

# **Report on the application of generative AI in financial services in AIFC**

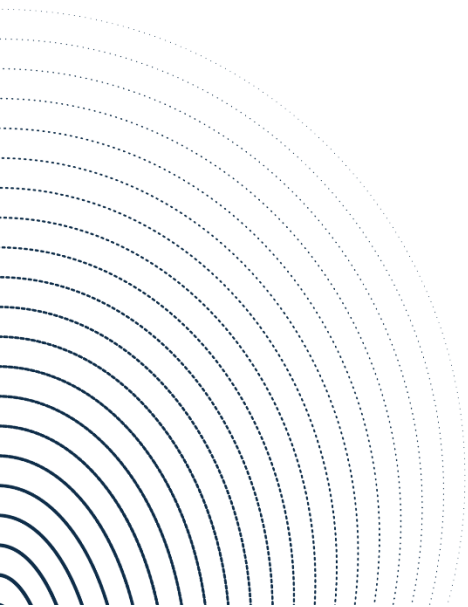
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## Executive summary

The role of financial innovation and technology has always been important to the development of the financial industry. The artificial intelligence (“AI”) has been actively used in the financial sector for many years, e.g., for transaction monitoring to identify financial crime, for chatbots in customer service, and for machine learning to analyse big data.

To identify the level of implementation of AI systems by Authorised Persons and the AIFC financial system's exposure to AI, the Astana Financial Services Authority (“AFSA”) launched an AI Survey in 2025 involving all Authorised Persons.

Under the AI Survey in 2025, the AFSA received 42 responses from Authorised Persons. Importantly, 45% of respondents use AI, including instances where such “tools” are provided by third-party service providers. The AI Survey findings are provided in Part 2 of this Report.

### Other main findings of the AI Survey:

- Survey results indicate that while 64% of Authorised Persons remain in the early research stage, only 5% have reached full-scale AI implementation. This demonstrates that industry interest remains stronger than widespread operational deployment.
- AI adoption is concentrated in lower-stakes areas, such as customer communication and marketing, rather than in core financial systems like algorithmic trading or credit underwriting.
- The dominance of third-party AI solutions (38%), with only 5% of firms developing AI in-house. Third-party solutions refer to AI tools or services developed and provided by external organisations, rather than by the firm itself.
- The prevailing majority either plan or is considering the use of AI, while only 26% of respondents have no plans.
- Cybersecurity and data privacy are the most critical AI threats.
- Productivity, data analytics, and operational efficiency (e.g., automation of internal processes) are the primary AI benefits.
- Key barriers to adoption: AI is not a top priority due to organisational focus or scale, safety, data privacy, and governance.
- Controls measures are concentrated on data protection and third-party risk management.

AFSA will continue to monitor AI adoption by Authorised Persons through surveys and testing outcomes and will engage with the industry as needed to determine whether further guidance or measures are necessary to ensure safe and sound AI use in financial services.

## Part 1. Introduction

The report holds strategic relevance in alignment with AFSA's strategy for 2025, which focuses on supporting markets and innovation. The key goal of the report is to understand and assess the extent to which Authorised Persons providing financial services use generative and other AI systems in their activities, and, following that, identify the level of exposure the AIFC financial services industry faces to the risks arising from the use of AI.

The role of financial innovation and technology has always been important to the development of the financial industry. The AI has been actively used in the financial sector for many years, e.g., for transaction monitoring to identify financial crime, using chatbots for customer service, and using machine learning for analysing of big data.

The Acting Law of AIFC does not define the term AI. Therefore, for the purposes of this Report, the term "AI" is defined broadly based on the approach to the definition used by OECD<sup>1</sup> (Organisation for Economic Co-operation and Development) and EU AI Act,<sup>2</sup> (the European Union's legislative framework for artificial intelligence systems), as:

***"An AI system is a machine-based system that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments. Different AI systems vary in their levels of autonomy and adaptiveness after deployment".***

The release of OpenAI's ChatGPT in November 2022, followed by similar solutions from Google, Anthropic, xAI, and Meta, marked significant progress in generative AI. These tools can generate human-like content across text, audio, images, and video, impacting sectors such as finance. Adoption is fueled by potential operational and process efficiencies, though these innovations also introduce new risks that require ongoing assessment and appropriate risk mitigation.

