

FINCRIMETECH50

Profiles of the **FINCRIMETECH50**, the world's leading tech companies fighting money laundering, fraud & financial crime that every industry leader needs to know about in 2024





COMPANY RESEARCH PROFILE



Founded 2007
 Paris, France
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Employees 101-250
 Regions of operation: Europe, Middle East, Africa, USA

Product Name: Reis™ Risk and Compliance Suite

KEY EMPLOYEES:



Subsectors: **Onboarding, Transaction Monitoring, Risk Assessment, Anti Money Laundering, Counter Terrorist Financing, PEP & Sanctions Screening, Transaction screening, KYC, Reporting**

OFFERING

Vneuron Risk & Compliance stands as a trailblazer in RegTech innovation, presenting a state-of-the-art cloud-based Anti-Money Laundering (AML) solution intricately crafted to meet the complex compliance demands of financial institutions. With a decade of steadfast dedication to pioneering technology, our flagship product, the Reis™ Risk and Compliance Suite, consistently delivers outstanding results.

High customization capabilities (No-Code / Low-Code): High-End KYC form designer No-code adaptable risk entity Customizable workflow system Customizable dashboards Customizable reports Customizable Analyst interface Customizable AML rules

Robust workflow system: Adaptable workflow system to different organizational structures Embedded workflow designer Smart case management system Workload-based automatic case routing Centralized process

Best-in-class technology: Advanced name screening Pre-trained algorithms for the detection of known money laundering scenarios Statistical modeling Historical AML data to fine-tune filtering rules Uncovering criminal behavior similar to established patterns with lookalike modeling Fuzzy matching All-in-one solution

PROBLEM BEING SOLVED

Vneuron Risk and Compliance is dedicated to tackling the intricate compliance challenges that frequently afflict financial institutions. These challenges span a broad spectrum of complex issues that demand sophisticated solutions:

- 1. Comprehensive Modernity vs. Legacy Dilemma:** Financial institutions grapple with an enduring predicament – the choice between outdated yet comprehensive compliance solutions and modern ones laden with limitations. Reis™ Risk and Compliance Suite (RCS) transforms this dilemma into irrelevance.
- 2. Complex Regulatory Checks and Investigation Overload:** The multifaceted layers of regulatory checks often overwhelm financial institutions, making investigative tasks laborious and expensive. Reis™ RCS addresses this issue with unparalleled automation capabilities, ranging from swift digital customer onboarding to real-time transaction monitoring. This automation not only expedites customer acquisition but also results in significant cost savings for compliance operations.
- 3. Mitigating False Positives:** False positives pose a persistent challenge in the financial sector, but Reis™ RCS takes a comprehensive approach to address this issue. The platform significantly reduces false positives by over 80% through the integration of sophisticated Natural Language Processing (NLP) systems and analytical tools.

TECHNOLOGY

Reis™ RCS epitomizes technological advancement in the realm of financial security and compliance, integrating cutting-edge technologies to forge a resilient solution. Operating within a cloud-based architecture, our platform is characterized by its inherent flexibility and scalability, empowering users with remote accessibility.

At the heart of our technological framework lies a sophisticated fusion of Artificial Intelligence (AI) and Machine Learning (ML). These cornerstones propel our transaction monitoring modules, harmonizing behavioral monitoring with rule-based Anti-Money Laundering (AML) protocols. This symbiotic amalgamation not only achieves a substantial reduction in false positives but also optimizes alert management, fostering heightened accuracy in threat detection and operational efficiency.

Within the KYC module, Reis™ leverages advanced Natural Language Processing (NLP) algorithms to execute comprehensive name screening, encompassing even low-resource languages. This avant-garde approach not only mitigates false positives but also confronts the challenge of namesakes during customer onboarding, elevating data accuracy and integrity. Moreover, Reis™ RCS boasts seamless integration capabilities with external systems, facilitated by well-documented Application Programming Interfaces (APIs) and software development frameworks.

 OFFERING (CONT.)

Scalability: Successful stress testing Minimal downtime Possibility to install on-premise or in the cloud, on one server or many Balance loads across many nodes when handling large transaction volumes Suitable for Different structures, jurisdictions, and sizes

One Platform for All AML Compliance

Operations: Our solution provides a centralized platform that streamlines all AML compliance operations, from KYC processes and risk management to workflow automation and reporting, simplifying processes and enhancing oversight across the board.

