

GUIDE



AI IN ACTION

Practical applications for strengthening FinCrime operational efficiency in insurance

A practical guide to how predictive and agentic AI supports established financial crime controls, improving operational efficiency, effective outcomes and supporting more informed compliance decisions across the insurance lifecycle.

Introduction

Financial crime risk in insurance is becoming increasingly complex. Unlike banking, where anti-money laundering (AML) controls primarily focus on customer onboarding and transaction activity, insurers must manage risk across a much broader and longer-term ecosystem. Complex entities and relationships, premium payments, policy servicing, beneficiary changes, claims, payouts, brokers, intermediaries and third-parties all introduce financial crime exposure.

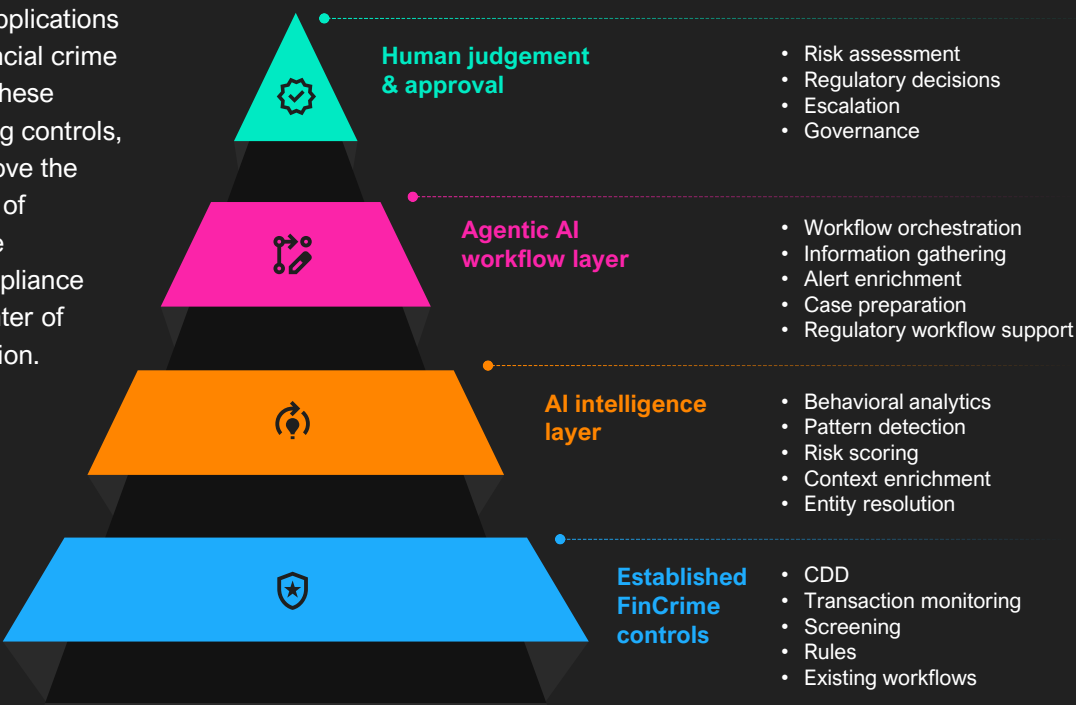
At the same time, regulatory expectations are placing greater emphasis on the effectiveness, proportionality and governance of financial crime controls. Insurance compliance teams must demonstrate that risks are identified and investigated appropriately, decisions are supported by clear evidence, and resources are focused on the areas of greatest exposure, all while managing growing alert volumes, fragmented information, manual investigation processes and continued pressure to improve operational efficiency.

Established rules, screening engines and monitoring controls remain the core of insurance financial crime programs. However, they can generate significant volumes of information for compliance teams to review and may be less effective at identifying unusual

behaviors, emerging patterns or previously unknown risks. Their effectiveness can also be constrained by disparate data, inconsistent customer records and limited investigative context.

Predictive AI and Agentic AI provide a layer of intelligence and operational support. Predictive AI helps identify behavioral patterns, statistical outliers and contextual information that can improve detections, alert prioritization and customer risk assessment. Agentic AI extends these capabilities by orchestrating workflows, gathering relevant information from approved sources, enriching alerts with contextual intelligence and preparing structured case materials for investigator review. Its value lies not in replacing established controls, but in making financial crime operations more effective, helping investigators prioritize risk more accurately, assess cases more consistently and make better-informed compliance decisions. Organizations can adopt these capabilities incrementally, embedding AI where it delivers measurable operational value while maintaining governance, human oversight and regulatory accountability.