To identify the level of implementation of AI systems by Authorised Persons in the AIFC and the AIFC financial system exposure to AI, AFSA launched in 2025 an AI Survey involving all Authorised Persons<sup>3</sup>. Survey included 15 specific questions on AI, with the aim of understanding:

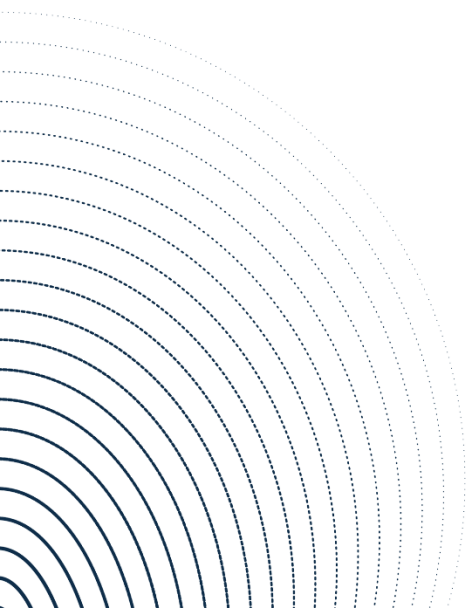
- whether Authorised Persons use AI;
- plans to use AI;
- risks and benefits in the adoption of AI;
- barriers to the use of AI; and
- measures implemented to address risks associated with AI use.

<sup>1</sup> OECD AI Principles Overview, available at <https://oecd.ai/en/ai-principles>.

<sup>2</sup> Art. 3(1) Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act)

<sup>3</sup> In accordance with AIFC Glossary Authorised Person means either an Authorised Firm or an Authorised Market Institution.

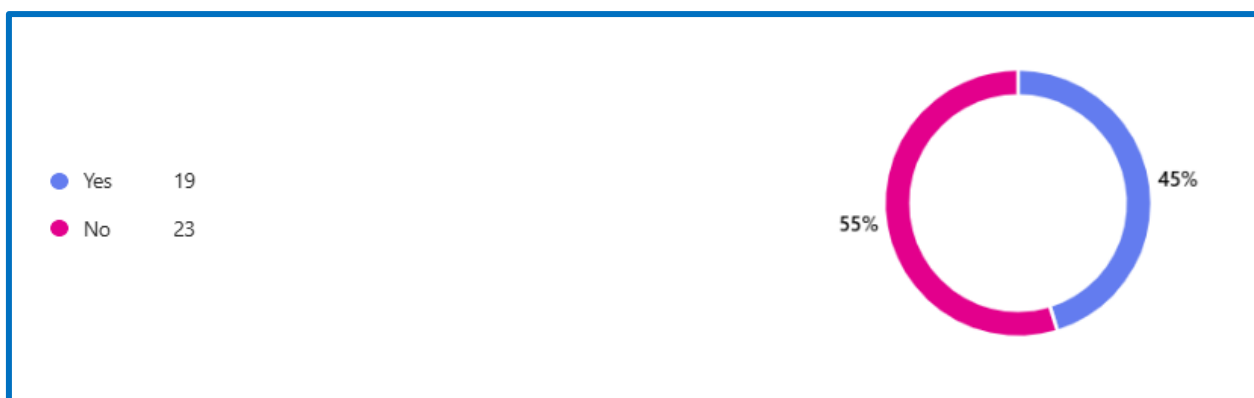
In the 2025 AI Survey, the AFSA received 42 responses from Authorised Persons. It is important to note that some AIFC Participants previously took part in a related survey conducted by the NBK in 2024, which covered similar thematic areas. The key findings from AFSA's 2025 survey are provided in Part 2 of this Report. Importantly, 45% of respondents use AI, including instances where such "tools" are provided by third-party service providers. The AI Survey findings are provided in Part 2 of this Report.



## Part 2. AI Survey findings

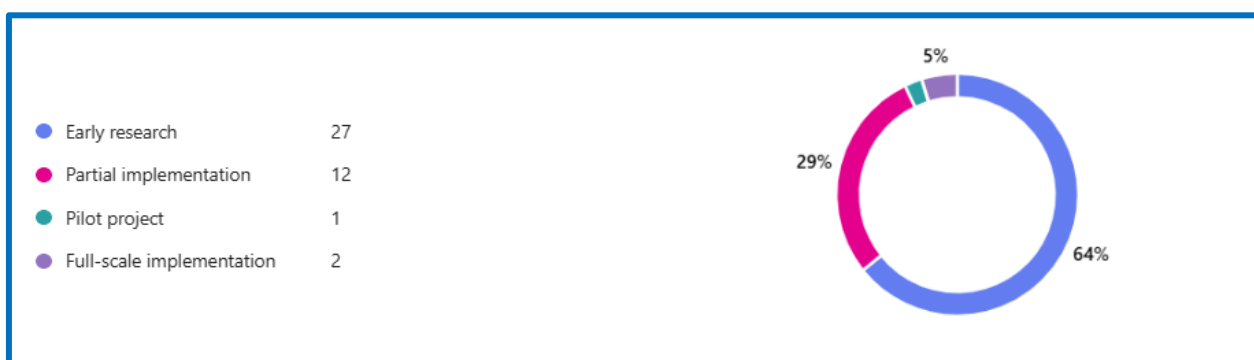
### *AI use cases by AIFC authorised firms*

