

Customer AI Segmentation – Base Approach

A financial model, not demographic model for phase 1

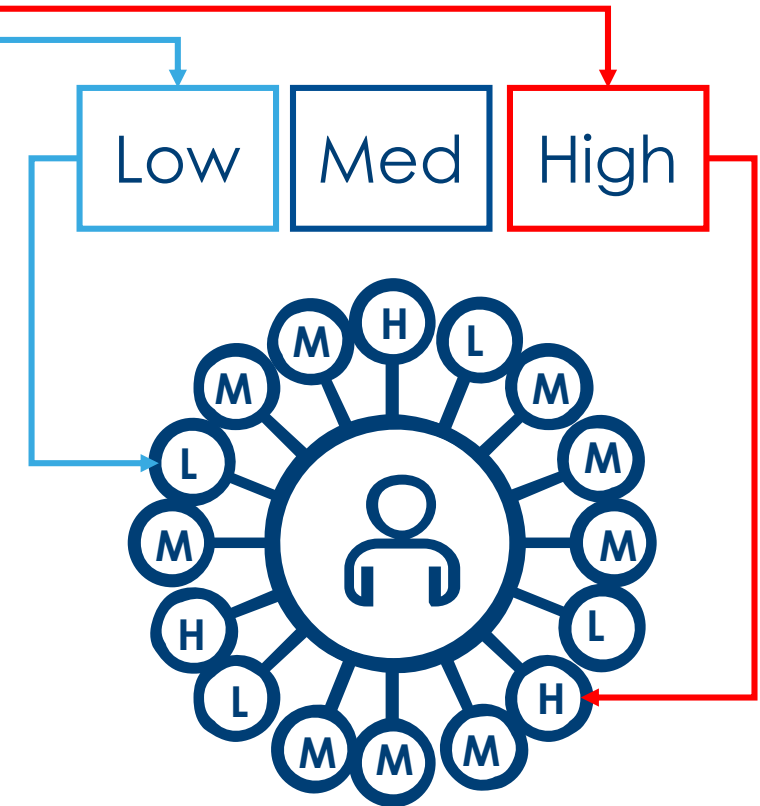
Customer Profiles used

Debit cash txns
Credit cash txns
Debit wires
Credit wires
(previous 6 months)

- Sum of Txns
- Number of Txns
- Avg Txn Amount
- Max Txn Amount

Generates 16 cluster types:

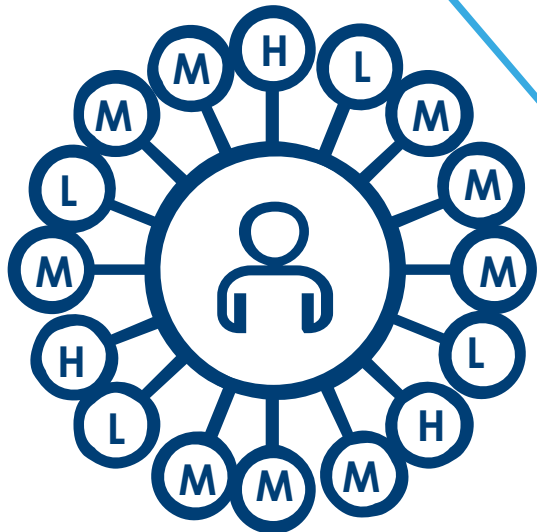
1. Debit cash Sum of amounts
2. Debit cash Number of transactions
3. Debit cash Average amount
4. Debit cash Maximum amount
5. Credit cash Sum of amounts
6. Credit cash Number of transactions
7. Credit cash Average amount
8. Credit cash Maximum amount
9. Debit wire Sum of amounts
10. Debit wire Number of transactions
11. Debit wire Average amount
12. Debit wire Maximum amount
13. Credit wire Sum of amounts
14. Credit wire Number of transactions
15. Credit wire Average amount
16. Credit wire Maximum amount



Gives the **Financial Behaviour DNA** for each customer – as customer is in 16 of the 48 possible clusters

Customer AI Segmentation – Base Approach

A financial model, not demographic model for phase 1

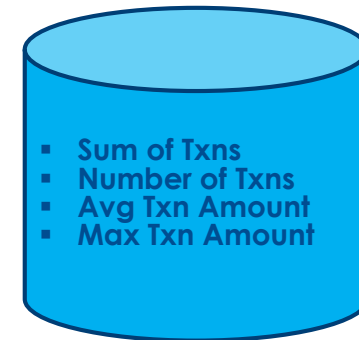


Financial Behaviour DNA for each customer – as customer is in 16 of the 48 possible clusters

2nd Pass on clustering mechanism

- Places each customer in a peer group based on their 16 FDNA's
- Number of Peer Group Clusters based on a parameterized, manageable volume of final clusters (e.g. 40)