This guide explores practical applications of AI across the insurance financial crime lifecycle. It demonstrates how these technologies strengthen existing controls, reduce manual effort and improve the quality, speed and consistency of financial crime operations while ensuring that experienced compliance professionals remain at the center of every material regulatory decision.



Customer and policy risk intelligence

01

Insurance customer relationships often span many years, with risk changing as customer behavior, policy structures, beneficiaries and third-party relationships evolve. AI can strengthen established controls by identifying unusual patterns, improving customer context and reducing the manual effort required to assess changing risk.

USE CASE 1: Continuous customer risk monitoring

Enhance existing customer due diligence by continuously assessing customer risk using behavioral, transactional and policy-related intelligence across the customer lifecycle.

Why it matters

- Risk can change after onboarding as customer behavior, ownership and relationships evolve.
- Insurance policies involve multiple parties whose roles may change over time.
- Compliance teams need reliable context to determine when customer risk should be reassessed.

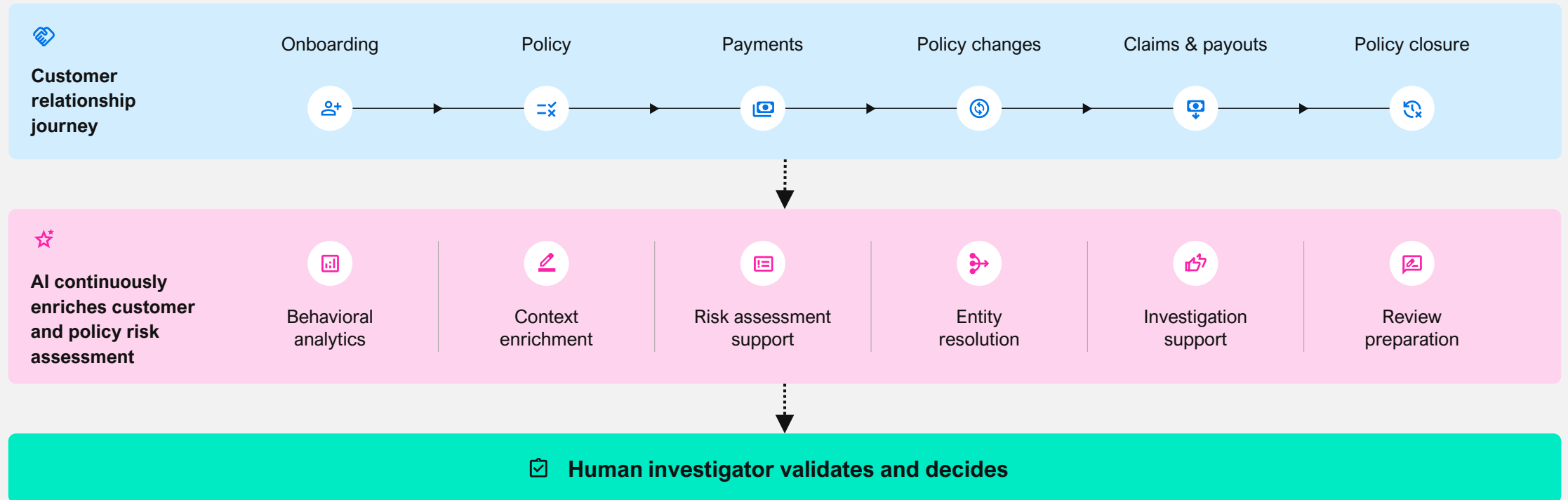
How AI and Agentic AI enable it

- Identify unusual behavioral patterns and statistical outliers across customer and policy information.
- Enrich the customer risk assessment with relevant customer, policy and relationship context.
- Use Agentic AI to gather approved information and prepare structured review summaries.

Business outcomes

- More informed and consistent customer risk assessments.
- Less manual information gathering.
- Stronger ongoing due diligence.

AI-supported customer risk assessment throughout the insurance lifecycle



AI can help identify

- Changes in customer behavior
- Unusual premium payment patterns
- Beneficiary or ownership changes
- Inconsistent customer information
- Activity requiring additional due diligence

Customer risk is dynamic. AI helps insurers reassess risk throughout the customer relationship while experienced investigators retain responsibility for all material compliance decisions.

