



# Crypto-assets Management Survey

3<sup>rd</sup> edition

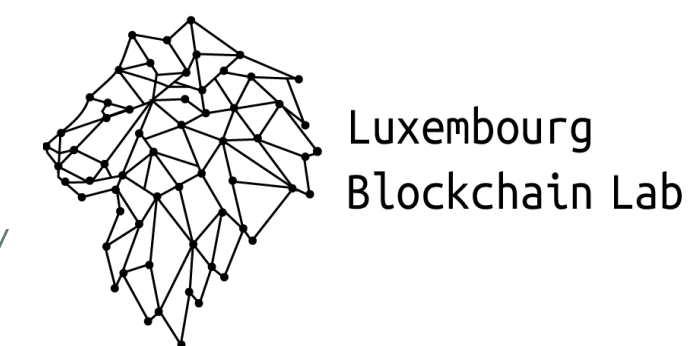
From exploration to integration



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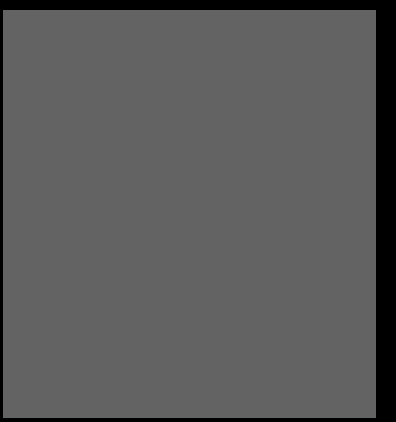
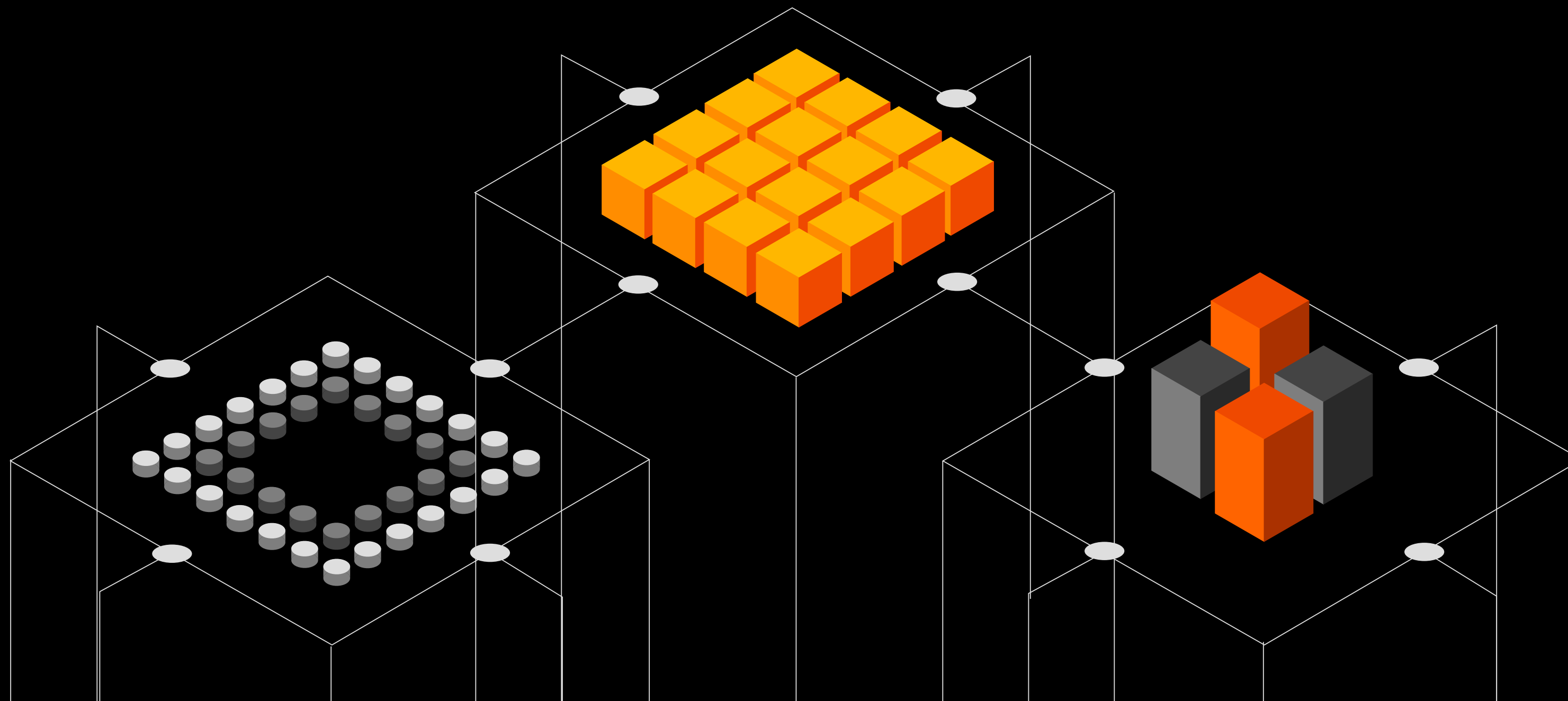
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# Foreword

Crypto-assets are no longer on the margins of financial discourse—they are entering the mainstream. This third edition of the Crypto-assets Management Survey reflects the accelerating maturity of the sector. What was once viewed as experimental is increasingly recognised as foundational to the future of asset management and financial infrastructure. The data shows a market in motion: more confident, more coherent, and more integrated.

Market sentiment has strengthened. Adoption trajectories are steepening, and institutional interest is deepening. We are seeing clearer regulatory frameworks, rising client demand, and the development of sophisticated infrastructure to support meaningful engagement with digital assets. Luxembourg, in this context, is well-placed to lead.

Luxembourg's financial sector is built on substance—cross-border expertise, pragmatic regulation, and operational excellence. These attributes are just as relevant in the world of tokenisation and decentralised finance as they are in traditional fund services. As experts featured in this report note, Luxembourg already offers the essential conditions for innovation:

regulatory clarity, strong governance, and a financial community ready to evolve.

The implementation of the EU's MiCA regulation has given further momentum to institutional adoption across Europe. This survey reveals that a growing number of firms in Luxembourg are now preparing to offer or already delivering crypto-asset solutions. These moves are being made not out of obligation, but from a strategic recognition of long-term opportunity. Clients increasingly expect access to digital assets, and firms are responding with products that meet both regulatory standards and investor needs.

Perhaps most encouragingly, Luxembourg is being recognised as more than a participant in this shift. There is growing international acknowledgment of the country's potential to serve as a regulated hub for crypto-assets and tokenised securities. Indeed, Luxembourg's progressive Blockchain laws are helping to drive interest in Luxembourg as THE centre for tokenisation. The building blocks are in place. Now is the moment to scale.

At the LHoFT, our mission is to ensure that Luxembourg remains at the forefront of financial innovation. That means supporting firms through this transition—sharing knowledge, connecting stakeholders, and helping shape policy that enables growth while safeguarding stability. This report is a valuable contribution to that effort, and I would like to extend sincere thanks to our trusted collaborators at ALFI and ABL, and to our survey partner, PwC, whose insights and commitment have been essential in bringing this edition to life.

The direction of travel is clear. The next chapter of financial services will be digital, decentralised, and data-driven. Luxembourg has both the ambition and the infrastructure to thrive in this new world of finance.