 PROBLEM BEING SOLVED (CONT.)**4. Dynamic Compliance Evolution:**

The ever-evolving regulatory landscape presents an ongoing challenge for financial institutions. Reis™ RCS remains at the forefront of adaptation, offering real-time updates and configurable features to seamlessly accommodate changing compliance requirements.

5. Simplifying Customization:

Many financial institutions struggle with the complexity of customizing compliance solutions due to high-code requirements, slowing adaptation to their specific needs. Vneuron eliminates this barrier by offering extensive customization capabilities through intuitive no-code features. This empowers institutions to tailor the solution precisely to their requirements ensuring seamless integration and rapid deployment.

 TECHNOLOGY (CONT.)

In addition to its technological prowess, Reis™ RCS harnesses collaboration efforts to facilitate seamless cooperation and data exchange among stakeholders. Leveraging cutting-edge BPM protocols and collaborative features, our platform fosters synergy between compliance teams, enabling real-time collaboration and information sharing. Whether it's cross-departmental collaboration within an organization or communication with external partners and regulators, Reis™ RCS provides a secure and efficient environment for collaborative compliance efforts.

 PRODUCT DESCRIPTION

As compliance challenges undergo dynamic evolution and fraud adopts increasingly intricate forms, the automation of Anti-Money Laundering (AML) processes has transitioned from a luxury exclusive to large institutions to an imperative for all. The Reis™ Risk and Compliance Suite has emerged as a stalwart solution for global financial institutions, providing an extensive AML technology meticulously engineered to meet rigorous regulatory requirements.

The Reis™ RCS suite comprises distinct modules, each precision-engineered for specific facets of compliance:

Reis™ KYC: This module optimizes customer onboarding by seamlessly integrating sanctions screening and adopting a risk-based approach. It ensures that financial institutions can robustly verify customer identities and assess associated risks with confidence.

Reis™ AML: Leveraging advanced segmentation and artificial intelligence, this module delivers sophisticated transaction monitoring capabilities. It excels in identifying suspicious and unusual behaviors, thereby augmenting the institution's capacity to counteract money laundering activities.

Reis™ Transaction Filtering: Offering comprehensive payment screening technology capable of filtering domestic, cross-border, and remittance payments, this module ensures compliance with screening requirements across all payment types, mitigating the risk of illicit financial flows.

Reduce False Positives with Reis™ RCS: Utilizing descriptive statistics and state-of-the-art name screening technologies, this module achieves an impressive 80% reduction in false positives compared to legacy systems. Case Management, Collaboration, and Workflows:

The platform integrates robust case management capabilities, facilitating centralized investigations and streamlining the process of generating suspicious activity reports (SARs). Automation of data entry and communication between compliance team members is achieved through an intuitive and customizable drag-and-drop workflow system.

Flexibility and Ease of Use: Reis™ technologies prioritize user-friendliness, offering end-to-end configuration without necessitating development efforts for full dashboard and workflow customizations.

Best of Breed: As an award-winning solution, Reis™ presents configurable architectures and frameworks for seamless integration with any system, including legacy ones. This ensures optimal utilization of time and resources in compliance operations.

 TRACTION/GROWTH**Mahmoud Mhiri, Executive Partner**

Mahmoud, a distinguished CEO and prominent expert in Anti-Money Laundering (AML) technologies, brings over 15 years of hands-on experience as an Executive Partner at Vneuron Risk & Compliance. His innovative leadership has delivered highly effective AML solutions to financial institutions across Europe, Africa, The Middle East, and the USA, solidifying his reputation as a trailblazer in the industry. Mahmoud's unwavering dedication to simplifying and enhancing the compliance process, coupled with his commitment to upholding the highest standards of quality and security, has fueled unprecedented global growth for Vneuron under his astute leadership.

 TRACTION/GROWTH

- Vneuron has garnered notable success, named KYC Category leader by Chartis in the RiskTech Quadrant for KYC Solutions. They were also recognized as the best anti-money laundering solution provider in the Water Rankings 2023. This year Vneuron was also named Vertical sector flexibility category winner by Chartis and made it to the Regtech100 most innovative Regtech companies report.
- With 200+ customers in renowned financial institutions across Europe, Africa, and the Middle East, Their Reis™ RCS platform, boasts over 40,000 daily users and diligently screens millions of customers and processes billions of transactions. Strategic partnerships with leading data providers enabled seamless data source selection without integration issues, while collaborations with regulatory bodies ensured adherence to evolving compliance standards and best practices.

