

CELENT



# TECHNOLOGY TRANSFORMATION IN FINANCIAL CRIME COMPLIANCE

Improving workforce efficiency to manage risk and add value

Celent Risk Team  
September 2023

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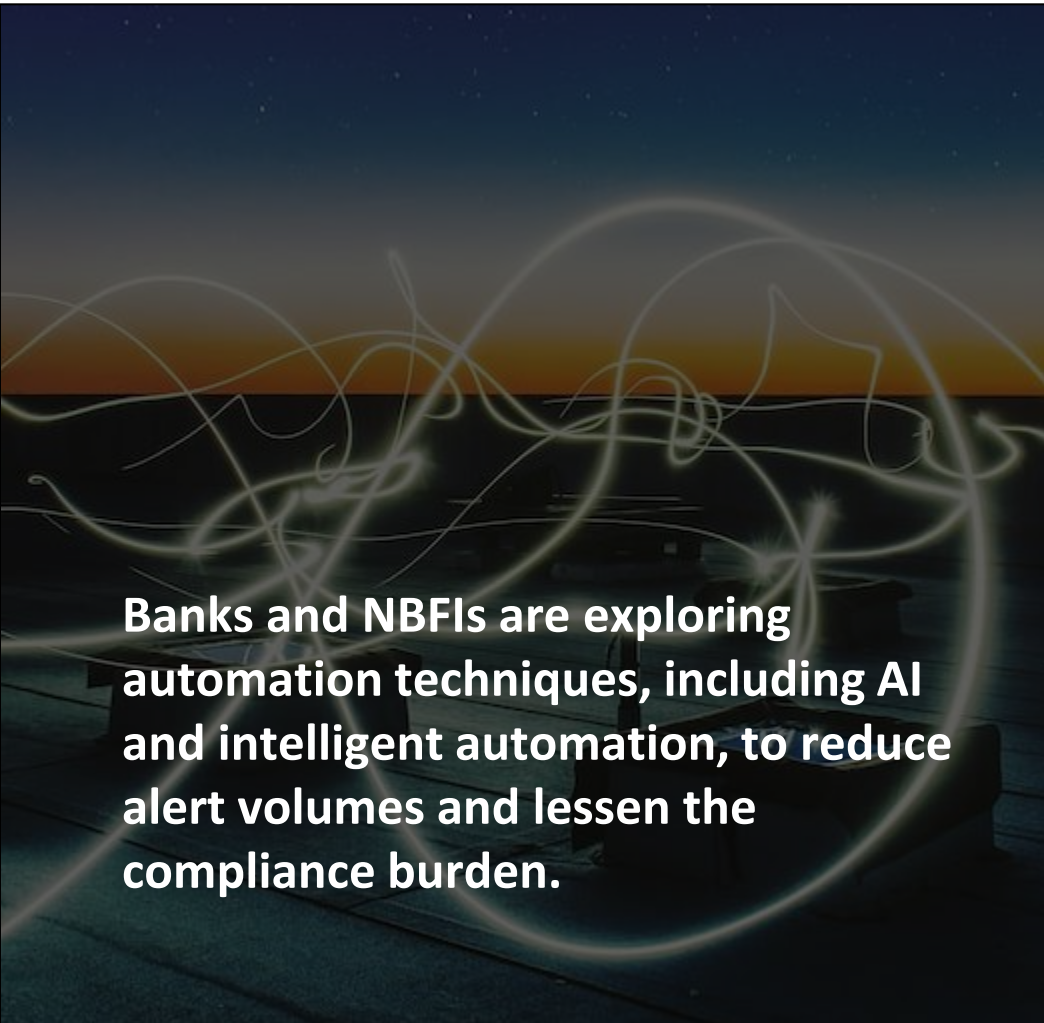
## About the Survey

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## About WorkFusion

# **EXECUTIVE SUMMARY**

# ACHIEVING MORE EFFICIENT COMPLIANCE



**Banks and NBFIs are exploring automation techniques, including AI and intelligent automation, to reduce alert volumes and lessen the compliance burden.**

Compliance departments at banks and non-bank financial institutions (NBFIs) are challenged to keep up with the high volumes of alerts generated by their screening and detection systems. Analyst teams dedicated to investigating and decisioning alerts number in the hundreds or even thousands at large banks. Meanwhile, compliance units at smaller institutions are challenged to maintain adequate coverage with the limited resources available to them.

Adding to the pressure, employee retention and other staffing issues are business as usual in financial crime compliance. Organizations are addressing these staffing challenges through a variety of methods including additional training (reskilling and upskilling), outsourcing, and technology.

We surveyed banks; savings institutions and credit unions; and fintechs, neobanks, and cryptocurrency firms to understand the workforce challenges facing compliance departments and the human, analytic, and technology levers they are pulling to address these issues.

Focusing on watchlist screening and KYC operations, the study presents the results of a survey of 110 compliance, operations, risk and IT professionals in North America.<sup>1</sup>

## Staffing Challenges

**70%**

of banks and NBFIs face capacity challenges in their compliance operations

## Technology Levers

**78%**

have tried or considered using automation and AI to mitigate the impact of employee shortages

## Successful Outcomes

**30%**

say they have solved capacity issues by adopting technology to increase efficiency and productivity

Source: Celent/WorkFusion Financial Crime Compliance Survey, 2023. N = 110

1. See details on organizations and professionals surveyed in "About the Survey" on page 24.

# TECHNOLOGY TRANSFORMATION TO ALLEVIATE CAPACITY ISSUES AND SUPPORT ENHANCED COMPLIANCE

## Limitations of current tech systems

Financial crime compliance operations face a range of staffing and capacity challenges.

Staff shortages and employee retention are perennial issues that create an unvirtuous cycle, leading to delays in compliance processes and limiting the ability of compliance departments to support the business.

Furthermore, it can take six months or more to hire new staff—even for entry-level analysts—and, especially for experienced roles, another six months to train them.

Organizations have deployed a range of technology solutions aimed at alleviating capacity shortfalls. Many, however, find that their existing technology does not deliver on ROI, incurs tech debt, or generates inaccurate results.

## AI is transforming financial crime compliance

Artificial intelligence (AI) is emerging as a transformative technology for financial crime compliance.

AI can support enhanced insights and high levels of business process automation. State-of-the-art financial crime compliance solutions often use a combination of machine learning, natural language processing (NLP), and intelligent automation to achieve these results.

Generative AI is an emerging but rapidly developing technology that will inevitably be used to support numerous use cases in financial crime compliance.

For financial institutions seeking to leverage AI, it is important to understand the specific techniques and use cases supported by AI-enabled solutions. Organizations should perform due diligence to verify that the technology is fit-for-purpose.

## Stronger compliance through automation

Leveraging automation technology to enhance efficiency and productivity can alleviate capacity shortfalls and transform an unvirtuous cycle in compliance operations into a virtuous one.

Automation can help organizations implement perpetual KYC by lessening the heavy operational demands of frequent KYC refresh and event-driven monitoring.

As automation frees up additional capacity, compliance departments can better support strategies to manage risk and add value.

Analysts could be targeted to expedite shorter timeframes for account opening. More capacity for customer reviews can help organizations increase customer risk appetite to support business growth.

**73%** of banks and NBFIs are not getting sufficient uplift from their current automation technology

**86%** will increase their spending on AI/machine learning over the next two years

**93%** would direct additional capacity toward improving compliance through perpetual KYC and supporting the business



# 1

## **WORKFORCE AND STAFFING ISSUES**

# COMPLIANCE WORKLOADS ARE SENSITIVE TO A RANGE OF EXTERNAL PRESSURES

## Geopolitical issues and sanctions

Geopolitical issues are a major driver behind ever-increasing sanctions requirements. 30% of organizations cited geopolitical issues including the Russia-Ukraine conflict as the top environmental issue affecting compliance operations.

Banks were the most sensitive to geopolitical issues, with 40% citing it as the primary external issue.