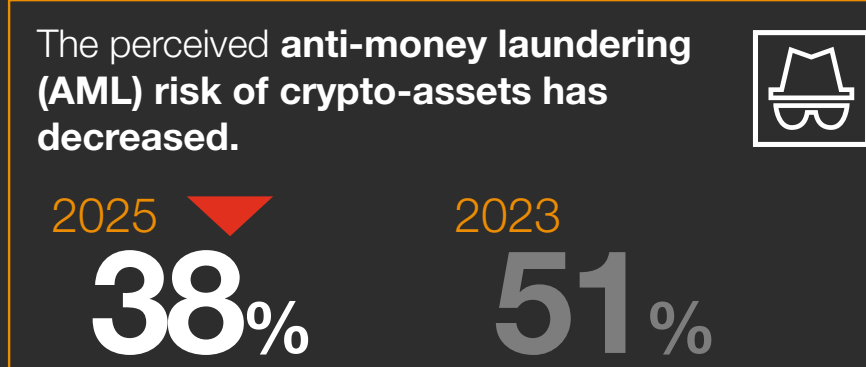
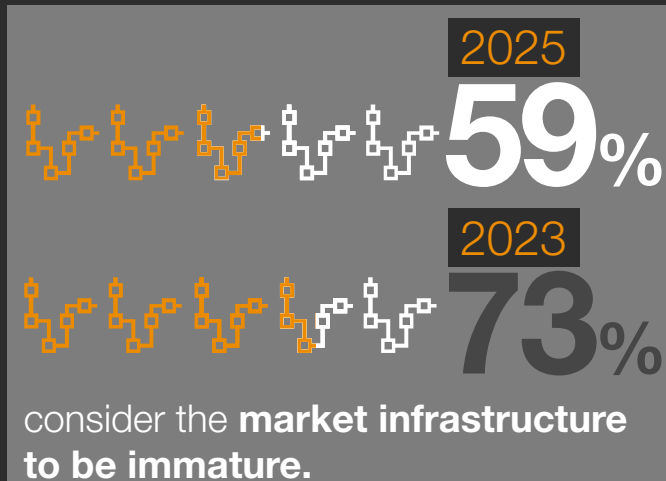
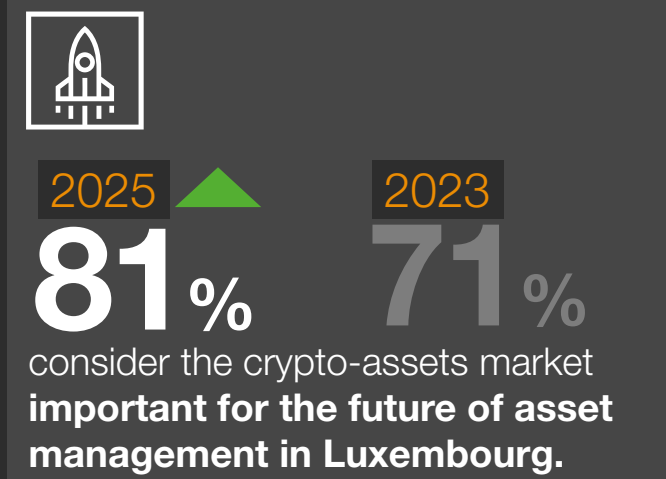
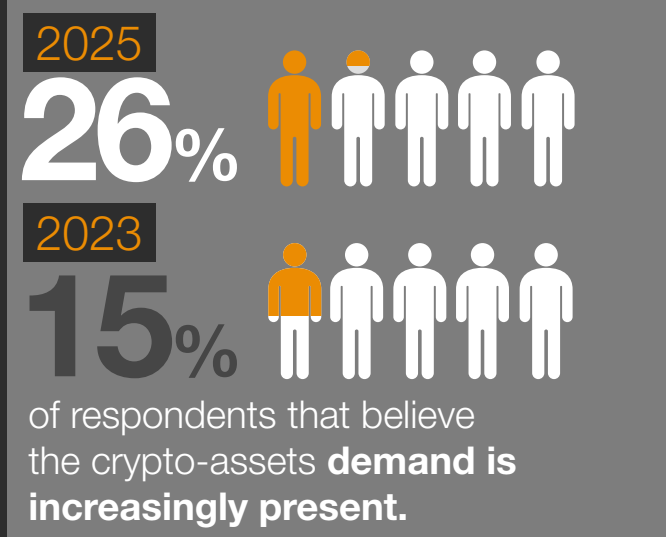
**Nasir Zubairi**

CEO, LHoFT Foundation



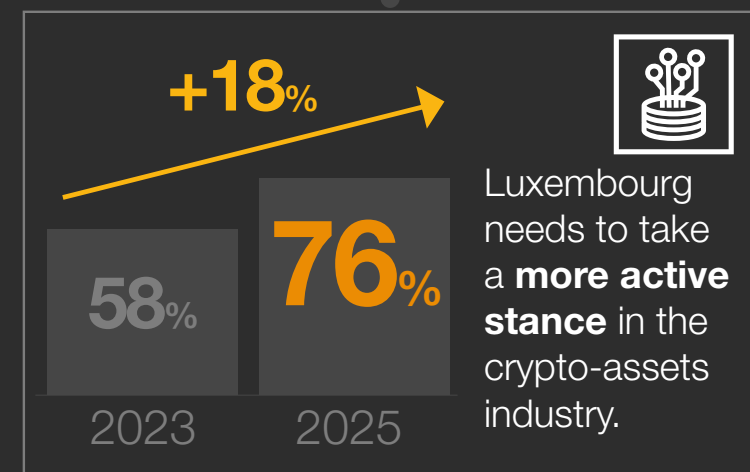
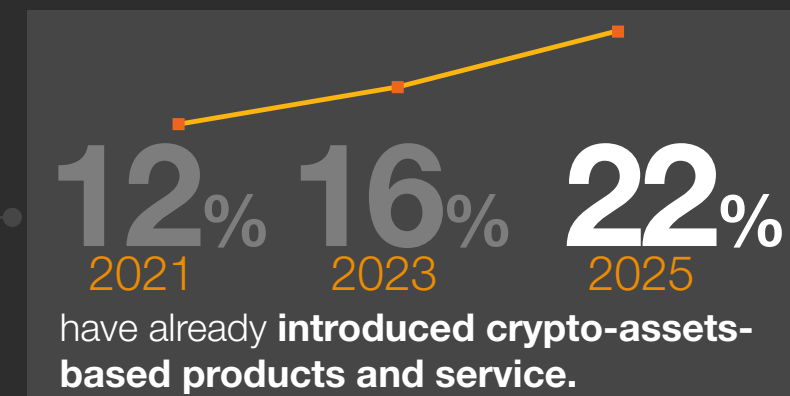
# Introduction

## The global crypto market is gaining momentum toward mainstream adoption

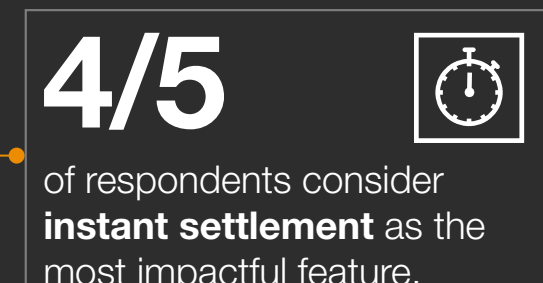


While the US remain the leading market for crypto-assets, **Luxembourg is emerging as a key player in this space.**

- Top risks to crypto-assets growth in the short time:
1. regulatory uncertainty
  2. reputational damage
  3. lack of institutional adoption