Building a Next-Gen Name Screening Engine in 2024

By Ghassen Hamrouni, Executive Partner at Vneuron



It's been quite a journey rewriting Reis™ RCS's screening engine from the ground up and shipping it successfully to our customers. The basic idea was to incorporate new ideas and recent technologies into our existing search engine, but the changes were so radical that we decided it was better to rewrite it than to try to accommodate seemingly incompatible changes.

A Data-Driven Approach

Before embarking on building the next-gen screening engine, we enhanced and greatly expanded our testing suites. For each iteration, we closely monitored the precision, and recall, along with other interesting metrics for search engine evaluation. Without this framework, we couldn't be confident enough to try radically new ideas and methods.

What Makes Screening Special?

Financial Institutions are subject to regulatory obligations to detect potentially sanctioned individuals. This obligation goes beyond best-efforts; it mandates a 100% recall rate, meaning every sanctioned individual or entity must be identified. This is a critical difference between screening

engines and standard search engines or record linkage systems.



"While search engines balance precision and recall to provide relevant results, record linkage focuses on matching related records, screening engines are designed to detect all potential matches, minimizing false negatives."

Why Not Use a Standard Off-the-Shelf Search Engine?

Standard search engines like Elasticsearch are easy to set up, providing a flexible plugin system to extend functionalities. However, they are not designed for name search, introducing limitations. One key drawback is the lack of an intuitive scoring system for evaluating matches. They rely on relative scoring, making it difficult to consistently compare results across searches.

Another feature is vector search, which uses word embeddings to find semantically related keywords without a synonyms database. This is valuable for traditional search engines, but screening engines address a different problem. Screening engines are designed to identify potential matches based on precise criteria, ensuring comprehensive detection, particularly in regulatory compliance and risk management contexts.

Making a Next-Gen Screening Engine

The architecture of Reis™'s search engines is carefully designed to identify organizations and individual names with precision and accuracy. This specialized design ensures that financial institutions can reliably detect potential risks and maintain regulatory compliance. The search engine's process consists of three distinct phases:

1. **Query Expansion / Query Reduction:** Reis™ takes the

initial query and expands it to include name aliases and other relevant terms that might describe the targeted organizations or individuals. This step ensures that the search covers a broad spectrum of possible references, considering the region to select adequate aliases. Then, the engine performs query reduction, narrowing down the query by eliminating less relevant terms and focusing on those most likely to yield accurate results.

2. **High Recall Search:** The engine conducts a comprehensive search using the expanded and reduced query. This search aims to retrieve all potentially relevant results, even if some of them may not be exact matches.
3. **Result Scoring:** The engine evaluates the search results to determine their relevance. High-precision scoring algorithms rank the results based on factors such as exactness of match, context, and frequency of occurrence to prioritize the most likely matches.

Empowering Screening with AI



“AI and other machine learning technologies can improve the performance and effectiveness of the system. One area that has been successful is generating automated comments and explanations for search results, as well as expanding and reformulating queries.”

We evaluated Mixtral 8x22B, an open model fluent in English, French, Italian, German, and Spanish, and capable of understanding more languages according to our benchmarks. Open models can run locally and are suited for scenarios where personal data cannot be sent to a third party.

Enhancing AML Screening with LLMs for Query Expansion

Leveraging Large Language Models (LLMs) for query expansion significantly enhances search effectiveness. By using predefined templates, the model can enrich user queries to cover a broader scope while maintaining precision, crucial for complying with AML regulations. LLMs interpret the context and nuances of queries, enabling expansions that incorporate synonyms and related terminology, such as expanding “sanctions” to include “economic penalties.”

User-Friendly Summarization and Explanations for Matches

In our pursuit of creating a cutting-edge screening engine, user experience was paramount.