## Digital services changing consumer behavior

The widespread adoption of digital financial services and e-commerce is triggering profound changes in consumer behavior, with accompanying shifts in transaction patterns. 30% of organizations see this as the leading external factor affecting compliance operations.

Shifts in behavior were the top external issue for savings/credit unions and for fintechs, neobanks, and crypto businesses.

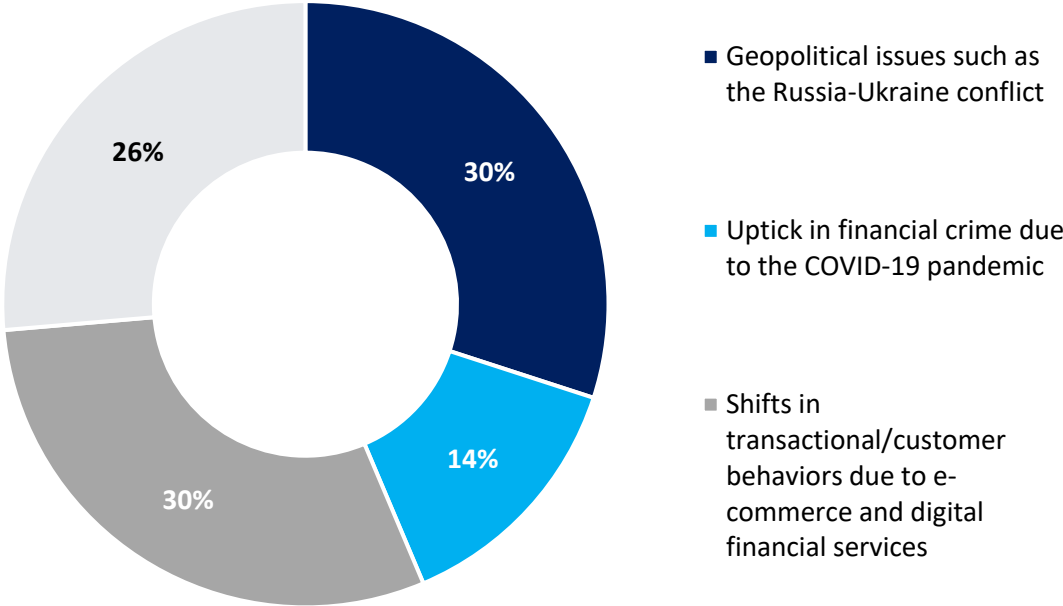
## Downward pressure on budgets

26% see recessionary pressures as impacting compliance budgets and staffing.

## COVID-19 and financial crime

The pandemic provided the conditions for a surge in fraud in 2020–21, requiring a rapid response from anti-financial crime departments. Today, fraud threats have receded into business as usual and only 14% of organizations see this as the top factor affecting compliance operations.

What is the top external issue impacting your compliance operations?



# MANY ORGANIZATIONS FACE CHRONIC AND ACUTE STAFFING CHALLENGES

61% are looking for improvement

## 22% of firms are understaffed

Understaffing leads to an inability to adequately fulfill SLAs and business objectives. For 7% of firms, the situation is acute.

Tier 1 organizations, as well as Tier 4, were the most challenged, with 45% and 40% respectively indicating they are understaffed.

## Only 26% are happy with their staffing level

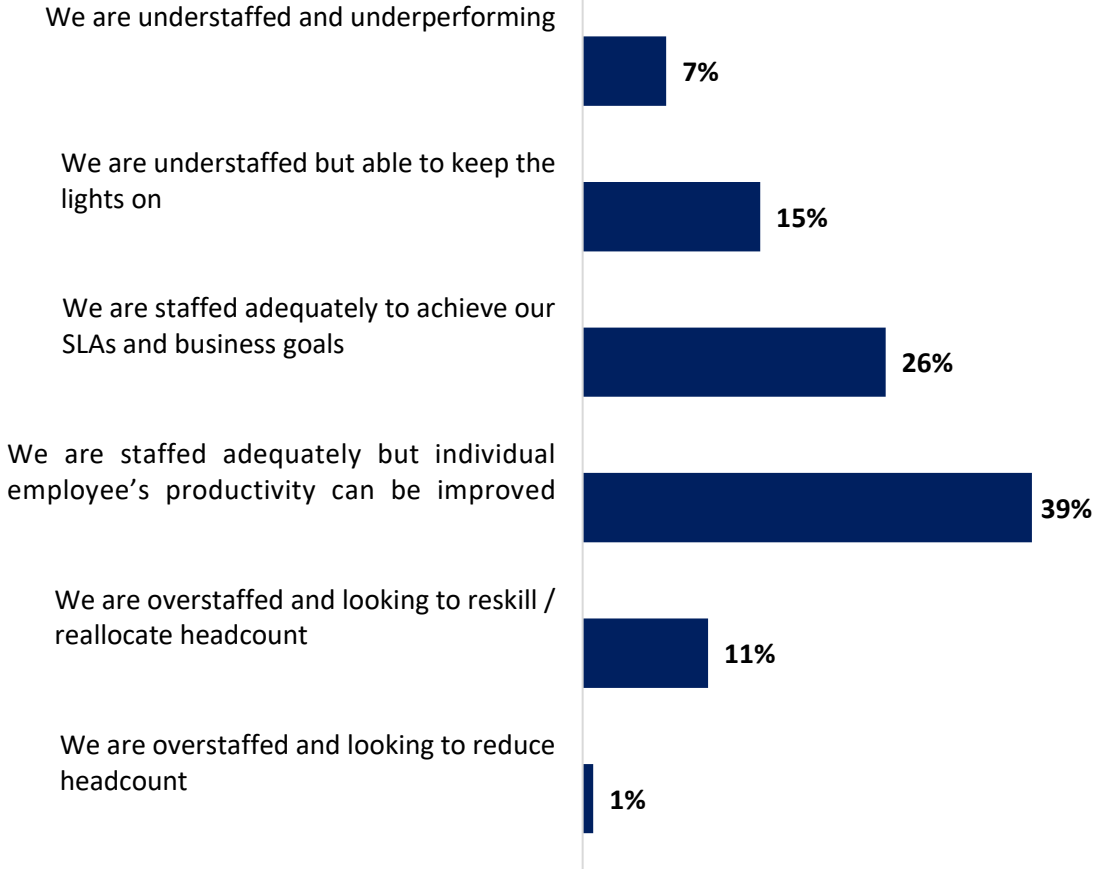
While some firms say they can achieve their SLAs and business goals with current teams, more firms (39%) say they are “adequately staffed” but admit to challenges with employee productivity. In other words, many firms that are able to fill positions still face performance issues in their compliance operations.

Moreover, as discussed on the next page, many firms that report being adequately staffed may still need to juggle resources to fill gaps.

## Only 12% of firms report being overstaffed

Most of these are looking to move redundant workers to other positions, not reduce headcount—highlighting the overall demand for staff in the industry.

## How would you describe current headcount in your organization?



# MOST ORGANIZATIONS FACE CAPACITY SHORTFALLS—INCLUDING THOSE THAT ARE “STAFFED ADEQUATELY”

## Strategies for filling capacity gaps

70% of banks and NBFIs face capacity challenges in their compliance operations—meaning that many departments that are “staffed adequately” face at least occasional capacity shortfalls.

38% of firms fill capacity gaps by calling on more senior personnel to pitch in.

Smaller organizations are more likely to call on their compliance officers to help out—44% of organizations with assets under US\$50 billion rely on senior personnel to close gaps. This clearly impacts the time these senior personnel can spend on higher value activities.