USE CASE 2: Entity data quality

Improve the quality and reliability of customer and policy data by identifying duplicate records, resolving entities and creating a more complete view of customer risk.

Why it matters

- Customer and policy information is often spread across legacy and operational systems.

- Duplicate records, inconsistent identifiers and fragmented customer data can prevent institutions from recognizing that multiple policies, claims or accounts relate to the same customer or connected parties.
- Poor data quality increases alert volumes, investigation effort and the consistency of compliance decisions.

How AI and Agentic AI enable it

- Match and resolve customer, policy and third-party records across approved data sources to identify when multiple records relate to the same individual or organization.
- Detect duplicate, inconsistent or incomplete customer information and highlight potential data quality issues for review.¹
- Create a more complete customer profile by linking related policies, beneficiaries, claims, payments and other relevant relationships.
- Gather and organize relevant customer, policy and third-party information to support investigator review.

Business outcomes

- More accurate and complete customer profiles.
- Better context for alerts and investigations.
- Less manual data reconciliation.

¹ **Governance note:** AI-assisted data quality improvement and entity resolution should operate only on authorized data sources and in accordance with applicable local data protection and regulatory requirements.

BEFORE

Fragmented customer records



CRM
John Smith

Policy Admin
J. Smith

Claims
Jonathan S.

Payments
J Smith

AFTER

Unified customer profile



John Smith

- ✓ Customer profile
- ✓ Policy portfolio
- ✓ Beneficiaries
- ✓ Premium payments
- ✓ Claims history
- ✓ Screening results
- ✓ Previous investigations

AI helps reconcile fragmented customer information into a more complete and reliable customer view, improving investigation context and risk assessment.

Together, these capabilities demonstrate how AI and Agentic AI can enhance established customer due diligence processes by improving data quality, enriching risk assessments and reducing the manual effort required to investigate potential financial crime, while keeping experienced investigators firmly in control of regulatory decisions.

AI-enhanced monitoring and alert prioritization

02

Established rules remain essential for identifying known scenarios and threshold breaches. AI adds value by assessing activity in context, identifying statistical outliers and helping investigators prioritize the alerts most likely to require attention. Agentic AI can then enrich those alerts with relevant information and prepare them for review.

USE CASE 3: Behavioral analytics and anomaly detection

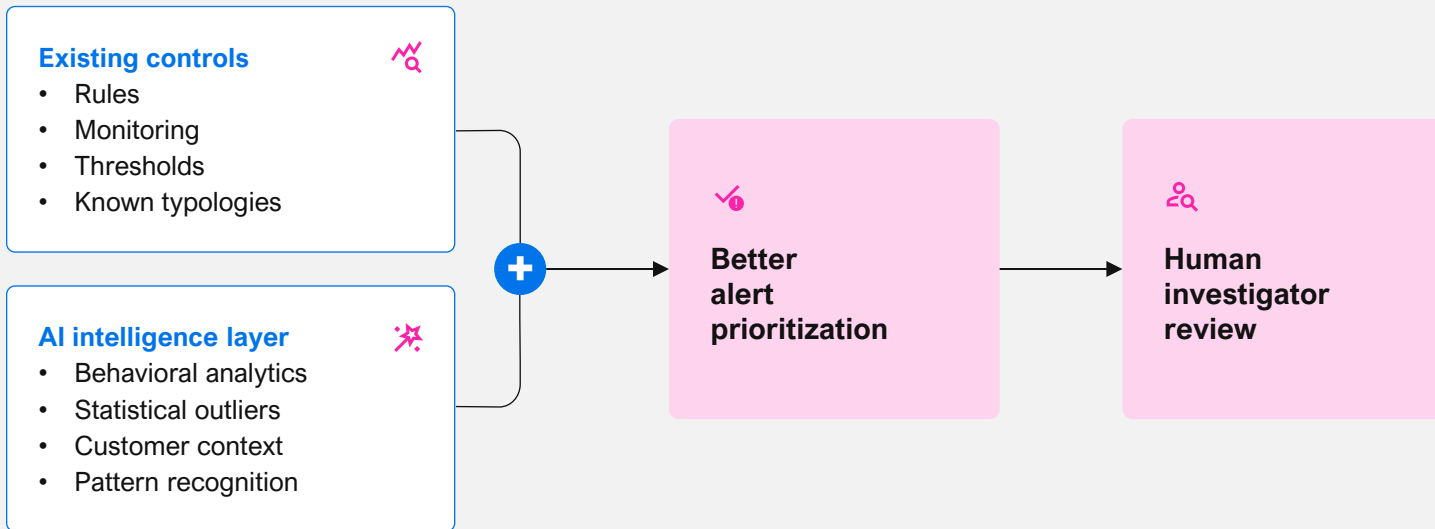
Augment established rules-based monitoring by identifying unusual activity, statistical outliers and behavioral patterns for better detection controls and follow-up investigation.