1. Is your firm currently using AI in any capacity? (Note that the use of AI by third-party service providers, their services would be considered as used by AIFC Authorised Persons, e.g. blockchain analytic tool, ID verification, liveness and biometric authentication tools provided by third-party service providers)



The data indicates a transitional phase in technology adoption: 45% of firms actively use AI, while 55% do not.

2. What is the stage of AI adoption/use in your firm?



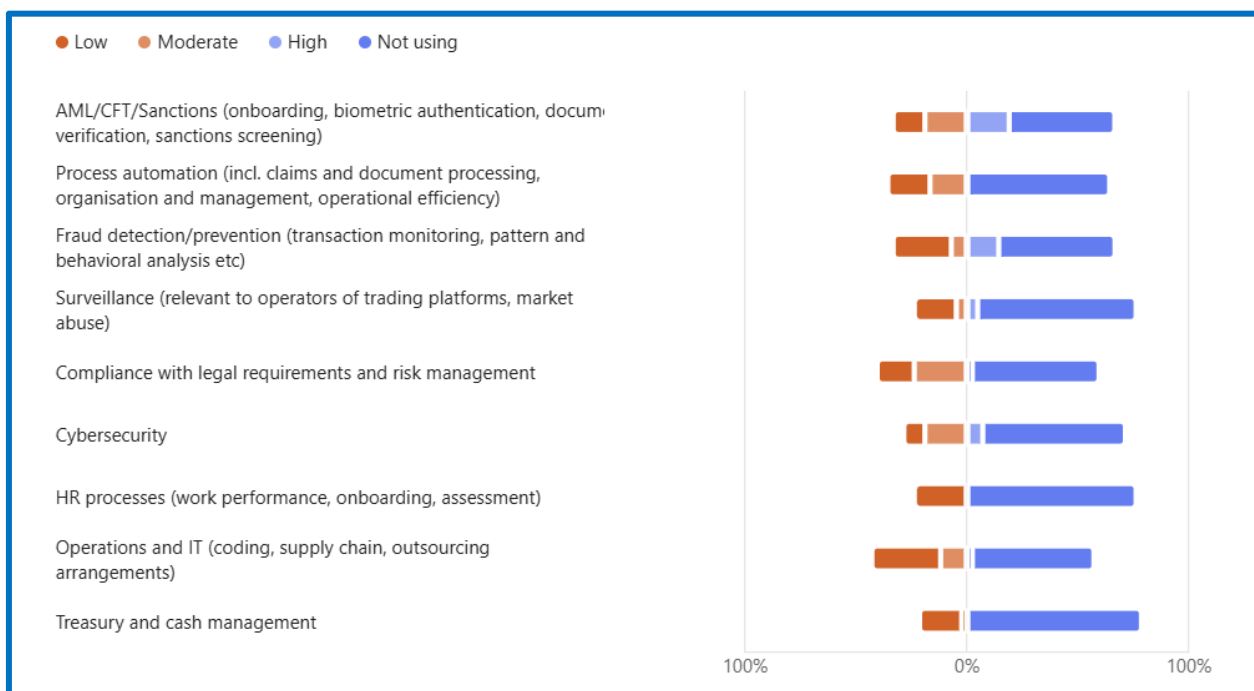
The data indicates that AI adoption is still in the early phases. While 64% of firms are in the research stage, just 5% report full implementation. This reflects a measured approach as firms assess opportunities and challenges before broad operational adoption.

3. Which AI applications do you have overall for products/services or business-related activities? What is the materiality of such products/services/business-related activities and AI systems to the operations of a firm?