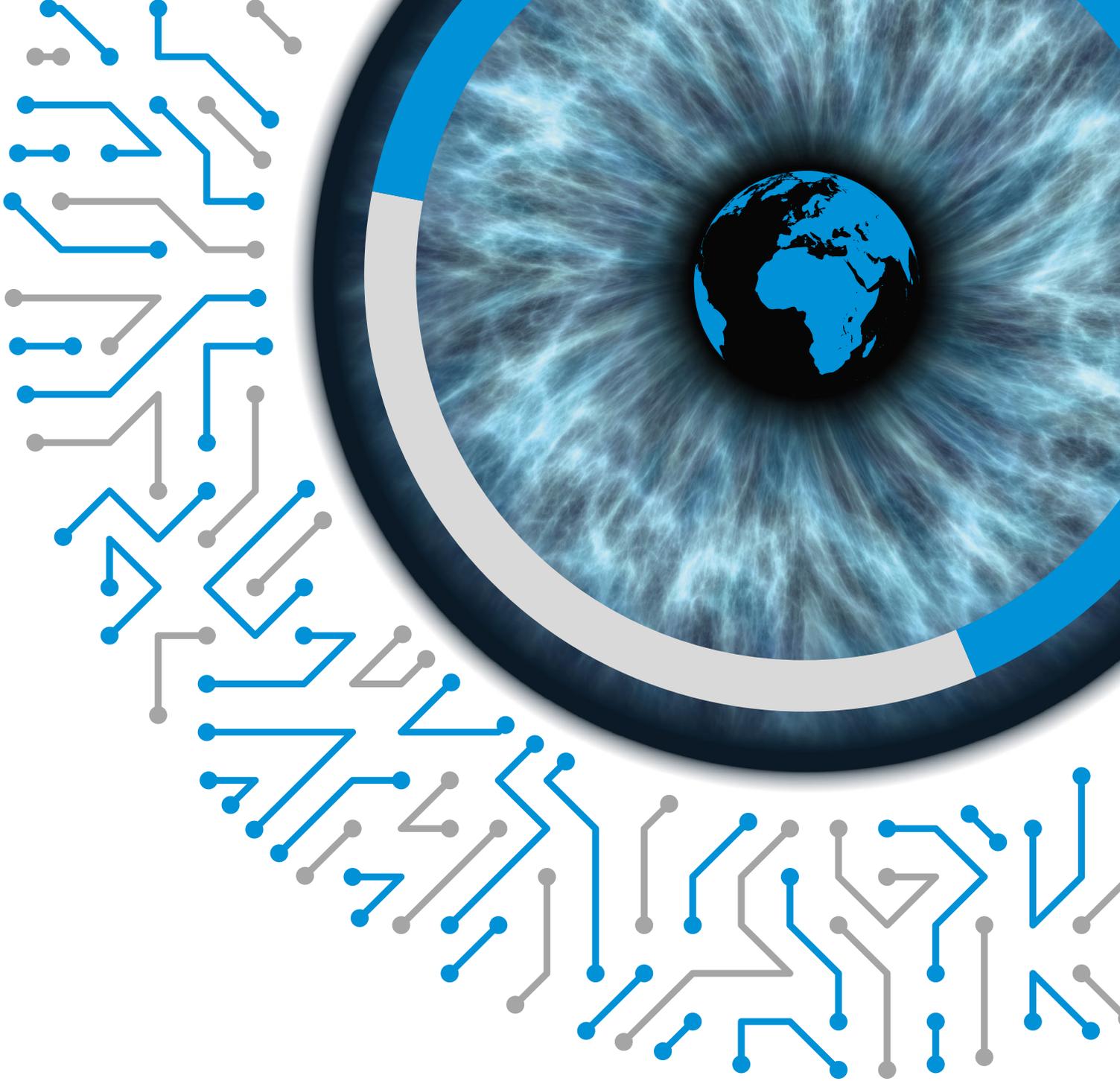


“We integrated features to ensure our system is not only robust in compliance and accuracy but also intuitive.”

One standout feature is the incorporation of user-friendly summarizations and explanations for matches. This capability uses Large Language Models (LLMs) to generate natural language explanations. Each match includes a concise summary that highlights critical aspects, aiding users in swiftly understanding the significance of each result.

These explanations prioritize clarity and relevance, reducing cognitive load and empowering users to make informed decisions efficiently. By providing digestible information, our screening engine promotes user confidence and streamlines decision-making within financial institutions.

Additionally, the system’s interface is designed for usability, presenting information in a structured, accessible manner ●



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