Why it matters

- Established rules are effective at identifying known financial crime scenarios, thresholds and policy events.
- Some potentially relevant activity may not fit a predefined rule or may only become meaningful when assessed against a customer's previous behavior and wider policy context.
- Unusual activity does not necessarily indicate financial crime, but it may provide an additional signal that helps investigators determine where closer examination is appropriate.
- Compliance teams need a proportionate way to identify these less obvious cases without creating unmanageable volumes of additional alerts.

How AI and Agentic AI enable it

- Analyze customer, policy and payment activity to identify statistical outliers and unusual deviations from expected behavior.
- Assess activity against relevant customer and policy context rather than relying solely on individual transactions or fixed thresholds.
- Surface unusual combinations of events that may not independently trigger an established monitoring rule.
- Apply AI-generated risk indicators alongside existing rules and scenarios to support alert prioritization rather than replace established controls.
- Agentic AI can gather relevant information from approved systems and prepare a structured summary explaining why an event has been surfaced for investigator review.



Illustrative insurance scenarios

AI-supported behavioral analysis may help identify activity such as:

- Premium payments that differ materially from a customer's established behavior or known circumstances.
- Unusual combinations of beneficiary, ownership, funding or surrender changes.
- Refund or cancellation activity that appears inconsistent with the original payment pattern.
- Multiple individually permissible events that become more relevant when viewed collectively.
- Activity involving third-party payments or destinations that requires additional contextual review.

These events are not inherently suspicious and may already be subject to established business rules. AI provides an additional analytical layer that can help determine which cases warrant closer human review.

Business outcomes

- Strengthen detection by complementing established rules with behavioral intelligence and contextual risk indicators.
- Provide investigators with richer context for review.
- Support more effective alert prioritization while preserving existing monitoring controls.

USE CASE 4: Intelligent alert enrichment and triage

Reduce the manual effort required to prepare alerts for investigation by automatically gathering relevant information, assessing data completeness and presenting the case in context.

Why it matters

- Alerts generated by monitoring controls often require investigators to retrieve information from multiple customer, policy, payment and case-management systems.
- A significant proportion of investigation time can be spent gathering, checking and organizing information before meaningful risk analysis begins.
- Incomplete or inconsistent alert context can lead to repeated searches, inconsistent review practices and unnecessary escalation.
- Compliance teams need to improve productivity without compromising the quality, transparency or defensibility of their decisions.