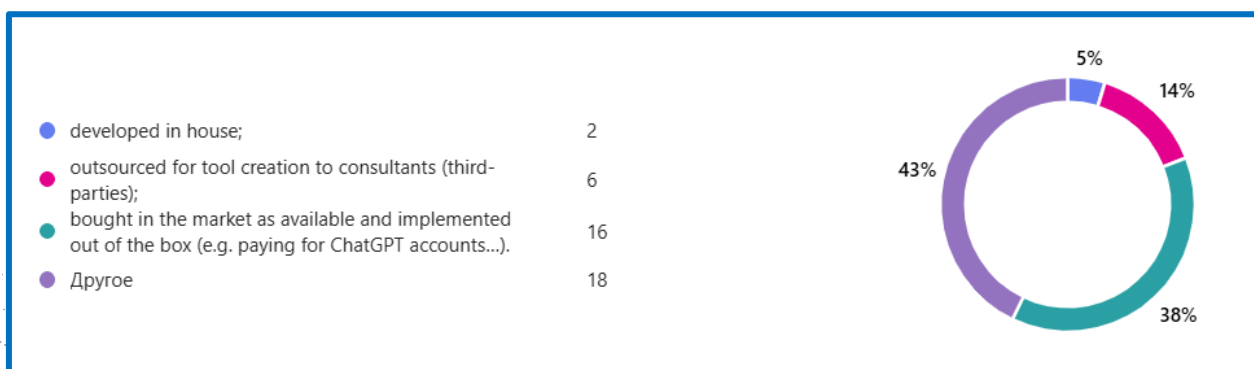
The data reveals a distinctly conservative strategy, with AI adoption concentrated in lower-stakes, peripheral functions like customer communication and marketing rather than in core financial engines like algorithmic trading or credit underwriting. The overwhelming dominance of the “Not using” category across all sectors confirms that widespread integration remains distant. Furthermore, the scarcity of “High” materiality ratings indicates that firms are currently prioritising operational safety and low-risk experimentation over deep, structural algorithmic integration.

4. Which AI applications overall do you have for operational/compliance functions? What is the materiality of such operational/compliance functions and AI systems to the operations of a firm?



The findings illustrate a strategic preference for deploying AI as a high-stakes defensive shield in regulatory environments. Unlike general business activities, compliance-heavy functions such as AML/Sanctions screening and Fraud detection show distinct “High” materiality ratings, suggesting that firms are beginning to trust algorithms with complex, data-intensive risk management. Conversely, areas like “Operations and IT” reveal widespread but predominantly “Low” materiality usage, pointing to a trend of superficial assistance, such as basic coding copilots or document processing, rather than the deep, mission-critical reliance emerging in the financial crime prevention sectors.

5. Are the AI solutions in your firm being:

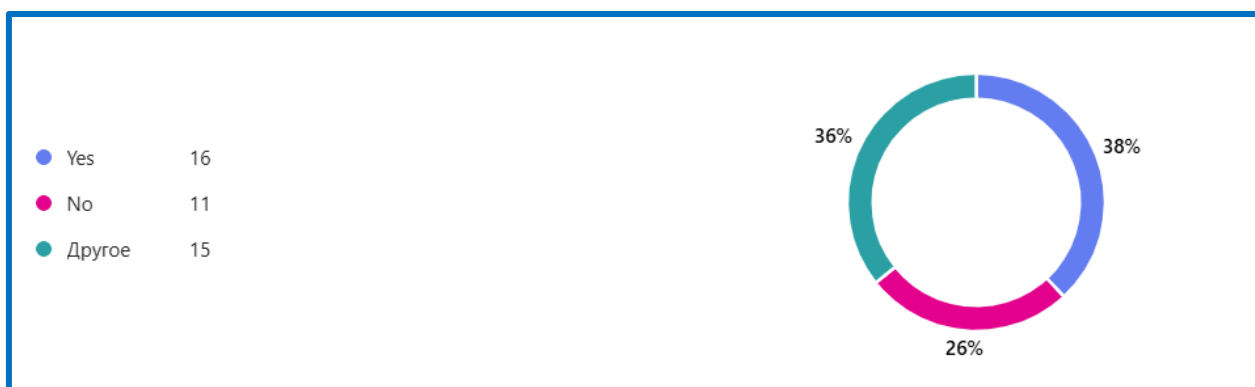


The findings expose a distinct “buy over build” mentality, with only 5% of firms developing AI in-house. The dominance of third-party solutions (38%) signals that the industry currently treats AI as a commoditised utility, like ChatGPT subscriptions, rather than a strategic technology that requires bespoke internal engineering. The “Other” includes responses of non-implementation of AI.