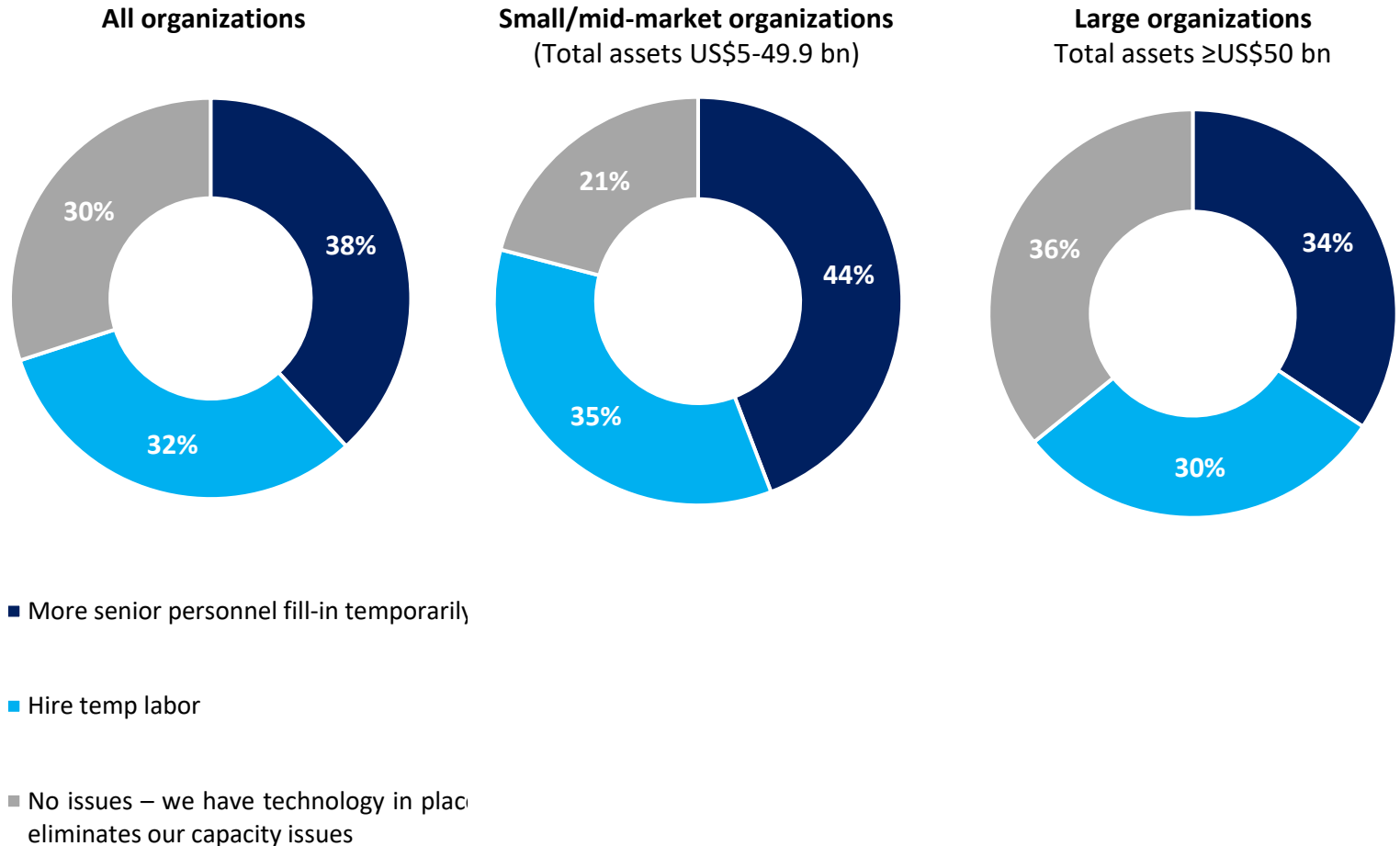
Highlighting the ongoing nature of capacity shortfalls in compliance, 26% of organizations that are “staffed adequately” to meet their SLAs and 43% of those that are “staffed adequately” but face productivity issues need to call on senior personnel to fill gaps.

This points to the endemic personnel challenges facing compliance departments.

## Solving capacity issues with technology

While most organizations face capacity issues, 30% say they have solved these challenges by adopting technology to increase efficiency and productivity.

## How does your organization typically solve for capacity issues in the compliance operation?



# STAFFING CYCLES FOR COMPLIANCE ANALYSTS CAN BE LENGTHY—EVEN FOR ENTRY-LEVEL ROLES

### Hiring Cycles

Nearly two-thirds (63%) of firms report that it takes four months or longer to fill experienced compliance analyst roles. Only 10% of firms can find experienced analysts in less than one month.

More firms (23%) can fill entry-level analyst roles quickly. Yet entry-level positions are still a challenge, taking four months or longer to fill them at 47% of firms.

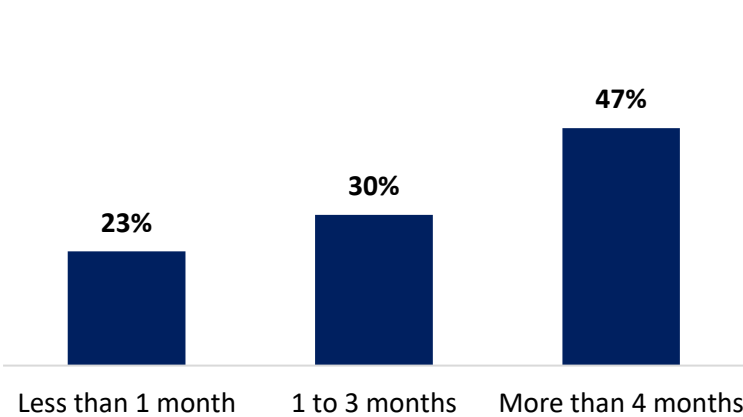
### Training Cycles

Once hired, onboarding and training cycles are fairly straightforward for entry-level analysts, with nearly 62% able to train new hires in three months or less.

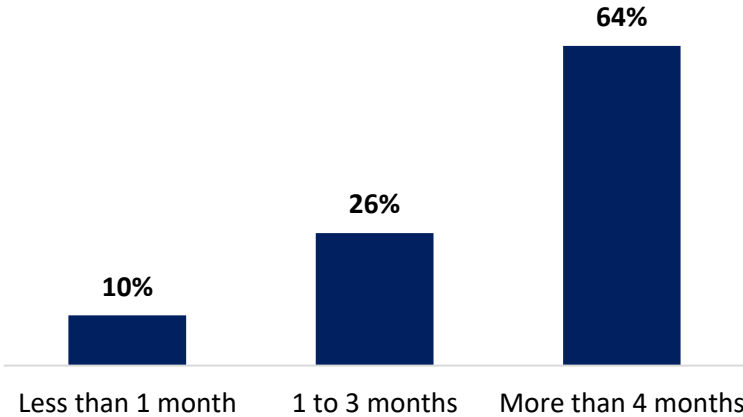
At the same time, at 50% of firms it takes four months or longer to train experienced personnel.

Even viewed through a positive lens, hiring and training compliance analysts is a significant endeavor for firms.

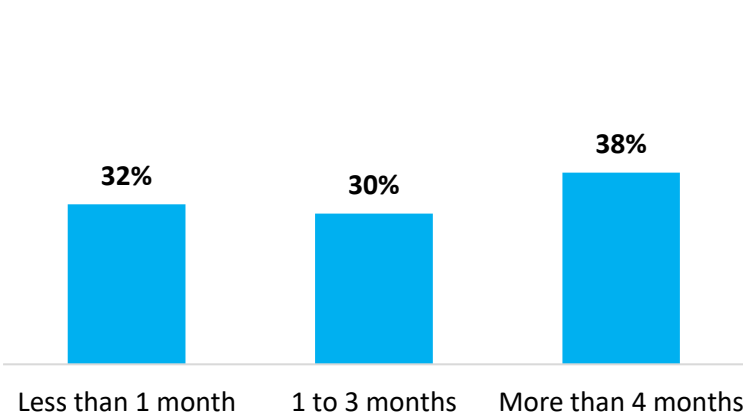
Time Needed to Fill Entry-Level Roles



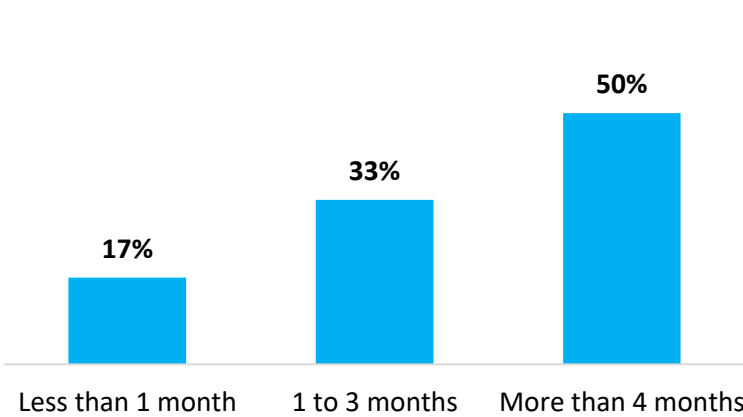
Time Needed to Fill Experienced Roles



Time Needed to Train Entry-Level Roles



Time Needed to Train Experienced Roles



# EMPLOYEE RETENTION ISSUES IMPACT HR, COMPLIANCE, AND THE BUSINESS

## HR Challenges

Employee retention is a widespread challenge in compliance operations. Even firms that are not experiencing shortages often have to expend considerable effort to maintain staffing levels.