How AI and Agentic AI enable it

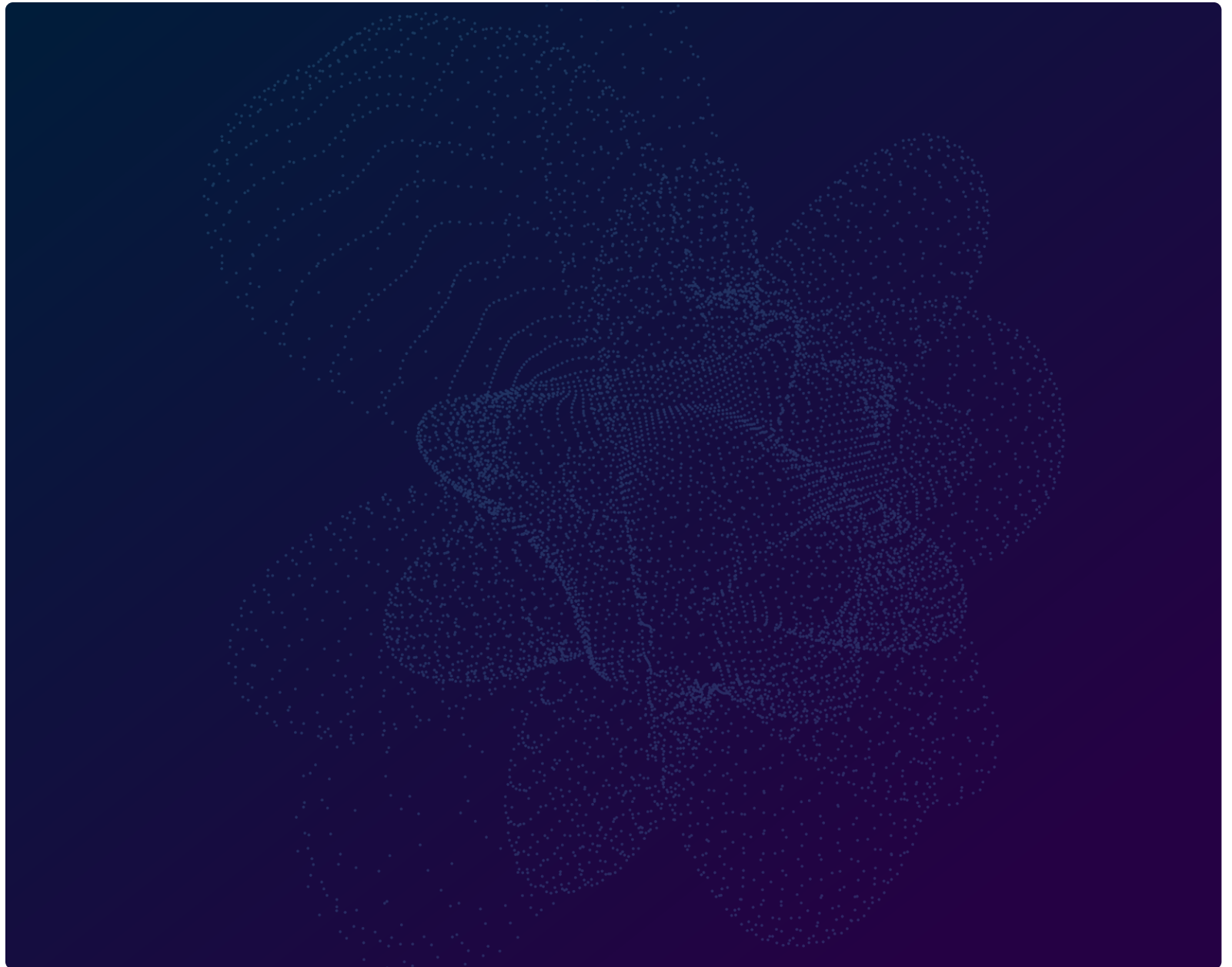
- Enrich alerts with relevant customer, policy, payment, screening and previous case information from approved sources.
- Identify missing, inconsistent or potentially relevant information that an investigator may need to consider.

- Summarize the alert trigger/event, associated activity and relevant contextual factors in a consistent format.
- Support risk-based triage by combining existing rule outputs with customer context, behavioral indicators and prior investigation history.
- Agentic AI can coordinate the information-gathering workflow and prepare a structured evidence pack or recommended review sequence for the investigator.
- Maintain a traceable record of the information used while ensuring that investigators retain responsibility for all escalation and closure decisions.

Business outcomes

- Reduce manual evidence-gathering and alert-preparation effort.
- Accelerate the initial assessment of monitoring alerts.
- Improve the quality and consistency of information presented to investigators.
- Enable compliance teams to focus more time on risk interpretation and complex cases.
- Strengthen auditability and transparency through structured, traceable alert enrichment.

Together, behavioral analytics, alert enrichment and intelligent triage can help insurers gain more value from established monitoring controls. AI provides an additional analytical and operational layer, helping investigators focus on the alerts that require the greatest attention while retaining full responsibility for risk interpretation and decision-making.



03

Investigation, screening and compliance operations

Once potential financial crime risks have been identified, investigators must gather relevant information, assess alerts, document decisions and meet regulatory reporting obligations. These activities are often manual, repetitive and time-intensive, reducing the time available for higher-value investigative work.

AI can support these processes by helping prioritize alerts, summarize relevant information and improve the consistency of case analysis. Agentic AI can go further by coordinating governed investigative tasks, gathering evidence from approved sources and preparing structured case materials for human review.