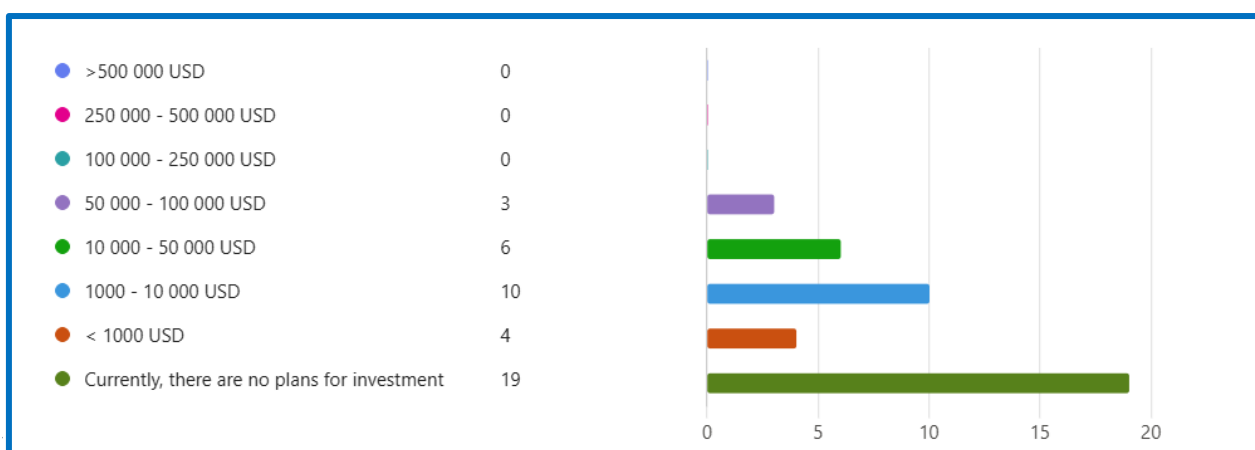
## *Plans to use AI by Authorised Persons*

6. If your firm does not use AI, are you planning to implement AI systems in 2026?



38% of respondents plan to implement AI in 2026. Analysis of responses of “other” shows that they are not resisting the technology, they are either already using it or navigating the “how to” phase of deployment. (20% of this subgroup explicitly state they already possess AI capabilities, while another 60% express positive intent through strategic phrasing like “planning” or “probably”). Therefore, “Yes” and “Other” responses show general trend for either clear plans of adoption or consideration of such use, while only 26 % of respondents have no plans at all.

7. What is your intended investment in AI for 2026? (including tools of third-party providers)



The largest segment of respondents reports no planned investment, totalling 19 firms. Among those allocating funds, spending is heavily skewed toward lower tiers, primarily between \$1,000 and \$10,000. Notably, no respondents intend to exceed \$100,000, establishing a distinct financial ceiling on projected AI expenditure for 2026.

## 8. What are the areas your firm plans to use AI?



Projected AI adoption is heavily concentrated in regulatory compliance and risk management, specifically for AML screening and fraud detection. While customer-facing applications also exhibit significant interest, there is negligible planned integration for core financial trading or credit underwriting, indicating a prioritisation of operational oversight over automated capital management.

## Risks and benefits in AI adoption

9. Please rate the following risks or drivers of risk in the context of AI systems applications. *(with 1 being the lowest risk and 5 being the greatest risk)*



Respondents identify cybersecurity, data privacy, fraud/money laundering and data risk as the most critical threats, underscoring a primary focus on operational security. In contrast, systemic issues like market volatility and concentration risk received the lowest ratings.