In fact, the time spent by HR on keeping staffed up is the top issue stemming from employee retention, cited by 65% of firms.

## Compliance Operations Challenges

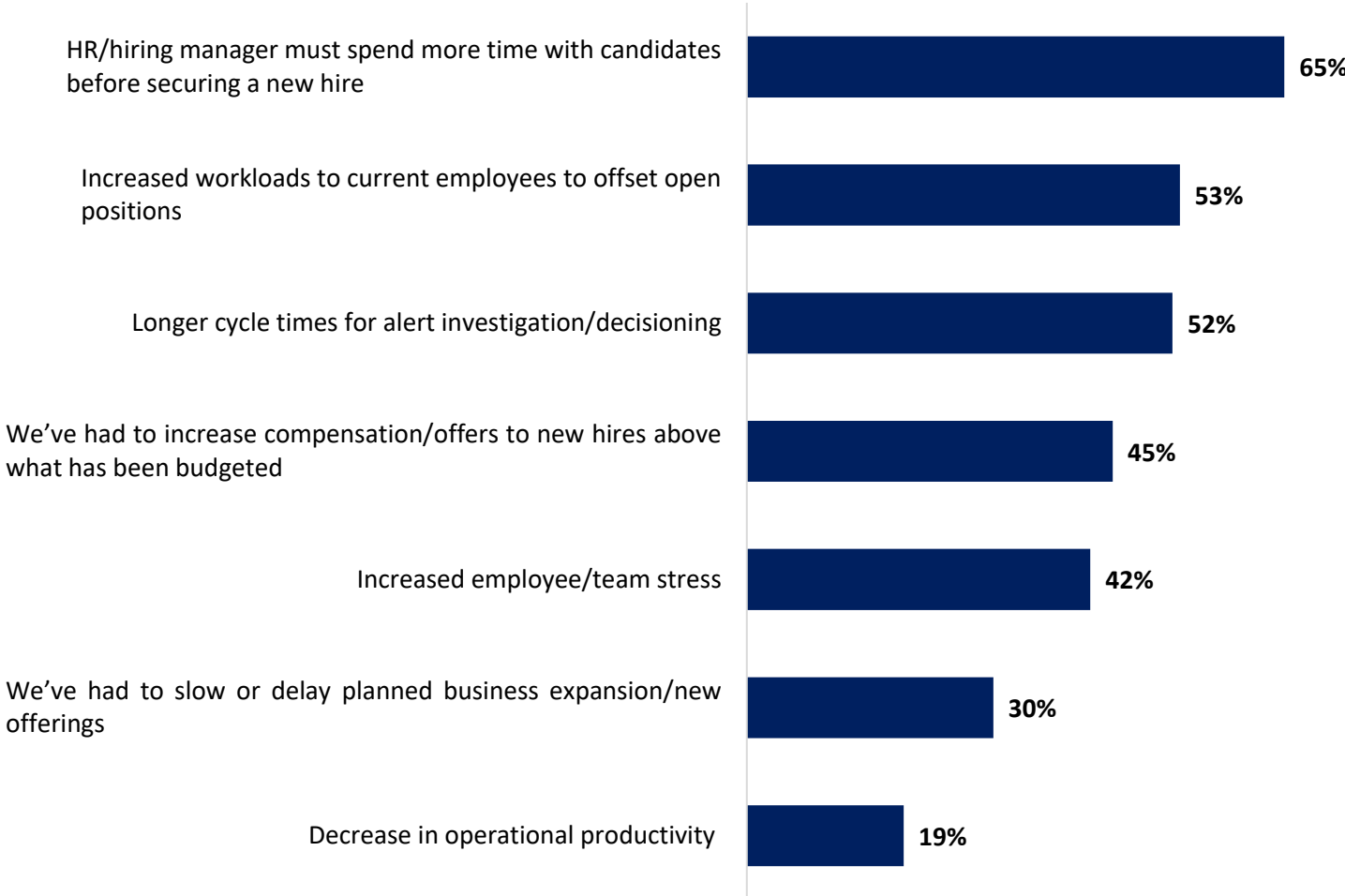
53% agreed that employee retention issues put increased workloads on the remaining staff. About the same proportion of firms said that these staffing challenges led to longer cycle times for alert investigation, directly impacting compliance operations.

## Negative Impact on the Business

Retention issues lead to an unvirtuous cycle where staff attrition places an increased burden on existing staff; requires extra time and money to attract new hires; and causes delays in compliance processes— which in turn slow down the ability to support the business.

Technology inputs can help alleviate staffing issues and turn the unvirtuous cycle into a virtuous cycle.

What negative impacts (if any) have you observed from employee retention issues?



# BANKS AND NBFIS USE A COMBINATION OF TRAINING, AUTOMATION AND OUTSOURCING TO ADDRESS STAFFING ISSUES

Employee shortages have become business as usual in financial crime compliance. Especially for L1 teams, heavy workloads and repetitive and routinized processes can lead to employee burnout.

Most organizations are using or considering training, automation, and outsourcing to counter the impact of staffing challenges.

## Training

83% of firms strive to train themselves out of the problem by reskilling or upskilling existing employees.

## Automation

Nearly as many firms (78%) are also looking to use technology to automate processes and improve efficiencies.