The primary challenge remains the **absence of standardised token types.**



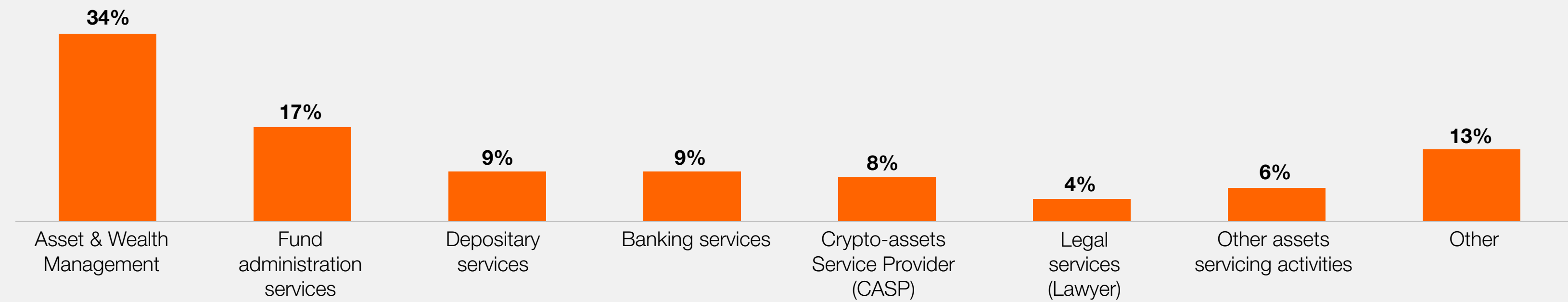
## Methodology and sample

This year's edition of the survey was conducted between 7 January to 31 January 2025, gathering insights from 128 respondents across the asset management, asset servicing and broader financial services industries in Luxembourg.

The survey sample includes respondents engaged in various primary business activities. Asset Management, encompassing both traditional and alternative investments, accounts for 34% of participants, followed by Fund Administration services at 17%. This edition also expanded its scope to include two new business areas: Banking Services and Crypto-Assets Service Providers (CASPs) representing 9% and 8% of respondents respectively (cf. Exhibit 1).

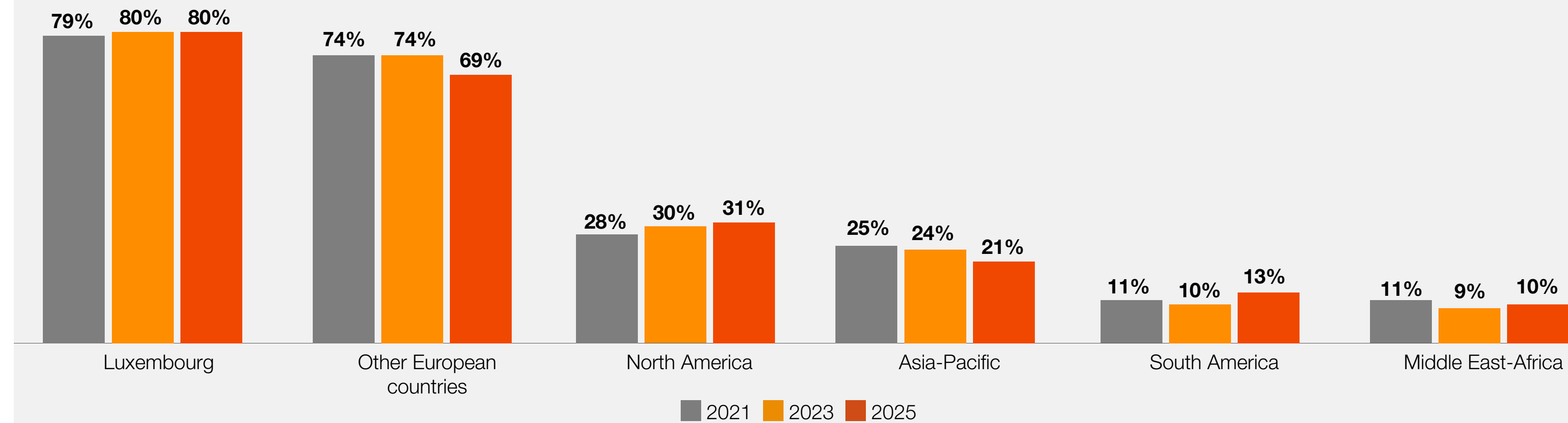
The Grand Duchy remains the primary area of interest, with 80% of respondents identifying it as their major geographical focus. However, other European countries also play a significant role, according to 69% of respondents. Beyond Europe, 31% consider North America their major geographical focus, while 21% look to Asia-Pacific. To maintain consistency and comparability with previous editions, the survey exclusively targeted Luxembourg-based entities, ensuring a consistent sample distribution (cf. Exhibit 2).