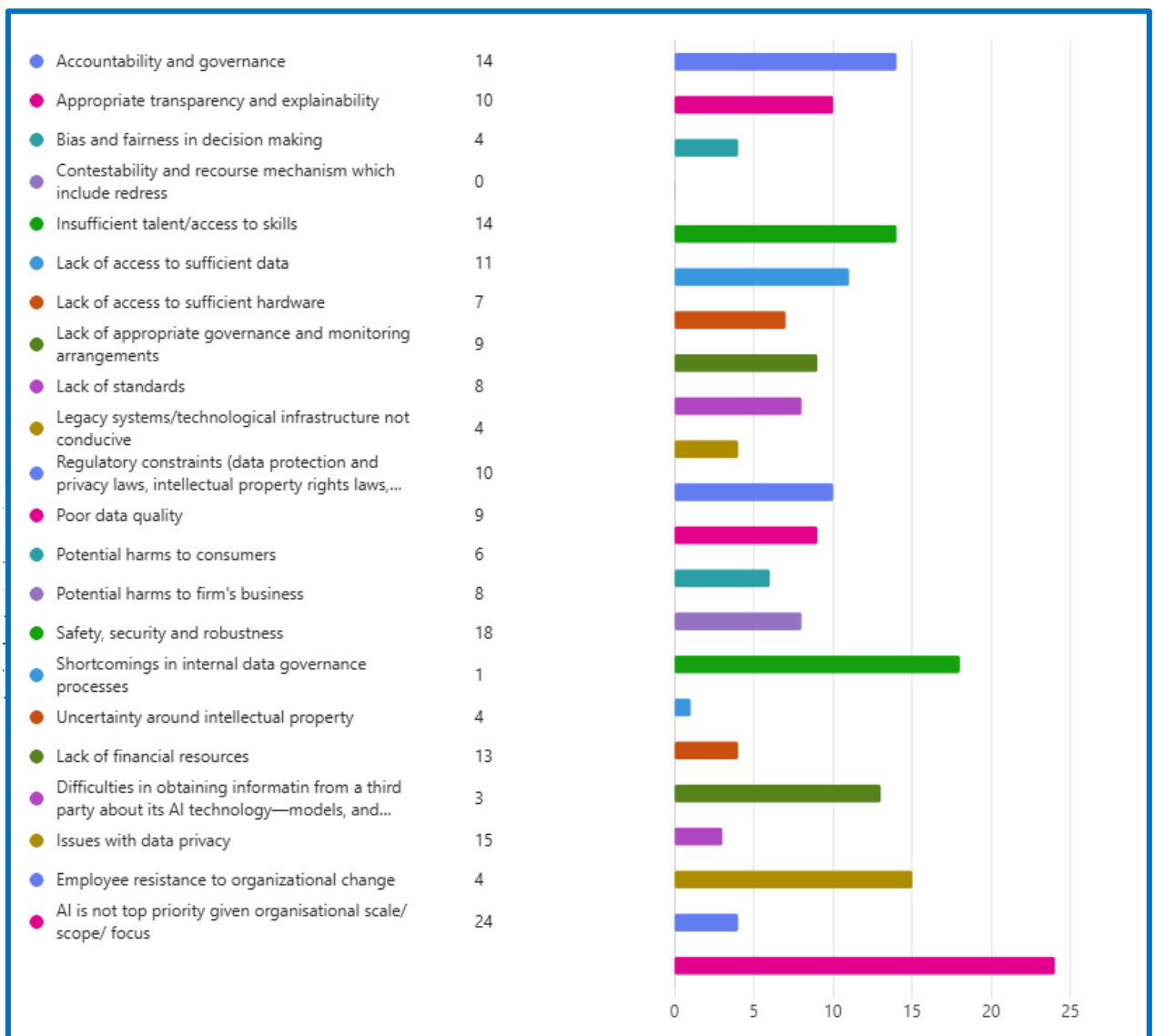
10. To what extent are or could AI systems be beneficial for your firm in the following areas? (with 1 being the lowest benefit and 5 being the greatest benefit)



Respondents overwhelmingly identify productivity, data analytics, and operational efficiency (e.g. automation of internal processes) as the primary drivers of AI value, prioritising general process optimisation. In contrast, core risk management functions, specifically market, credit, and traded risk, received the lowest benefit ratings.