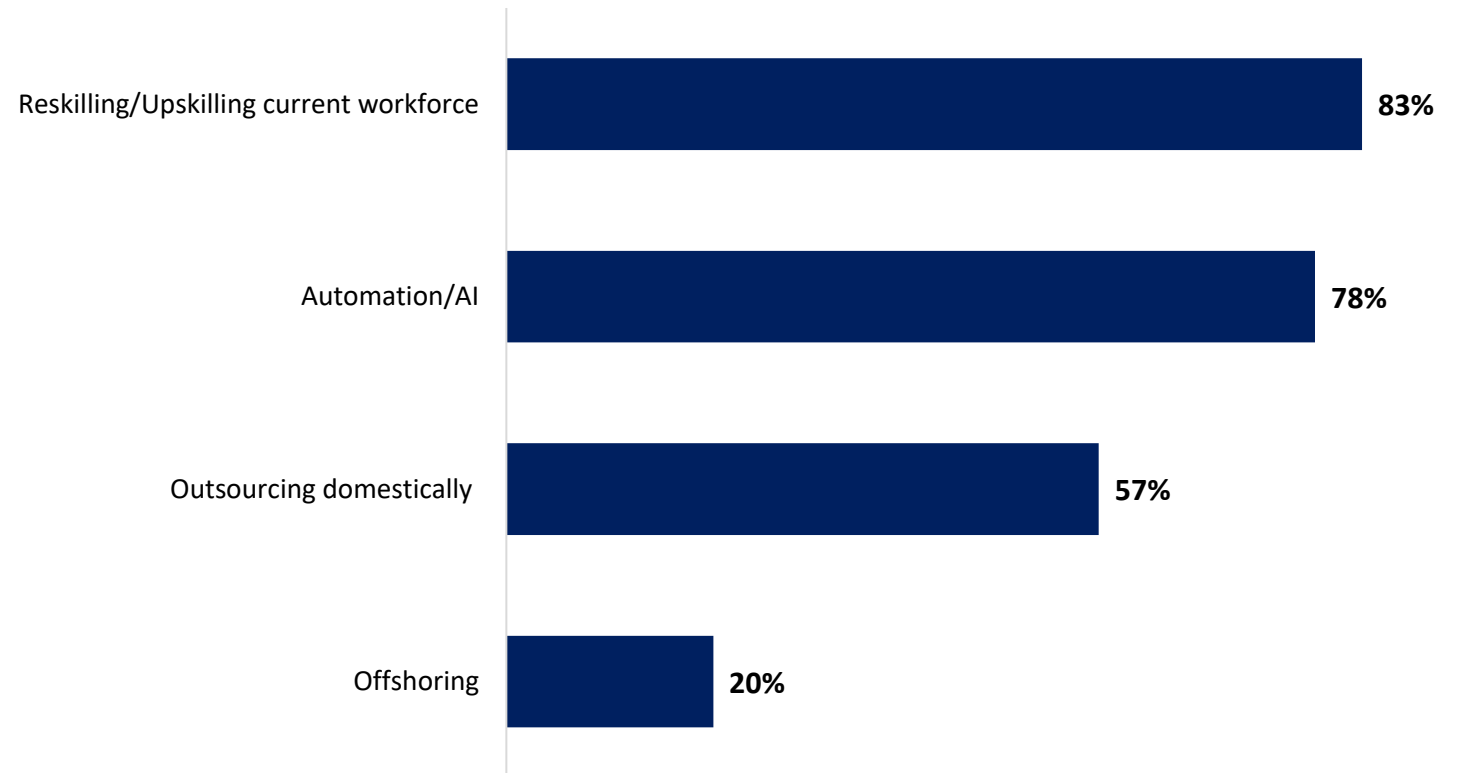
Technology is a powerful lever to reduce or mitigate the need for additional human resources.

## Outsourcing

77% seek to resolve staffing challenges through outsourcing.

Most of these focus on domestic outsourcing, which comes at a higher cost relative to offshoring.

Have you ever thought of or tried these alternative solutions to mitigate the impact of employee shortage issues in your financial crime operations?





# 2

## **IMPROVING EFFICIENCY IN COMPLIANCE**

# ORGANIZATIONS TRY A VARIETY OF APPROACHES TO INCREASE SCREENING EFFICIENCY

Efforts by compliance departments to reduce analyst workloads include screening analytics, staff augmentation, specialized consultants, and technology levers.

These techniques have been used by 42% to 48% of organizations, depending on the technique used.

List management techniques—which include de-duplication, entity consolidation, and targeted application of lists to specific transaction flows or customer segments—have been used by 75% of firms and represents the top approach for banks, savings/credit unions, and fintechs alike.

Good person/bad person rules were the second most common approach taken by banks; staff augmentation was second for savings/credit unions; and consultants were second for fintechs.

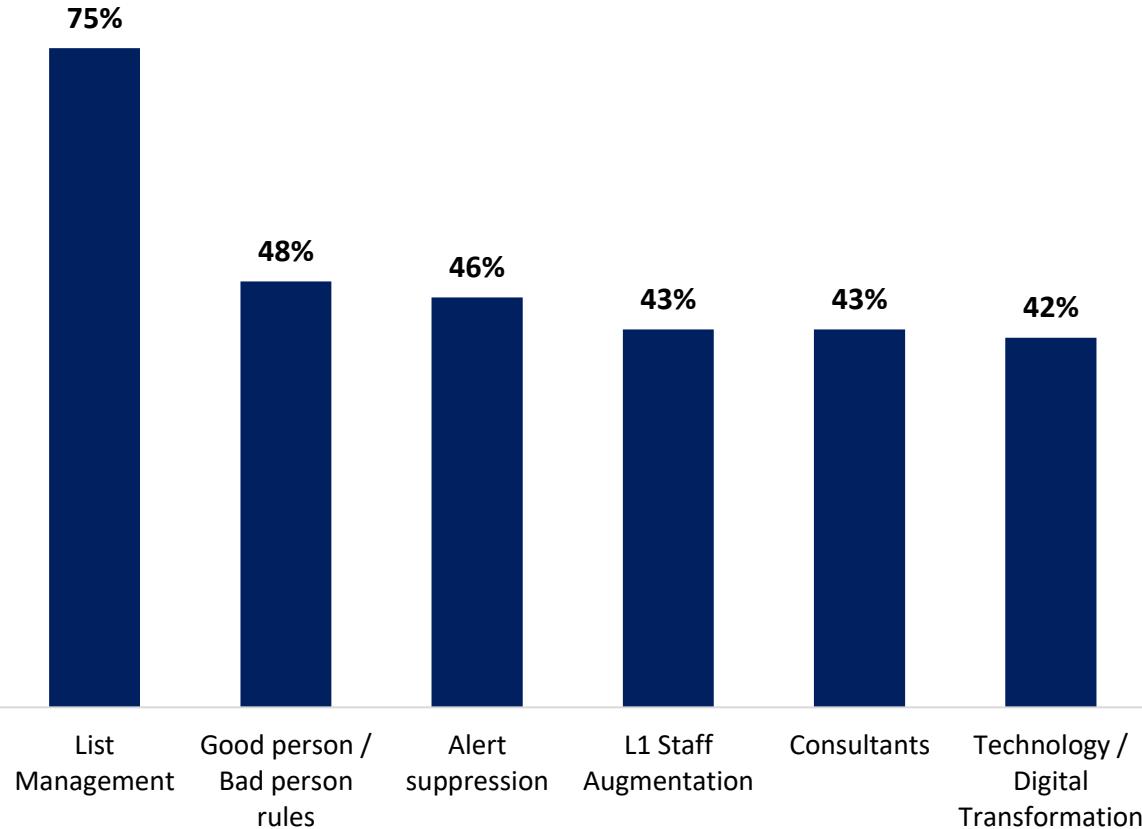
### More upside is achievable

As shown on the following page, for a majority of organizations these techniques yield workload improvements of 25% or less.

- Ironically, throwing bodies at the problem is the least effective approach, with 75% of organizations getting 25% or lower uplift.
- Technology levers are the most effective, enabling 43% of organizations to reduce workloads by 26%.

While organizations have achieved some success in reducing workloads, clearly more can be achieved.

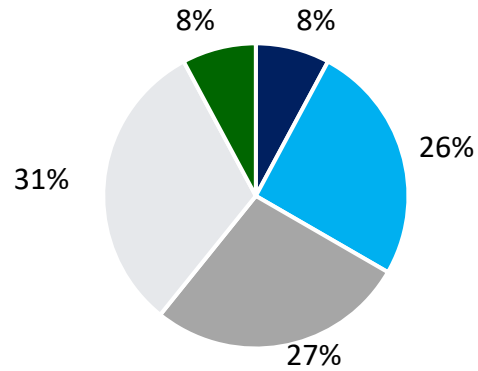
What common industry approaches have you attempted to minimize the work of your compliance function?