The objective is to reduce administrative effort while improving investigation quality, consistency and decision support, without removing human accountability.

USE CASE 5: Cross-functional investigation context

Bring relevant information from AML, screening, fraud and claims into the investigation where available and authorized.

Why it matters

- Financial crime investigations often require information held across multiple operational and compliance systems.
- Investigators may need to review customer records, policy information, payment activity, screening results and previous cases before reaching a decision.
- Fragmented information can increase investigation time, create duplication and lead to inconsistent case outcomes.
- Relevant fraud or claims information may also provide useful context where it is available, even when those activities are managed by separate teams.

How AI and Agentic AI enable it

- Bring together relevant customer, policy, payment, screening and previous case information from approved sources.
- Summarize key facts, highlight inconsistencies and risk indicators in a structured format for investigator review.
- Highlight potentially relevant information from adjacent functions, such as fraud or claims, where those data sources are available and authorized for use.
- Agentic AI can coordinate evidence gathering and prepare an initial case overview while maintaining a traceable record of the sources used.

Business outcomes

- Reduce time spent gathering information from multiple systems.
- Improve the completeness and consistency of investigation context.
- Reduce duplicate investigative effort.
- Support better-informed risk decisions.
- Improve collaboration across relevant financial crime and operational teams.
- Maintain transparency through traceable evidence and source references.

USE CASE 6: Intelligent investigation and case preparation

Accelerate financial crime investigations by reducing the manual effort required to gather evidence, prepare case materials and document findings.

Why it matters

- Investigations remain labor-intensive, particularly where investigators must retrieve and reconcile information from multiple systems.
- Investigators often spend substantial time preparing case chronologies, summarizing activity and documenting the rationale for decisions.
- Inconsistent case preparation can affect investigation quality, auditability and regulatory defensibility.
- Compliance teams need to improve productivity without compromising judgement, governance or human accountability.

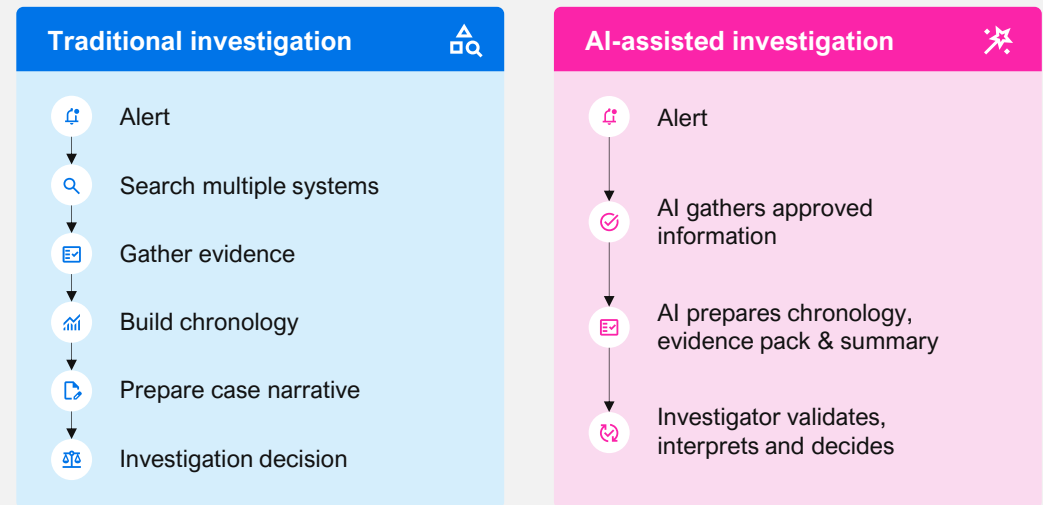
How AI and Agentic AI enable it

- Gather relevant customer, policy, payment, screening and previous investigation information from approved sources.
- Create a structured chronology of activity and highlight missing, inconsistent or potentially relevant information.
- Summarize the evidence and prepare a draft investigation narrative for investigator review.
- Support the preparation of regulatory reporting documentation based on investigator-approved facts and decisions.
- Maintain a clear audit trail showing the information used, the tasks performed and the points at which human approval was required.