**Exhibit 1.** What is your primary business activity?



Note: the percentage may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre

**Exhibit 2.** Which of the following areas represents your major geographical focus?

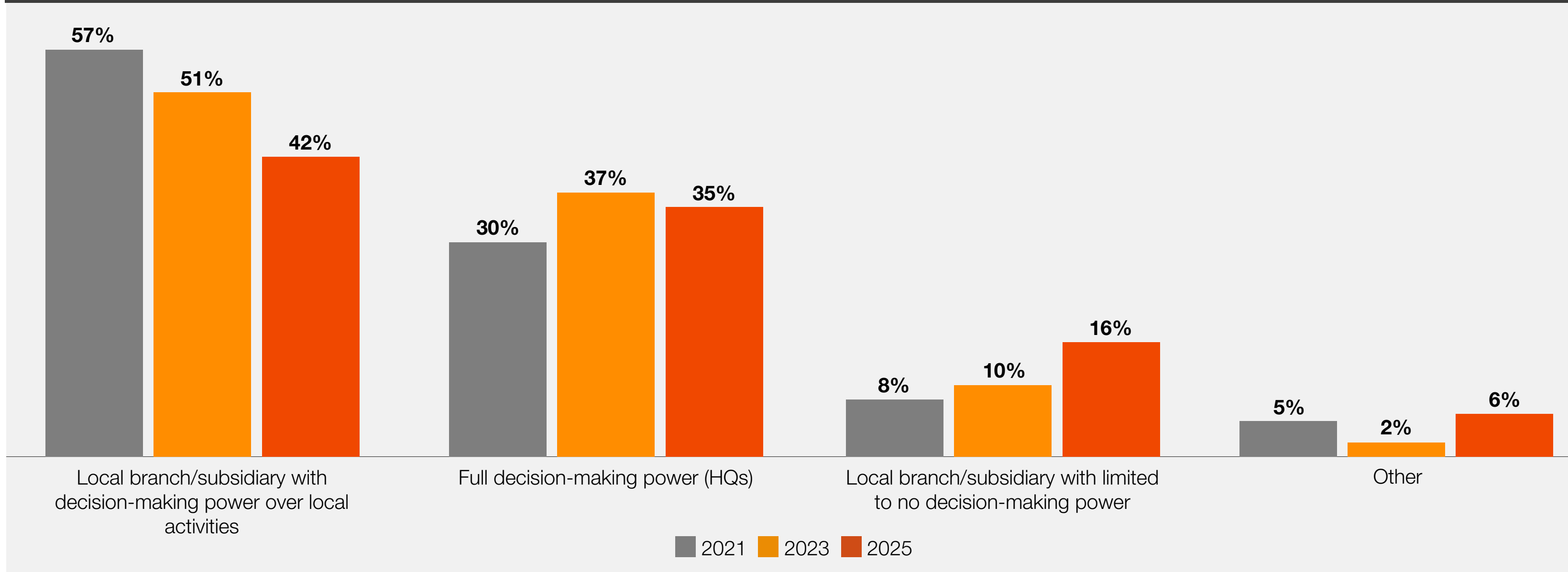


Note: multiple choice question.  
Source: PwC Global AWM & ESG Research Centre

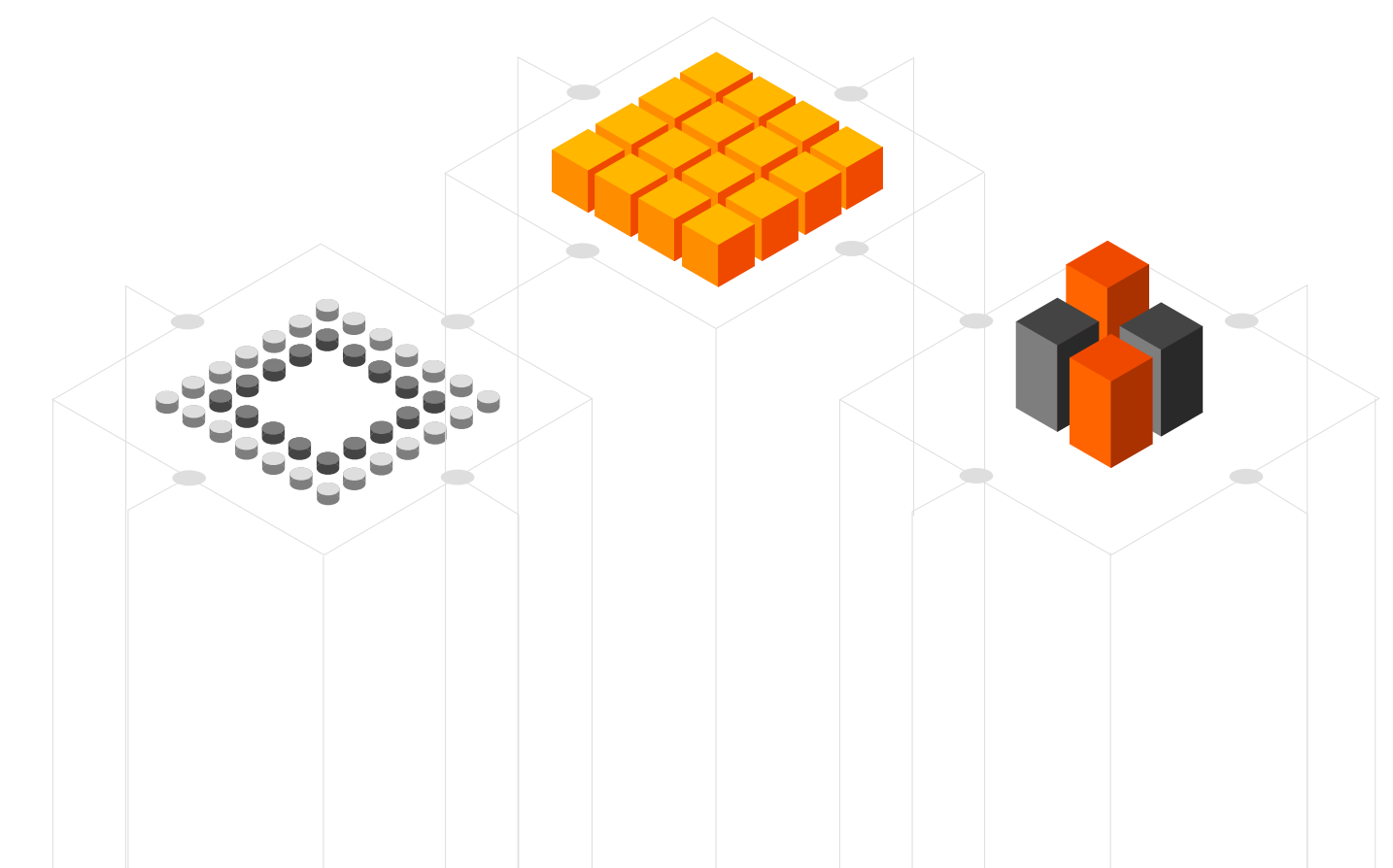
Regarding the decision-making structure, the survey results indicate a shift among the entities represented in the sample. 42% of respondents indicated that their Luxembourg entity operates as a local branch or subsidiary with decision-making power over local activities, reflecting a decrease of 9% compared to 2023 and 15% compared to 2021. In line with the previous edition, more than one-third reported that their entity holds full decision-making authority serving as the firm's headquarters. Additionally, the share of local branches or subsidiaries with limited or no decision-making power has grown over the years, doubling to 16% in 2025 from 8% in 2021. (cf. Exhibit 3).

Over half of the respondents reported having at least 50 full-time employees, while approximately a quarter manage or oversee assets exceeding EUR 200bn. Overall, the composition of the sample is consistent with that of the previous survey editions, ensuring a reliable basis for comparison across all three editions.

