

# REDEFINE YOUR COMPLIANCE WITH H3M'S ADVANCED AI SOLUTIONS

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2021

BANKING



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# H3M.IO

AI IN COMPLIANCE

## CASE STUDIES IN BANKING

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ASSOCIATION CANADIENNE DE LA TECHNOLOGIE RÉGLEMENTAIRE

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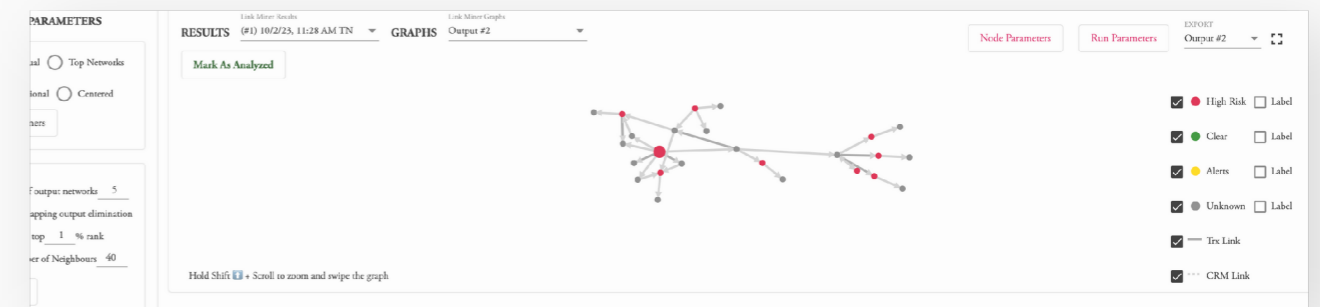
# İşbank, together with H3M, deploys the first of its kind AI-based suspicious network analysis solution for Anti-Money-Laundering.

H3M, the leading provider of novel AI-based AML solutions, completed its largest deployment with İşbank. The implementation resulted in the effective detection of complex suspicious networks of multiple magnitudes and typologies.

"Neither legacy rule-based systems nor typical data science applications can detect suspicious networks, where members of the network are not suspicious when investigated independently. **Providing these networks in an easy-to-investigate manner to the analysts was also a challenge on top of the detection precision.**", said Mr. Ertuğrul Koçak, Financial Crimes Unit Manager. Mr. Gökhanalp Arslan, Head of Analytic Applications, also from İşbank added: **"Even though there are many tools in the compliance domain claiming network analysis, our IT teams' collective success with H3M is twofold. First, detecting suspicious sub-graphs in a 20 million node, and 1 billion edge network in less than an hour; second, detecting the whole suspicious graph with minimum required manual work, enabled by artificial intelligence."**



The first-ever application of active learning technology in graph networks has been implemented with one of the largest banks in Turkey, İşbank with over 20 million customers, and billions of transactions in between. The implementation enabled the detection of money laundering networks, which are undetectable by the investigation of single entities.

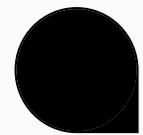


"Person and company-based features and anomaly detection based on those prominent features are common in AI applications in the compliance domain. However, what the features of a suspicious network are, based on structural forms, CRM data distribution, and transaction characteristics is an entirely new question to be asked.", explained Tolga Kurt Ph.D., Managing Partner, H3M. "On the other hand, novel H3M algorithms provided swift detection techniques, and utilizing active learning enabled us to define new features together with the Compliance and IT teams of İşbank.

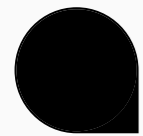
**The AI comes into the picture in isolating the suspicious flow of laundered money and money-laundering entities automatically from the otherwise undecipherable complex network",** added Utku G. Ketenci Ph.D., Director of Data Science and AI, H3M.



# Akbank and H3M.IO raise the bar in Artificial Intelligence-based Compliance risk management with record precision levels in suspicious activity detection.



The first-ever large-scale application of Active Learning technology with over 16.5 million customers, and over 10 billion transaction data, significantly reduced false positives and enabled the detection of compliance risks, undetectable by legacy scenario-based tools.



Many banks around the globe suffer from an ever-increasing number of alerts and high false-positive ratios; at the same time, the UN reports that less than 2% of suspicious activity can be detected. "As Akbank, we are aiming to be one of the early-adaptors of AI in the compliance domain globally, and partnering with H3M.IO was a part of this key strategy. We believe that the best performance is always achieved where the domain knowledge of the experts is combined with the capabilities of IT systems. **H3M.IO KROTON software platform provides us with a platform to enhance our existing expertise to a new level with AI technologies.**", said Mr. Selim Önal, Head of Compliance.



**89%** REDUCTION IN WORKLOAD BY REDUCING FALSE POSITIVES



"The current AI applications in compliance suffer from the inadequate training datasets. Analysts can only investigate a handful of alerts from millions of daily transactions, 90% of which are clear, and only 10% are suspect. This is neither sufficient nor adequate to build effective data science models.", explained Tolga Kurt Ph.D., Managing Partner, H3M.IO.



The uniqueness of our application is the creative implementation of Active Learning (AL) technology. AL is about AI asking questions to learn, instead of memorizing and mimicking already labelled sample space. Every day the system investigates 10s of millions of transactions and generates questions for the analysts. AL enables a much more valuable sampling space and insights for the models, therefore increasing the precision of the models."

## SUSPICIOUS ACTIVITY DETECTION ACCURACY