## Barriers in use of AI

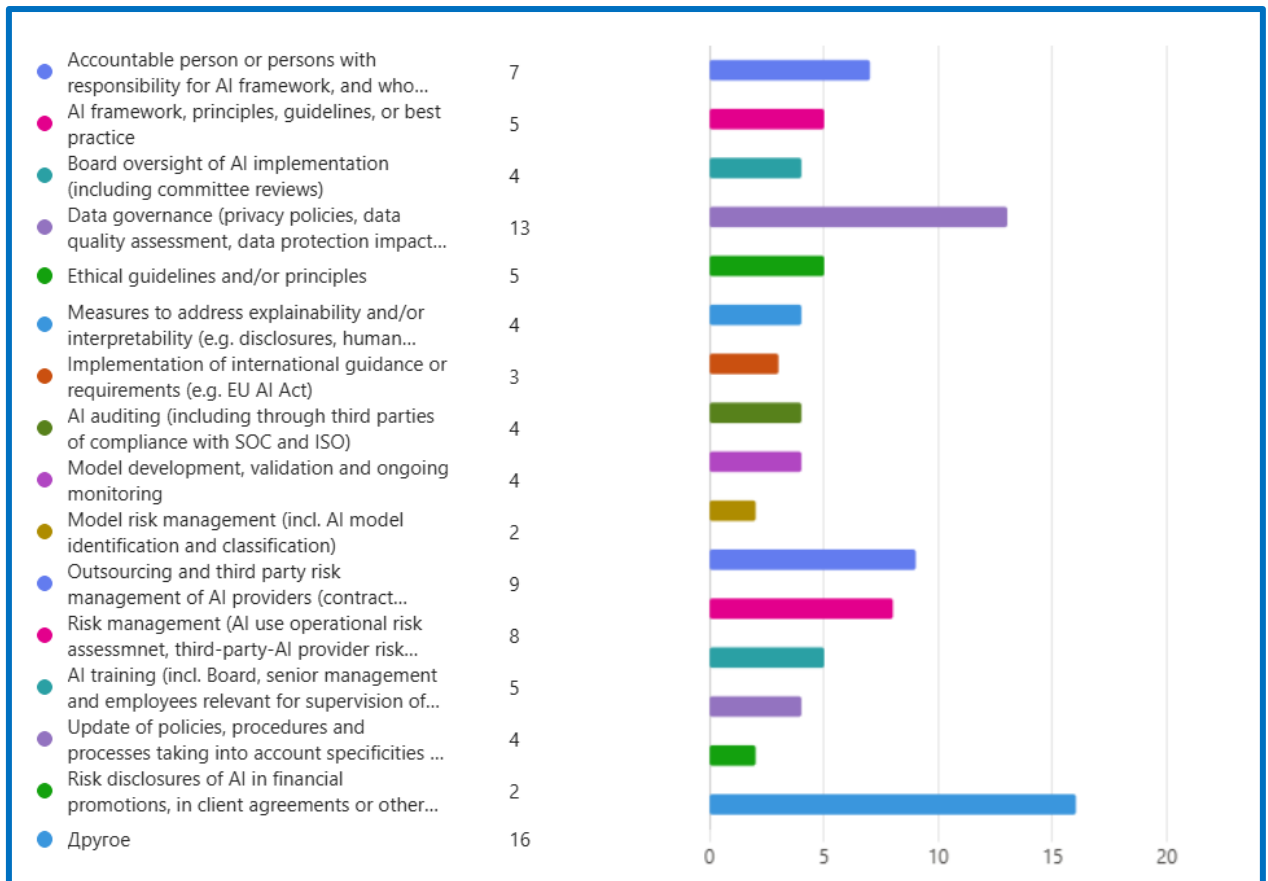
### 11. What constraints are there to the deployment and use of AI in your firm?



The majority of firms cite AI as not a top priority, with organisational focus or scale as the leading constraint. Operational concerns regarding safety, data privacy, and governance significantly outweigh technical or financial barriers, indicating that adoption is stalled by risk aversion and business relevance rather than capability shortages.

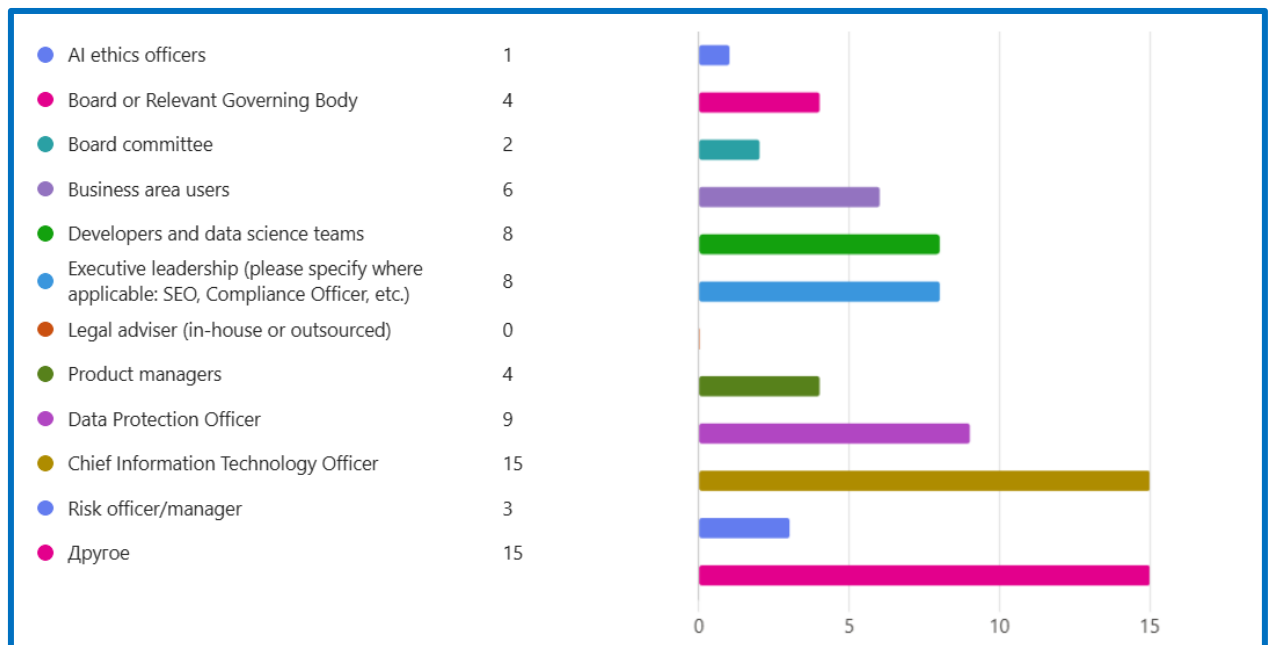
## Measures by Authorised Persons to mitigate risks from the use of AI