**Exhibit 3.** What level of decision-making power does your Luxembourg entity have?

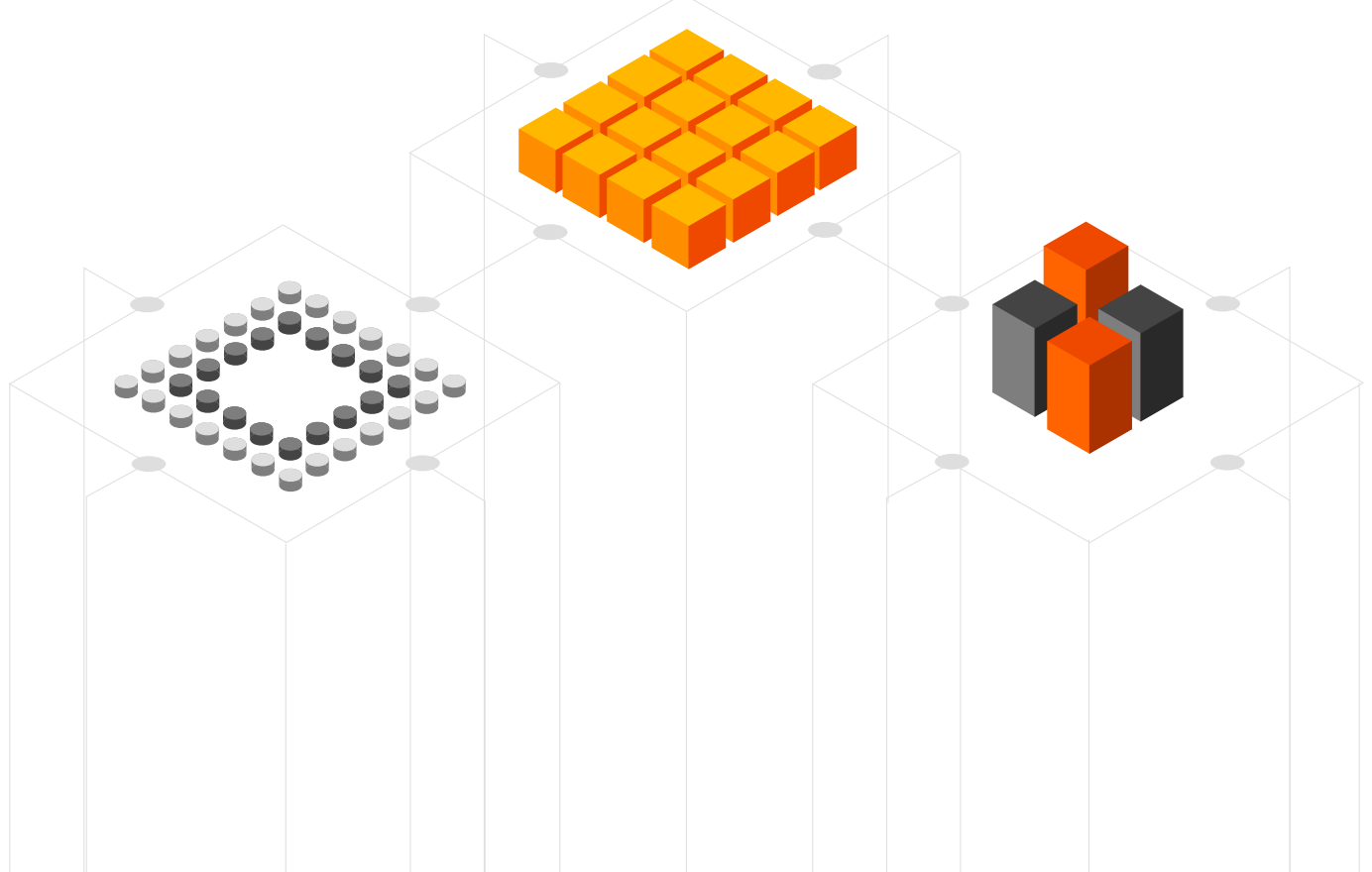


Note: the percentages may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre



## Notable developments since Q1 2024

The second edition of our Crypto-assets Management Survey was conducted during a period marked by significant challenges for the crypto-assets industry. Since then, the sector has evolved rapidly, driven by regulatory advancements, technological innovations, and shifting market trends. While these developments have opened up numerous opportunities for stakeholders, they also introduced obstacles that require careful adoption and strategic planning. The following timeline offers an overview of the key events that have reshaped the industry since the first quarter of 2024:



### January 2024

The SEC approved the first spot Bitcoin exchange-traded funds (ETFs), following a ruling by the US District of Columbia Court of Appeals in August 2023 that determined the SEC had wrongfully rejected Grayscale Investments' application for a Bitcoin-tracking ETF.

### April 2024

- Bitcoin experienced its fourth halving event, which reduced the mining reward from 6.25 to 3.13 bitcoins per block. This event resulted in a decrease in the rate at which new bitcoins are introduced to the market, thereby tightening the overall supply.
- Changpeng Zhao, the founder of Binance, was sentenced to four months in prison after admitting guilt to charges of violating US money laundering laws. This conviction marked a major legal blow to Binance, the largest cryptocurrency exchange globally.

### July 2024

- **4 July 2024:** the European Banking Authority (EBA) released new guidelines concerning the "travel rule". This rule mandates the inclusion of specific information with transfers of funds and certain crypto-assets to enhance the detection and prevention of money laundering and terrorist financing in transactions involving crypto-assets.
- **31 July 2024:** the US Senate introduced the Bitcoin Act, which seeks to create a Strategic Bitcoin Reserve to ensure transparent management of the federal government's Bitcoin holdings. The bill outlines plans to acquire and store up to 1 million bitcoins over a five-year period.

### December 2024

- Bitcoin soared to a record high, surpassing USD 100,000, driven by investor optimism that Donald Trump's election as US president would lead to a more favourable regulatory environment for cryptocurrencies.
- **30 December 2024:** the European Union (EU) officially adopted the Markets in Crypto-Assets (MiCA) regulation, establishing a harmonised framework to enhance investor protection, promote financial stability, and ensure market integrity across Member States.

### January 2025

Following the inauguration of President Trump, who promised to be the first 'crypto president,' the SEC launched a crypto task force to develop a regulatory framework for the crypto market. Additionally, President Trump issued an executive order on digital assets, establishing a working group of key regulatory agencies to recommend clearer policies and identify areas where new laws were needed.

# Luxembourg's perspective on the crypto-assets market



Compared to the previous survey in 2023, the outlook on the global crypto-assets market has undergone a notable transformation with a more optimistic and confident outlook. In this edition, 50% of industry stakeholders in Luxembourg view the global crypto-assets market as progressing towards broader mainstream adoption, believing that the industry has reached an inflection point. This marks a significant shift compared to the previous edition, where only 33% held this

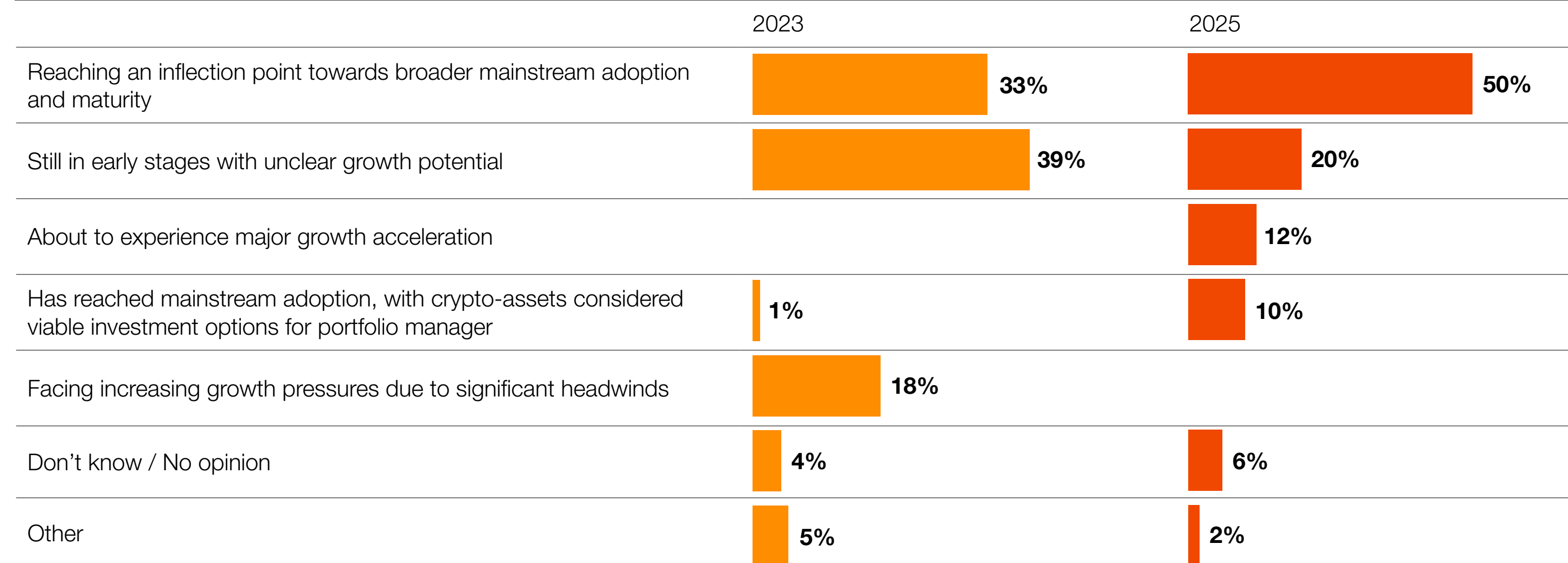
view. This growing optimism reflects increased confidence in the role of crypto-assets within the broader financial ecosystem. As a result, the percentage of respondents who consider the market to be in its early stages with uncertain growth potential has dropped to 20%, down from 39% in 2023. Furthermore, a new response option was included in this year's questionnaire, with 12% of participants indicating they expect significant growth acceleration in the near future (cf. Exhibit 4).



The crypto-asset market is at an exciting inflection point. Traditional institutions are accelerating their entry into the industry, which is underpinning capital investments from new market participants.”