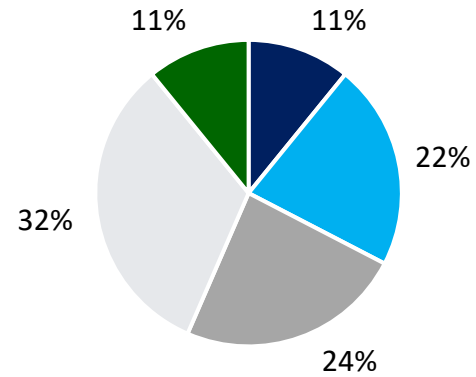
# TECHNOLOGY LEVERS HAVE BEEN THE MOST EFFECTIVE IN INCREASING SCREENING EFFICIENCY

Technology and digital transformation strategies have reduced workloads by 26% or more at 43% of organizations

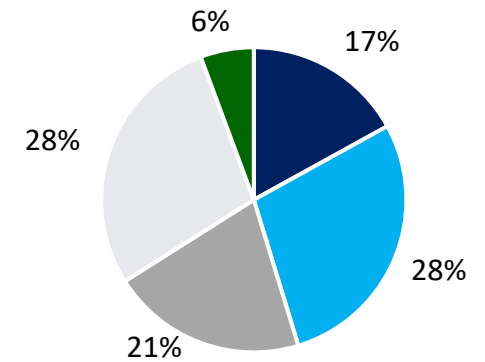
**Alert suppression**



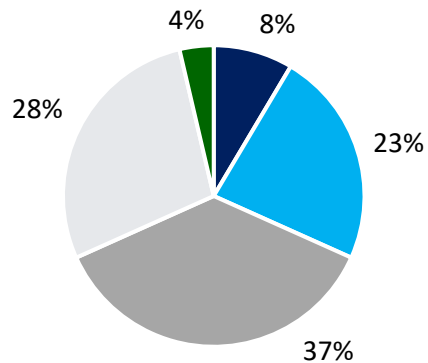
**Technology/digital transformation**



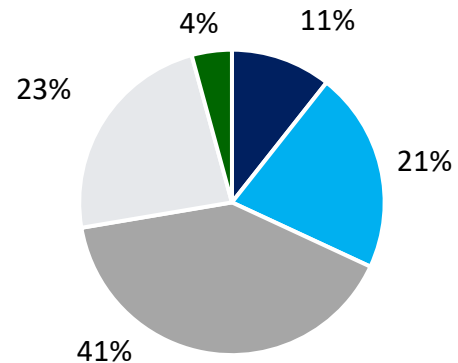
**Good person/bad person rules**



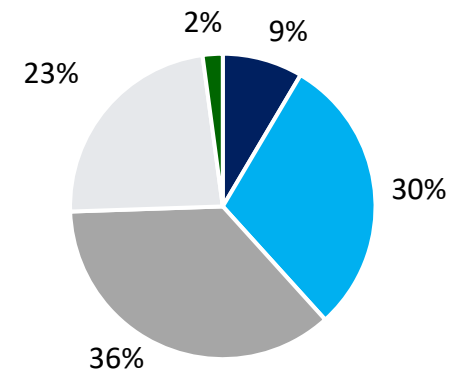
**List management (de-duplication, entity consolidation, reconciliation, etc.)**



**Consultants for program reviews, tuning, etc.**



**L1 staff augmentation**



Key: ■ <5% ■ 5-15% ■ 16-25% ■ 26-50% ■ >50%

# ORGANIZATIONS ARE FOCUSED ON LEVERAGING EFFICIENCY GAINS TO ADD VALUE, NOT CUT COSTS

Automation technology can increase efficiency and productivity, freeing up capacity to support risk and the business.

When asked what they would do with additional capacity, organizations focused on strategies to manage risk and grow the business.

35% of respondents said they would improve risk monitoring by increasing the frequency of KYC reviews.

- 42% of compliance professionals said they would increase monitoring, making them the group most focused on KYC refresh

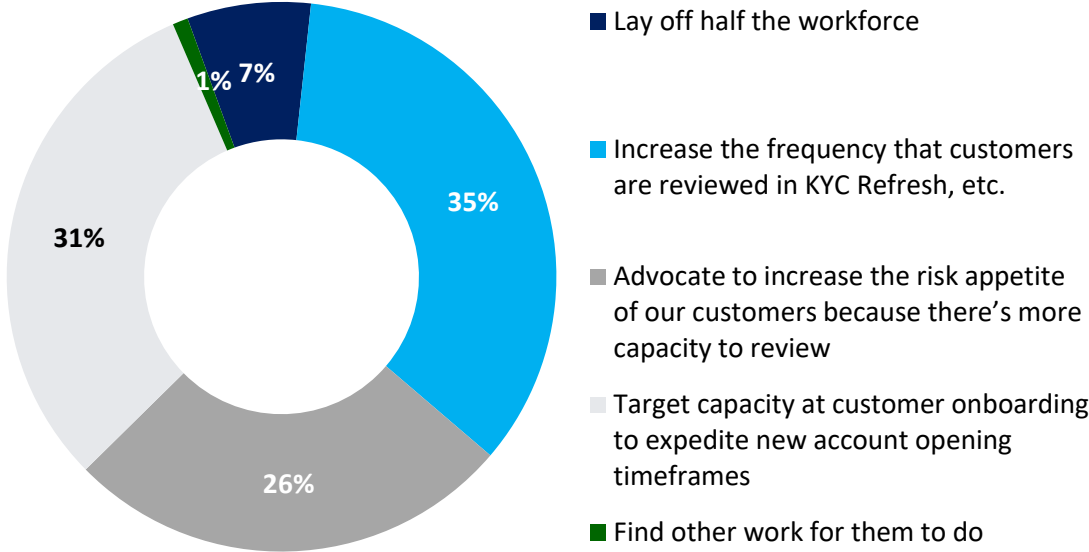
### 57% would use the additional capacity to pursue more revenue

- 31% would work to shorten cycle times for account opening
- 26% would work to increase the firm’s risk appetite to take on new customers
- Operations professionals were the most focused on expediting account opening (50% of operations responses), while operational risk professionals prioritized broadening customer risk appetite (40% of operational risk responses)

### Few firms would use efficiency improvements to reduce staff

Significantly, only 7% said they would reduce staff—suggesting that, for most organizations, compliance automation will not lead to downsizing but instead will enable compliance departments to direct efforts to adding value.

If your compliance team had 2x the capacity, which of the following would you do?





# 3

## **TECHNOLOGY TRANSFORMATION IN FINANCIAL CRIME COMPLIANCE**

# USE OF AUTOMATION TECHNOLOGY BRINGS AWARENESS OF ITS CHALLENGES

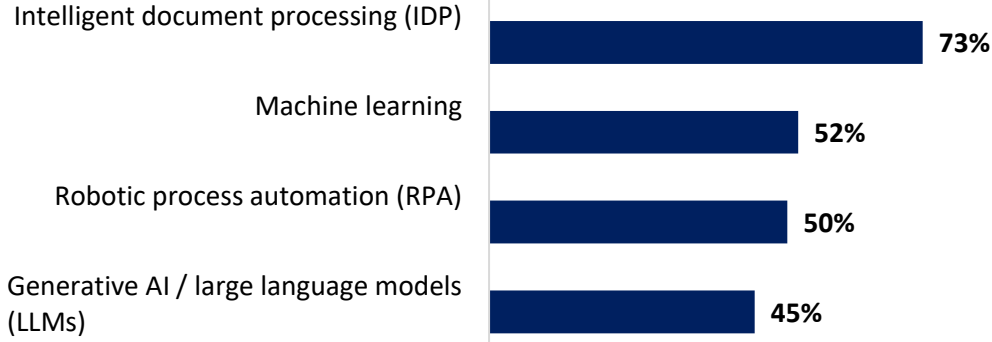
## Automation technology is ramping up...

The use of automation technologies for compliance processes is becoming standard. 73% of firms are using intelligent document processing. IDP uses optical character recognition and natural language processing to digitize and process unstructured data. 52% are applying machine learning to various use cases. A primary use of machine learning in financial crime compliance is false positives reduction. 50% have RPA in place to automate routine processes. Perhaps not surprisingly, generative AI is already in use at 45% of organizations. For most, use of LLMs probably centers around employee use of search and copilot functions embedded in browsers and productivity software.