12. Which of the following governance frameworks, controls and/or processes specific to AI systems applications does your firm have?



Governance and controls measures are concentrated on data protection and third-party risk management, reflecting a focus on operational compliance rather than specific AI oversight. Conversely, high-level controls such as board supervision and dedicated model risk management are only minimally implemented, suggesting that strategic institutional frameworks for AI remain largely immature. Notably, the majority of “Other” responses mainly represent those respondents which do not use AI.

### 13. Which of the following have accountability/responsibility for AI systems applications and their outputs in your firm?



Responsibility for AI is overwhelmingly siloed within technical roles, led mainly by Chief Information Technology Officers. The marginal involvement of Risk Officers and Board bodies contrasts sharply with this technical dominance, indicating that firms currently treat AI accountability as an IT maintenance function rather than a strategic enterprise governance mandate. Notably, the majority of “Other” responses mainly represent those respondents who do not use AI.

### 14. What type of disclosures are there for customer-facing AI applications in your firm? For example, do you disclose that the application/product uses AI?

Review of responses shows that transparency practices currently prioritise legal compliance over direct user engagement. Among the minority of firms operating customer-facing AI, disclosures are predominantly embedded within Terms of Service or Privacy Policies regarding third-party vendors (typically for identity verification), rather than offering explicit, real-time notifications via the user interface.

### 15. Have there been any customer complaints about services provided by your firm via AI-enabled tools?

The majority of respondents said there were no complaints, while others said no AI was implemented.

## Conclusion

The 2025 AI Survey provides a clear snapshot of the current state of AI adoption among Authorised Persons in the AIFC. The findings reveal an industry in a transitional phase, characterised by growing interest and cautious, risk-aware implementation.

The AI Survey indicates a significant increase in AI engagement, with 45% of respondents now using AI in some capacity. However, adoption remains largely nascent. The majority of firms (64%) are in the exploratory or research stage, with only 5% having achieved full-scale implementation. This underscores that while strategic interest is strong, widespread operational integration into core financial activities is yet to be realised.

Current applications are strategically conservative, predominantly focused on areas with lower immediate financial risk, such as customer communication, marketing, and operational efficiency. In contrast, the deployment of AI in high-stakes, core financial functions like algorithmic trading or credit underwriting is minimal. Notably, a significant shift is observed in compliance and risk management, where AI tools for AML screening and fraud detection are increasingly being entrusted with higher-stakes tasks, indicating growing confidence in AI's role as a defensive, analytical tool.

The industry's approach is heavily reliant on third-party solutions, with a distinct "buy over build" mentality. This suggests that AI is currently viewed more as an operational utility than a proprietary strategic asset. The primary drivers for adoption are clear: enhanced productivity, data analytics, and improved operational efficiency. Conversely, the main barriers are not technological or financial but relate to organisational priorities, governance concerns, and acute risk awareness, particularly regarding cybersecurity and data privacy.

Governance frameworks are evolving. Accountability for AI systems is predominantly siloed within technical IT functions, with oversight from dedicated risk management or board bodies. This highlights a critical area for maturation as AI applications become more material to business operations.

In the light of these findings, AFSA will continue to monitor AI adoption by Authorised Persons, including by conducting additional AI Surveys (among others by focusing on regulatory aspects of AI implementation in finance) and reviewing results of testing of AI solutions in the AIFC FinTech Lab or results of implementing of AI by Authorised Persons under full authorisation and supervisory regime. Based on these activities, AFSA will engage with the industry to discuss and consider the potential necessity for additional measures to ensure the safe, sound adoption and use of AI in financial services.