**Denzel Walters**, Head of Luxembourg for B2C2

**Exhibit 4.** How would you assess the current global crypto-assets market?



Notes: in this edition, the option "Facing increasing growth pressure due to significant headwinds" was not included. In the 2023 survey, the option "About to explore major growth acceleration" was not included. The percentages may not add up to 100% due to rounding.

Source: PwC Global AWM & ESG Research Centre

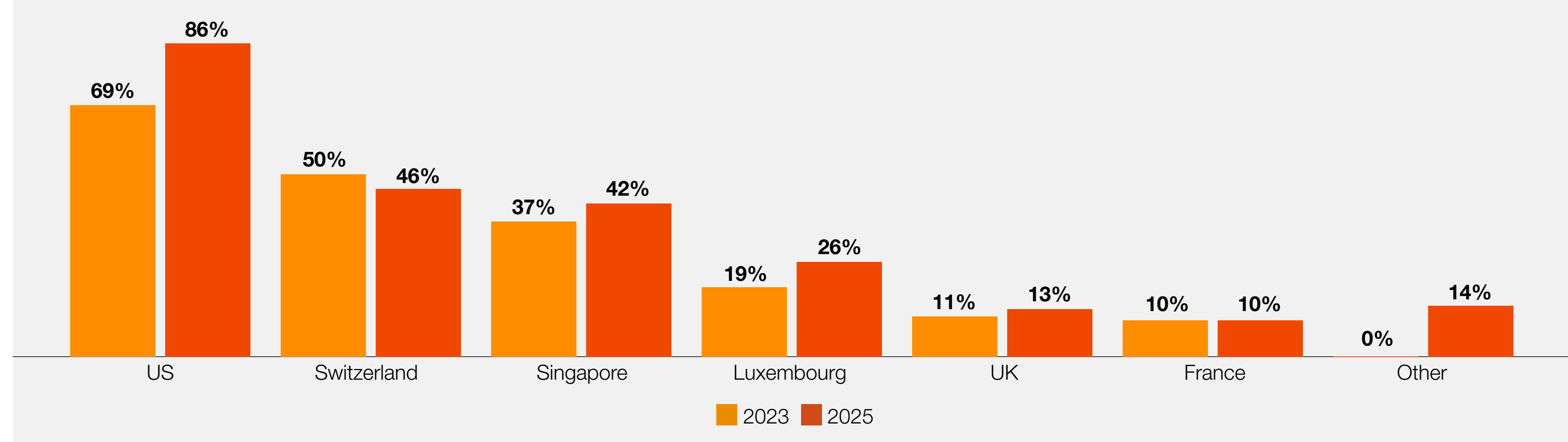
# 01

Luxembourg is gaining recognition as an emerging hub in the crypto-assets space, with 26% of respondents highlighting its growing role, up from 19% in 2023. Meanwhile, the United States (US) continues to lead the global crypto-assets market, with 86% identifying it as the top country, representing a notable increase of 20% compared to the previous edition. Switzerland and Singapore follow in the rankings, recognised by 46% and 42% of respondents, respectively. Interestingly, Singapore appears to be closing the gap with Switzerland compared to 2023 (cf. Exhibit 5).

The Grand Duchy's crypto-assets market continues to evolve, strengthening its position within the broader European financial market. In this edition, 39% of respondents view the country's development as aligned with the European average, a result consistent with the 2023 edition. At the same time, 25% consider Luxembourg to be in line with leading financial centres in the region, reflecting a slight decline from 28% in the previous edition.

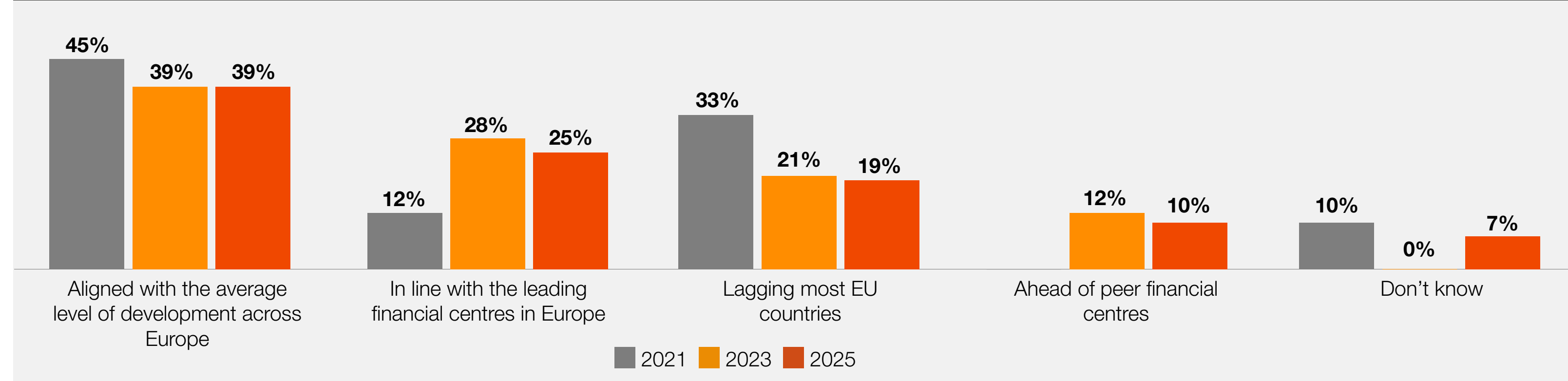
Additionally, the percentage of respondents who view Luxembourg as lagging behind most EU countries has continued to decline, reaching 19% this year. This represents a significant improvement from 33% in 2021, possibly indicating growing confidence in the country. Despite the progress made since the first edition, a lot still needs to be done to reinforce Luxembourg's position as a competitive hub for crypto-assets. This is evident from the slight decrease in respondents who believe the country is ahead of its peer financial centres (cf. Exhibit 6).

**Exhibit 5.** Which countries/areas do you consider as leading in the crypto-assets space?



Note: respondents selected up to 3 options.  
Source: PwC Global AWM & ESG Research Centre