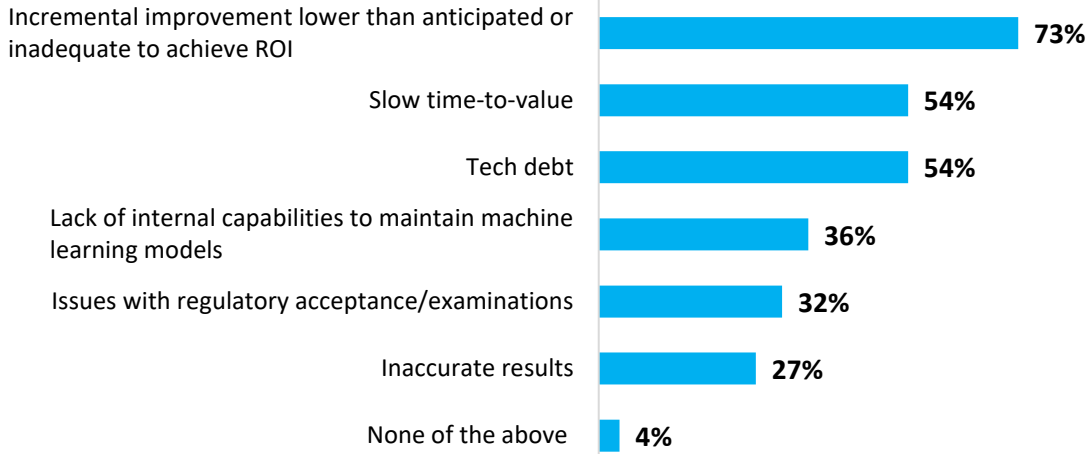
## ...but many are slow to realize value

Only 4% of banks and NBFIs report not experiencing any issues with their automation technology. Of the rest, 73% of firms are not getting a sufficient boost from their automation technology, while 54% are seeing delays in time-to-value. Technology debt is experienced at 54% of organizations. 36% lack the resources and expertise to maintain the machine learning models driving their automation technology. These commonly experienced challenges highlight the need to put in place fit-for-purpose technology and follow through on execution.

## Which technologies does your organization have in production for operational processes?



## Has your organization encountered any of the following issues with its current automation solutions?



# AS AI BECOMES TABLE STAKES FOR COMPLIANCE TECHNOLOGY, ORGANIZATIONS ARE RAMPING UP SPENDING

## Growing investments in AI/machine learning

Artificial intelligence technologies are becoming an essential capability for financial crime compliance technology.

86% of organizations will increase their spending on AI and machine learning over the next two years.

- 45% will increase AI spending significantly.
- None of the 110 firms in this study said spending on AI will decrease.

## Benefits of AI

AI can deliver enhanced, unique insights and achieve new levels of orchestration and automation of business processes.

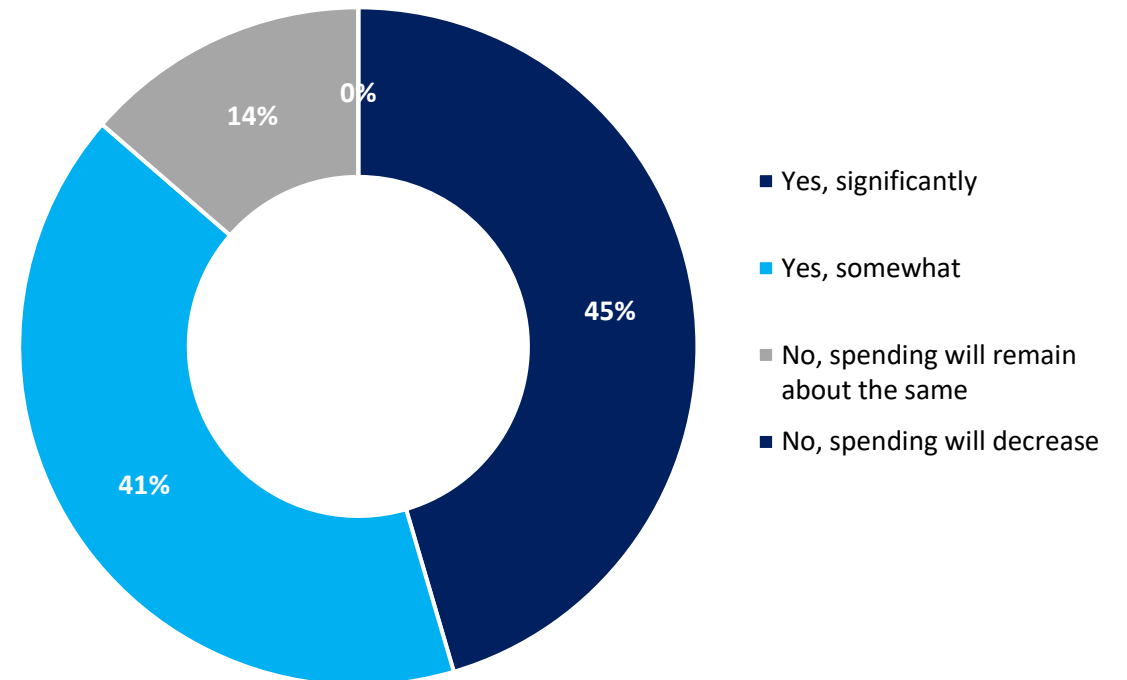
Relevant AI technologies include machine learning, natural language processing (NLP), and intelligent automation. Generative AI is an emerging technology that will inevitably be used to support numerous use cases.

Financial crime compliance solutions often use a combination of these techniques to achieve their results.

## Get educated on AI

For financial institutions seeking to leverage AI, it is important to understand the specific techniques and use cases supported by AI-enabled solutions, as well as to verify their effectiveness.

Will your organization increase its spending on AI/machine learning technology over the next 12 to 24 months?



# REGULATORY, STAFFING, AND SYSTEM DRIVERS FOR AUTOMATION TECHNOLOGY

Virtual workers are a form of intelligent automation, powered by AI and machine learning-enabled software robotics. In the compliance screening context, virtual workers can handle sophisticated workflows including adverse media monitoring and beneficial owner analysis, as well as more routine tasks such as identity verification.

### Drivers for adopting virtual workers

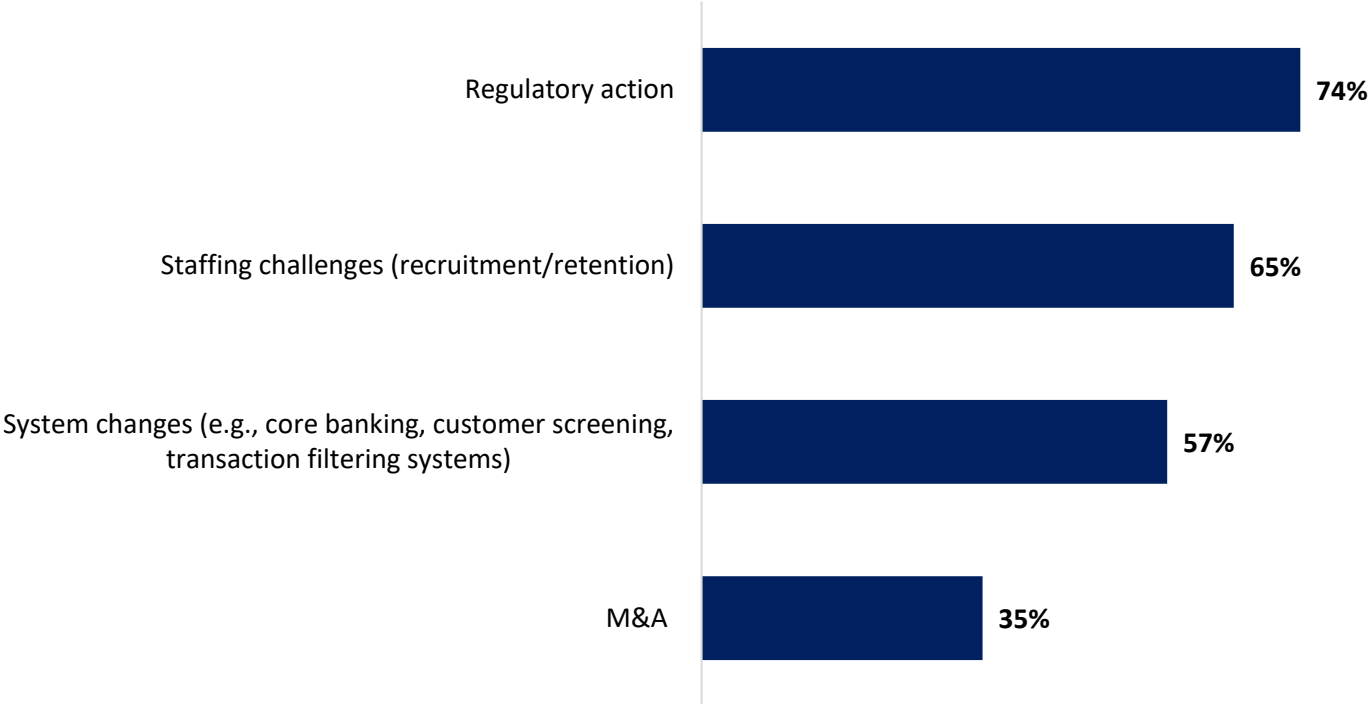
Regulatory action would motivate 75% of organizations to adopt virtual workers or similar advanced technology to improve compliance operations.