Business outcomes

- Reduce time spent on evidence gathering and case preparation.
- Accelerate investigation and case-resolution times.
- Improve the quality and consistency of investigation documentation.
- Support more complete and timely regulatory reporting.
- Increase investigator capacity for higher-risk and more complex cases.
- Strengthen auditability and regulatory defensibility.

AI accelerates evidence gathering and case preparation while investigators retain responsibility for all material compliance decisions.



USE CASE 7: Sanctions screening and alert review

Improve sanctions alert quality and reduce unnecessary manual review through more accurate matching, contextual analysis and risk-based prioritization.

Why it matters

- Insurance screening can involve policyholders, beneficiaries, payers, brokers, intermediaries and other connected parties.
- Variations in names, transliteration, incomplete records and poor-quality data can generate high volumes of false-positive alerts.
- Investigators often spend significant time reviewing alerts that can be resolved through better contextual information.
- Screening decisions must remain explainable, traceable and subject to appropriate human oversight.

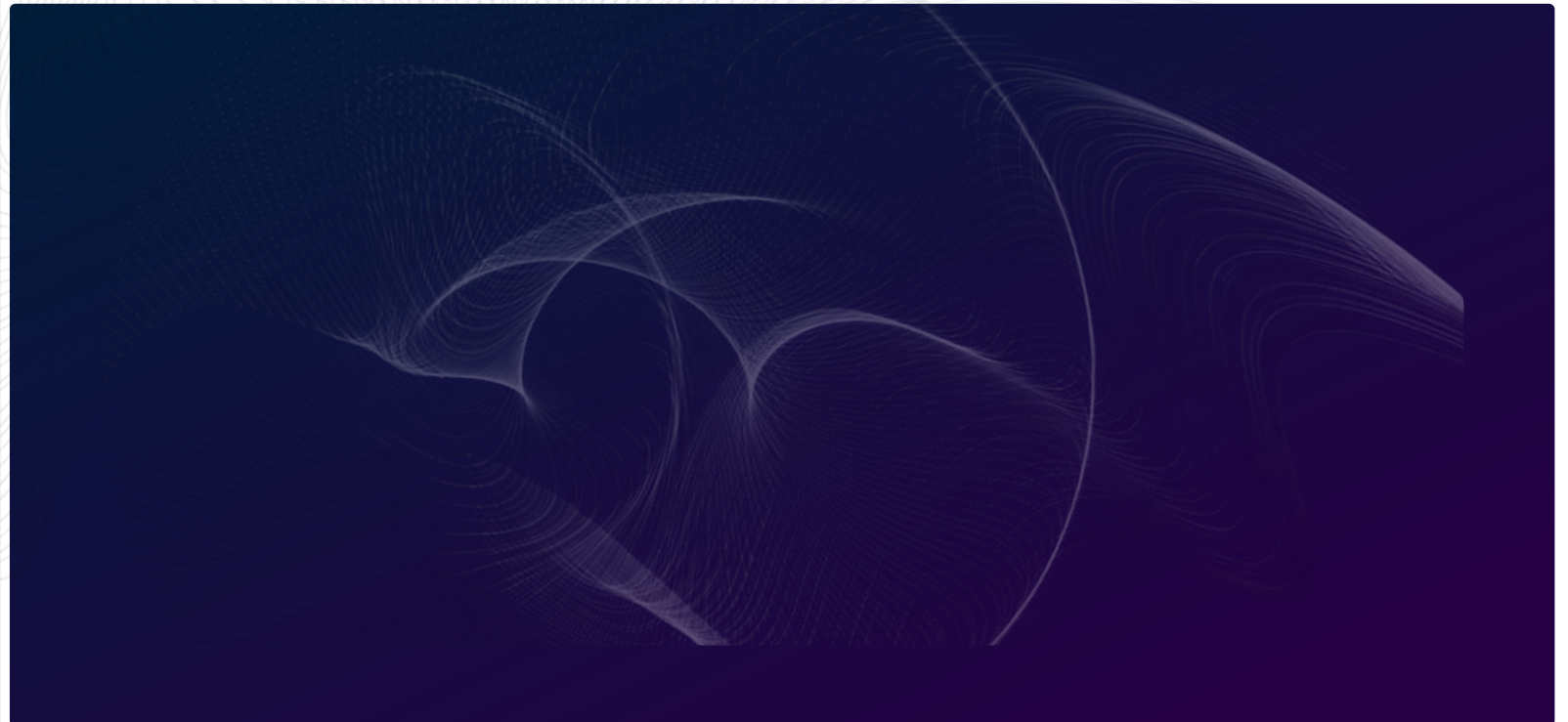
How AI and Agentic AI enable it

- Improve name-matching accuracy by assessing spelling variations, transliteration and contextual customer information.
- Structure unstructured data in payment messages to improve screening accuracy
- Use available customer, policy and relationship context to support more informed alert prioritization.