**Exhibit 6.** How do you rate the level of maturity\* of the crypto-assets market in Luxembourg?



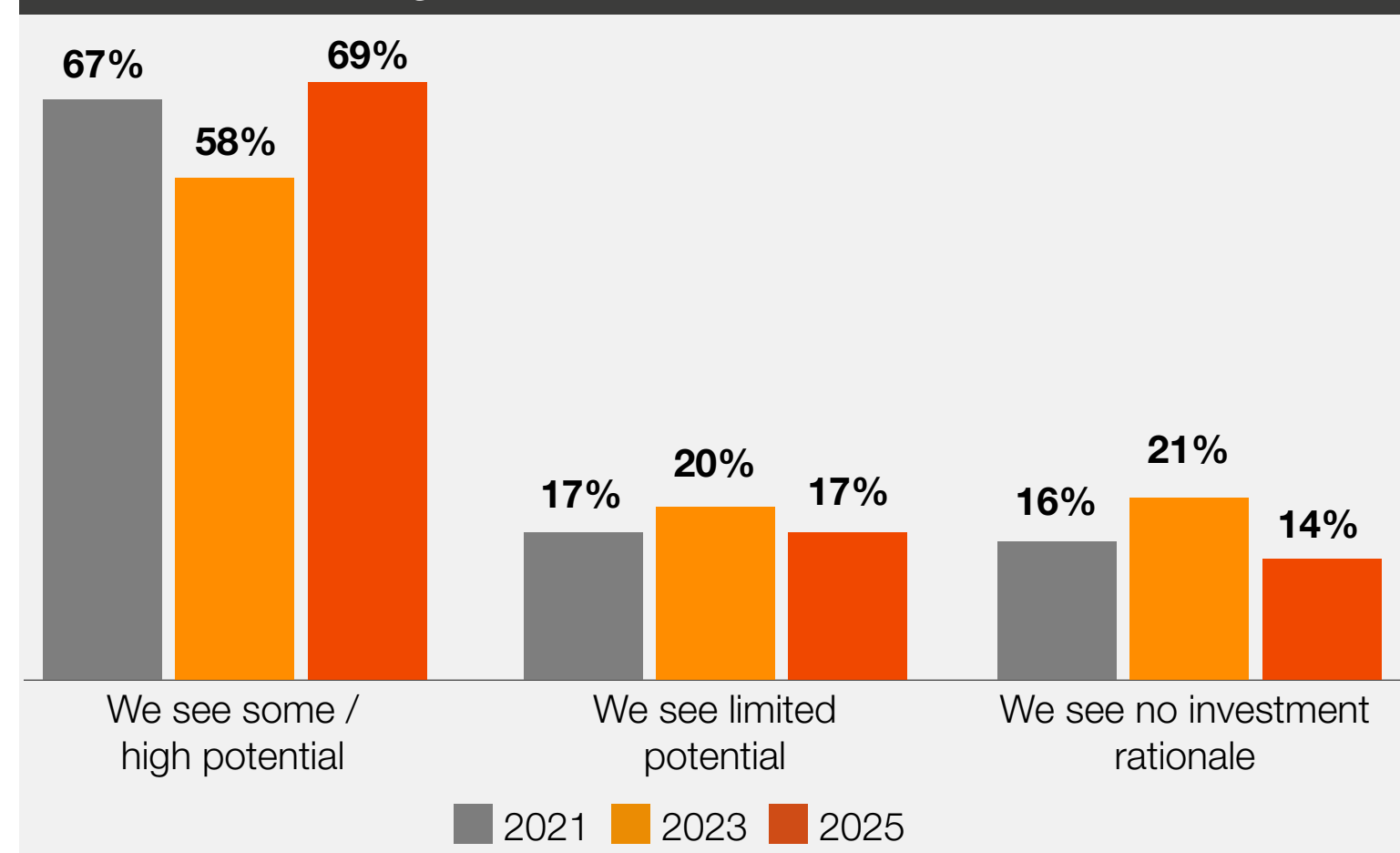
Notes: \*maturity indicators include the current state of supply and demand, regulatory developments and clarity, depth and breadth of the ecosystem, and overall country strategy. In the 2021 survey, the option "Ahead of peer financial centres" was not included. The percentages may not add up to 100% due to rounding.

Source: PwC Global AWM & ESG Research Centre

Shifting the focus to investment strategy, optimism surrounding crypto-assets has notably increased since the previous edition. In this year's survey, confidence in crypto-assets reached 69%, a slight rise from 67% in 2021, indicating a growing belief in their long-term potential. This shift contrasts with the decline observed in 2023, where the perception of their potential dropped to 58%, due to the high level of volatility and uncertainty that characterised the period of 2022 and 2023.

Additionally, perspectives on limited potential and the lack of investment rationale, which saw a slight increase in 2023, are now back to 2021 levels. Overall, the results reflect a more balanced sentiment toward crypto-assets, with increased optimism and a return to previous trends, suggesting that the market is moving towards a more measured and steadier outlook for the future (cf. Exhibit 7).

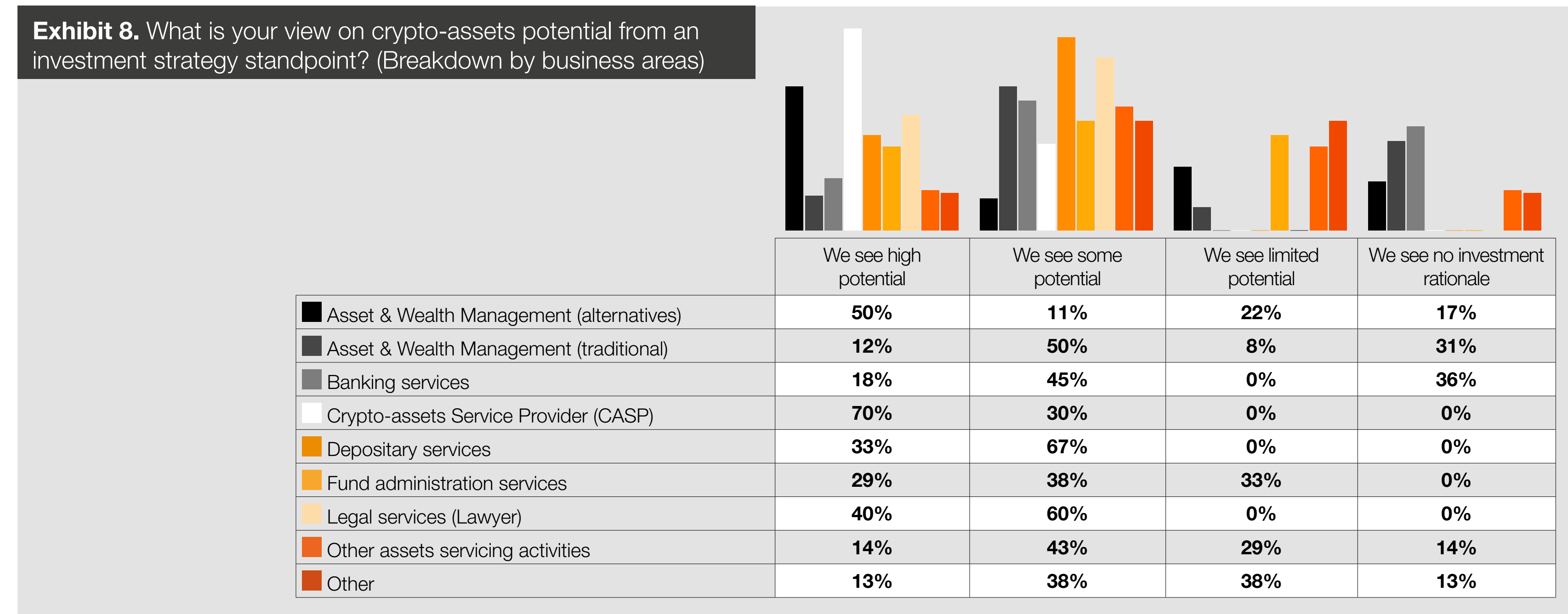
**Exhibit 7.** What is your view on crypto-assets potential from an investment strategy standpoint?



Note: the percentages may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre

A closer look at the findings reveals a significant variation in how different business areas perceive crypto-assets as an investment opportunity. As expected, CASPs exhibit the highest confidence, with 70% of respondents seeing high potential. Similarly, legal services and depositary services also demonstrate a strong belief in the investment prospects of crypto-assets, with 40% and 33%, respectively. Notably, half of the asset and wealth management respondents operating in the alternative universe recognise the significant potential of crypto-assets as an investment plan. This could be attributed to the fact that such assets offer innovative opportunities while meeting the increasing demand in the market.

**Exhibit 8.** What is your view on crypto-assets potential from an investment strategy standpoint? (Breakdown by business areas)



Note: the percentages may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre

In contrast, traditional asset and wealth management firms remain more cautious, with only 12% seeing high potential, although 50% acknowledge some potential. Banking services show a mixed sentiment, with 45% identifying some potential and 36% stating there is no clear investment rationale.