Following regulation, staffing challenges were cited by 65% of respondents as a compelling reason for automation technology.

57% said system changes could lead them to adopt virtual workers. For example, legacy screening systems typically have barebones alert decisioning features; adoption of a new screening system with case management would be an opportunity to apply virtual workers to automate workflows.

M&A was cited by 35% of respondents as a potential driver for automation technology to handle increased post-merger workloads.

What would be a primary driver to augment your compliance analyst team with virtual workers?





# 4

## **CONCLUSION: MANAGING SUPPLY AND DEMAND IN COMPLIANCE OPERATIONS**

# AUTOMATION TECHNOLOGY TO MITIGATE WORKFORCE CHALLENGES, SUPPORT CONSISTENCY, AND REDUCE RISK



## Supply and demand in compliance

Compliance workloads can be viewed in terms of supply (size of analyst teams) and demand (volume of alerts). Doubling down on employee management efforts helps maintain the supply of analysts needed to process alerts but leads to a reactive game of catch-up with alert volumes.

It is equally important to manage the demand side of the equation by reducing the number of alerts that require human intervention through enhanced analytics and machine-driven decisioning. Automation of investigative workflows is also key to reducing compliance workloads.

## Need for effective technology

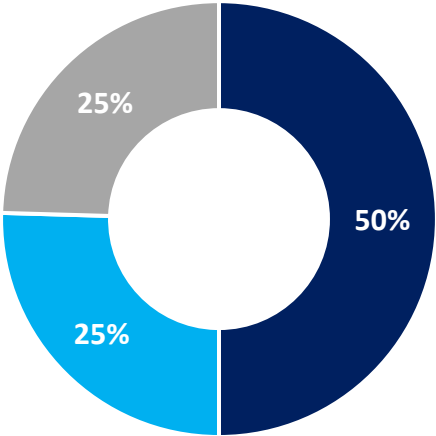
AI and intelligent automation are emerging as effective technology levers for achieving increased efficiencies and boosting productivity—making it easier for organizations to ensure their analyst teams can keep up with ever-increasing workloads.

As importantly, the automation technologies that enable increased efficiency also support greater standardization, accuracy, and consistency of compliance operations. This helps organizations adhere to compliance policies and reduce regulatory risk.

# ABOUT THE SURVEY

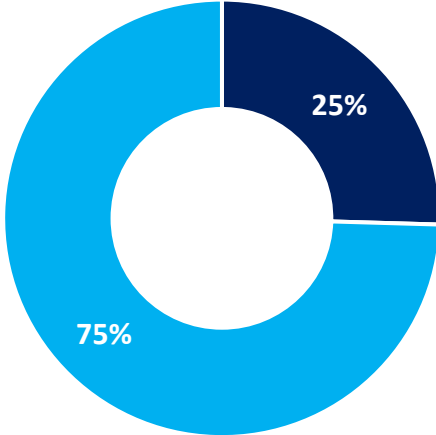
This survey on staffing issues and technology trends in financial crime compliance was designed by Celent and WorkFusion. The survey was fielded in July 2023. A total of 110 compliance, operations, risk, and IT professionals completed the survey. The distribution of survey respondents by location, type and size of institution, and respondent’s role is shown below.

**Global region**



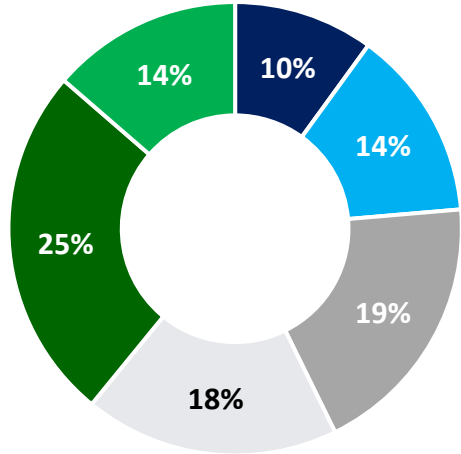
- Retail/corporate bank
- Savings institution/credit union
- Fintech, neobank or crypto business

**Institution type**



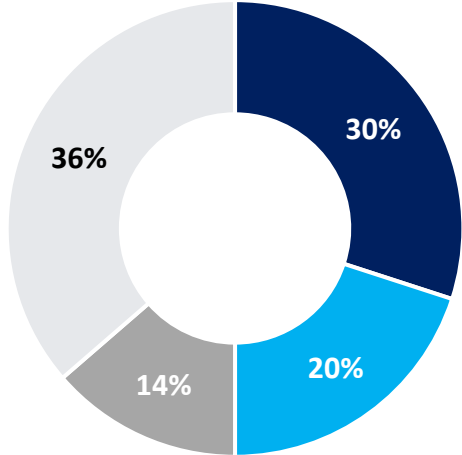
- Canada
- USA

**Asset size (Revenue size), USD**



- ≥\$500 bn (for nonbanks: ≥\$5 bn)
- \$250–499.9 bn (for nonbanks: \$2.5–4.9 bn)
- \$100–249.9 bn (for nonbanks: \$1–2.4 bn)
- \$50–99.9 bn (for nonbanks: \$500–999 mn)
- \$10–49.9 bn (for nonbanks: \$100–499 mn)
- \$5–9.9 bn (for nonbanks: \$50–99 mn)

**Area of responsibility**



- Compliance / Financial Crimes
- Operations
- Operational Risk
- IT

Source: Celent/WorkFusion Financial Crime Compliance Survey  
N = 110

# ABOUT WORKFUSION



**WorkFusion** is the creator of AI Digital Workers purpose-built for banking and financial services organizations. Its Digital Workers are true knowledge workers that effectively augment the workforce in functions like anti-money laundering (AML), sanctions screening, Know Your Customer (KYC), and customer service. WorkFusion's solutions automate work to help solve talent shortages, increase team capacity, save money, enhance employee and customer satisfaction, and ensure ongoing compliance.

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- [Technology Trends Previsory: Risk, 2023 Edition](#)
- [Credit Risk Management in Banking: Playing Defense and Offense for the Next Normal](#)
- [Inflexion Point in Financial Crime Compliance](#)



## Regtech – AI – Cloud

- [Remaking Risk: A Taxonomy of Regtech](#)
- [Transforming AML Investigation with AI: Righting the Automation Imbalance in Compliance Operations](#)
- [Demystifying Cloud in Operational Risk Management](#)
- [Supporting Financial Services Innovation on the Public Cloud: Risk Management and Compliance Edition](#)



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- [Asia-Pacific IT Priorities: One Year After the Pandemic](#)



## Vendor Landscape

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- [NextGen Balance Sheet Management and ALM: Vendor ABCD](#)
- [SAS: Integrating Risk Solutions to Manage Market Volatility](#)
- [A New Platform for Operational Risk: ORX's IDP](#)



## Model Risk Manager Case Studies

- [HSBC: Cloud-Based Financial Crime Detection at Scale](#)
- [CIBC: Centralized AI and ML Cloud Platform](#)
- [VP Bank: Reducing Op Risk Through Automation](#)
- [Innovation in Risk: A Snapshot Through the Lens of Model Risk Manager 2022](#)

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