- Identify missing or inconsistent data that may affect screening quality.
- Enrich alerts with relevant customer, policy and previous screening information before investigator review.
- Agentic AI can gather supporting information, summarize the potential match and prepare a structured review pack for the investigator.
- Maintain explainable matching logic, evidence references and human approval for all screening decisions.

Business outcomes

- Fewer unnecessary manual reviews.
- Faster, more consistent alert assessment.
- Stronger explainability and audit readiness.



USE CASE 8: Compliance workflow and decision support

Support more consistent compliance processes by helping teams organize regulatory information, assess operational implications and maintain traceable governance records.

Why it matters

- Regulatory expectations, policies and internal control requirements continue to evolve.
- Compliance teams must assess how changes may affect procedures, monitoring activities, documentation and governance.
- Regulatory impact analysis and control reviews often rely on manual interpretation, coordination and evidence gathering.
- Firms need consistent, auditable processes without delegating regulatory judgement to AI.

How AI and Agentic AI enable it

- Summarize relevant regulatory and policy information.
- Identify potential impacts on procedures, controls and documentation.
- Prepare draft assessments, action logs and governance materials.
- Coordinate defined review and approval workflows.

Business outcomes

- Faster regulatory and control-impact reviews.
- More consistent governance documentation.
- Clearer accountability and audit evidence.

Together, these applications show where AI and Agentic AI can deliver the clearest near-term value within insurance financial crime operations: reducing the manual effort involved in alert review, investigation, screening and compliance administration. Rather than replacing established controls or professional judgement, they provide investigators and compliance teams with better information, more consistent workflows and greater capacity to focus on complex risk decisions.



Regulation changes



AI summarizes



Control assessment



Human approval



Evidence retained

Conclusion



The insurance industry is entering a new phase of financial crime prevention. Increasing regulatory expectations, evolving criminal typologies and growing operational pressures are encouraging insurers to rethink how financial crime risk is assessed, investigated and managed.

AI is already helping insurers improve the quality, consistency and efficiency of financial crime operations by supporting behavioral analysis, alert prioritization, investigation and screening. Agentic AI builds on these capabilities by coordinating governed investigative tasks, gathering relevant information from approved sources and preparing structured decision support for professionals, while maintaining full human oversight.

AI is becoming a practical capability to strengthen the effectiveness and efficiency of financial crime operations and help compliance teams make more informed, consistent and defensible decisions. The greatest value comes from applying AI where it enhances existing controls, reduces manual effort and supports human expertise – not replacing it.

Where AI delivers practical value across insurance financial crime operations

Capability area	Primary value of AI and Agentic AI
Customer risk assessment	Identify unusual behaviors, enrich customer risk assessments and improve ongoing due diligence
Behavioral analytics & monitoring	Prioritize alerts by analyzing activity in context and identifying statistical outliers
Investigation support	Gather evidence, organize information and prepare structured case summaries
Sanctions screening	Improve alert quality through contextual analysis and intelligent prioritization
Compliance workflows	Reduce manual effort through documentation, workflow support and governance assistance
Data quality & entity resolution	Improve customer data quality and create more complete investigative context
Unified investigative intelligence	Bring together relevant information from multiple systems to support consistent risk decisions

Explore where AI can deliver the greatest value

Every insurer's financial crime challenges are different. Whether your organization is looking to strengthen AML, improve fraud detection, modernize investigations or explore the potential of Agentic AI, understanding where AI and Agentic AI can deliver the greatest business value is the first step.

Speak with one of our financial crime specialists to explore where AI and Agentic AI can deliver the greatest value across your financial crime operations.

Email connect.fs@symphonyai.com

Visit www.symphonyai.com



Authors



Charmian Simmons

Principal Strategic Advisor,
FinCrime Compliance
SymphonyAI



Lala Huseynli

Financial Services Marketing
and Growth Lead, EMEA
SymphonyAI