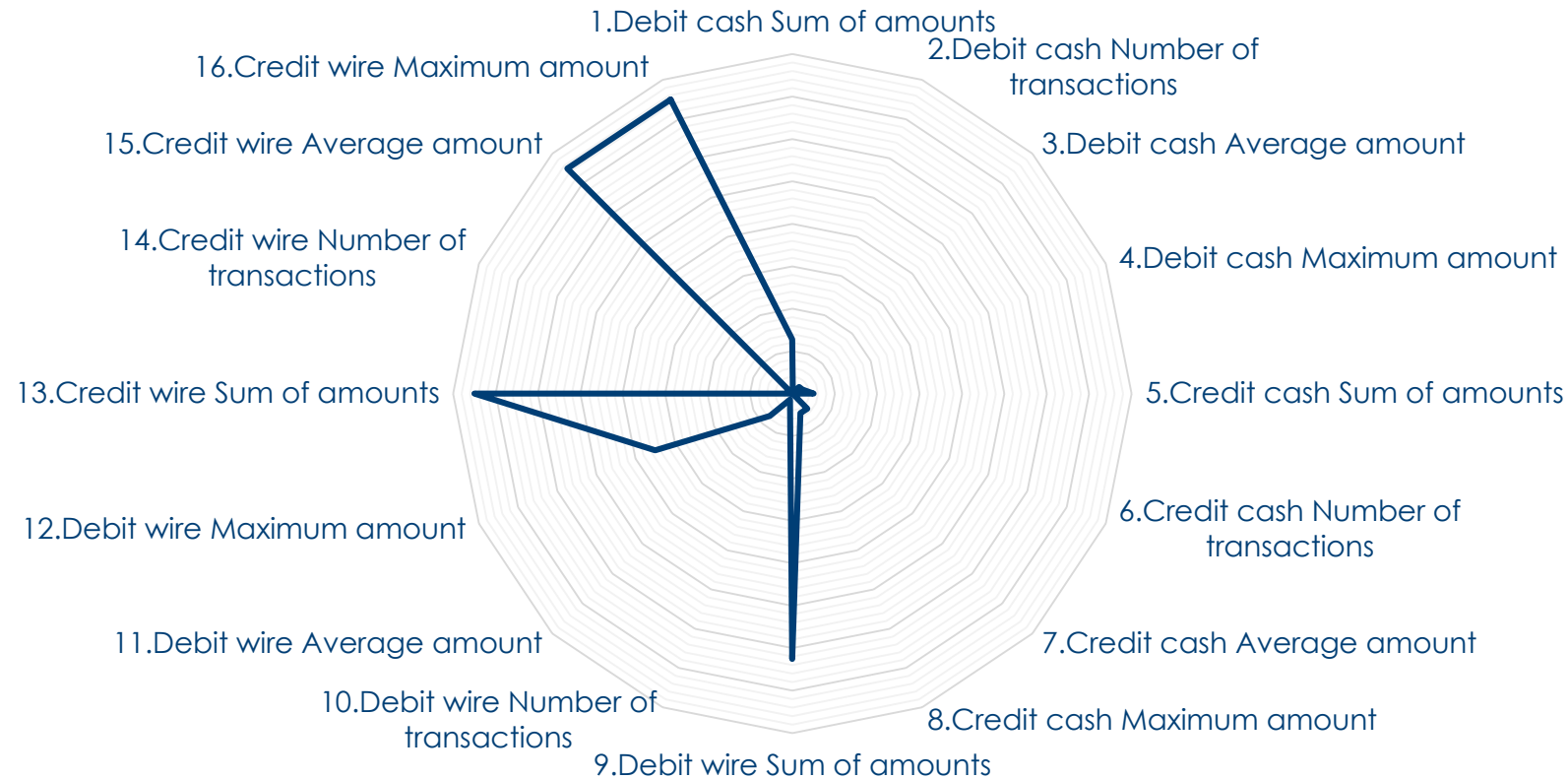
Each Final cluster is profiled as a **Peer Group Profile** (a *new additional entity*)



Real Time & Batch Profile rules may be run against Peer Group Activities

Customer AI Segmentation – Base Approach

Customer financial behaviour DNA



A unique signature for Customer Financial behaviour: a specific shape might be a sign of ML

Temenos FCM - a complete solution for a highly regulated environment



Leading Provider for Financial Crime Mitigation



- Leading provider/highest scoring for overall execution



- “Leader” in KYC (including Watch-list screening)
- “Major player” in AML



- Overall, Temenos FCM is positioned as a leader.
- Higher technical and strategic attributes than other major players
- Higher strategic attributes than other major players

Find out why today!

Thank You

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