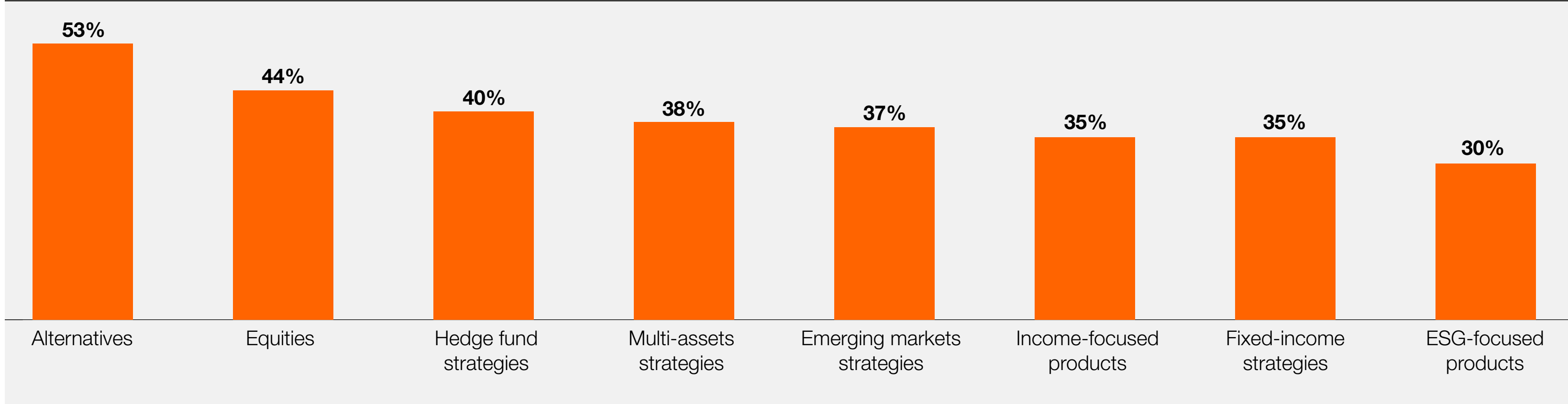
Overall, the data suggests that while some sectors are optimistic about the future role of crypto-assets, others—especially traditional financial institutions—remain cautious. The reason behind this could be the need for further regulatory clarity and market maturity before fully integrating crypto-assets into their investment strategies (cf. Exhibit 8).

When comparing the perceived market potential of crypto-assets with other investment products, alternatives emerge as the strongest competitor, with 53% of respondents considering it higher/much higher potential than crypto-assets. It appears that all other investment products are perceived as lower potential than crypto-assets. Indeed equities follow closely at 44%, while hedge fund strategies (40%), and multi-asset strategies (38%)

also rank highly, reflecting the growing credibility of crypto-assets within the broader investment landscape (cf. Exhibit 9). Beyond the absolute potential perspective, the diversification benefits shall also be consider though correlation level between crypto-assets and other asset classes.

New question

**Exhibit 9.** How does the market potential for crypto-assets compare to other areas of customer demand for investment products and strategies?



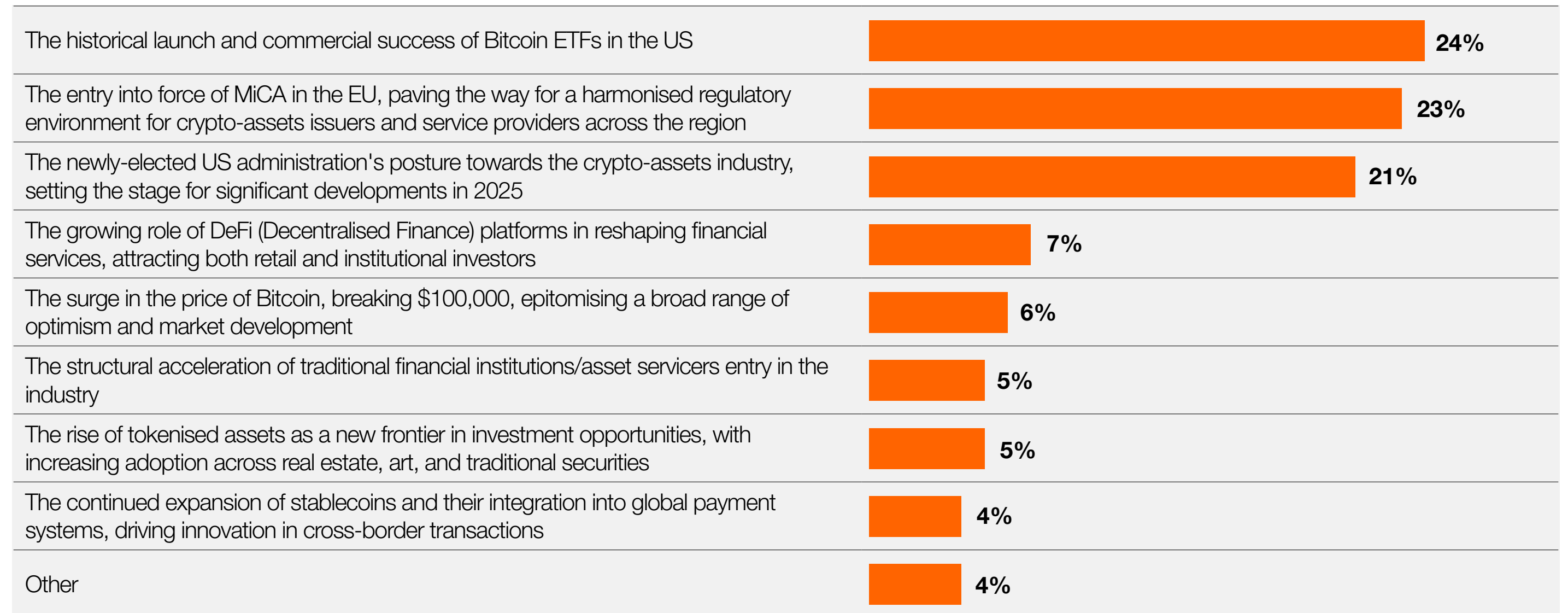
Note: the graph shows only the options "Higher Potential" and "Much Higher Potential" combined.  
Source: PwC Global AWM & ESG Research Centre



The crypto-assets market in 2024 was shaped by several pivotal developments that signalled a positive trajectory for the industry. Among these, the launch of Bitcoin ETFs in the US stands out as a major milestone, with 24% of respondents identifying it as a key driver. This development reflects a significant step toward increased institutional adoption and mainstream acceptance of crypto-assets. In the EU, the introduction of MiCA is another landmark moment, highlighted by 23% of respondents. This regulation establishes a harmonised framework among Member States, aiming to enhance market stability and boost investor confidence.

Looking ahead, the policy direction of the newly elected US administration is seen as a key factor by 21% of respondents, with expectation for further regulatory advancements that will drive market growth in 2025 (cf. Exhibit 10).

**Exhibit 10.** What is the main takeaway of the crypto-assets market developments in 2024?



Note: the percentage may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre

**Crypto regulation in the EU**

Since our last edition in 2023, the Markets in Crypto-Assets (MiCA) regulation officially came into force, marking a significant shift in the EU's approach to crypto-assets. MiCA represents a milestone for the European market. As the regulation states, "the absence of an overall Union framework for markets in crypto-assets can lead to a lack of user confidence in those assets, which could significantly hinder the development of a market in those assets and lead to missed opportunities in terms of innovative digital services, alternative payment instruments or new funding sources for Union companies."<sup>1</sup>

The scope of MiCA covers three main categories of crypto-assets: e-money tokens (EMTs), asset-referenced tokens (ARTs), and all other crypto-assets that do not qualify as financial instruments.

To further support MiCA's implementation, the European Banking Authority (EBA) and the European Securities and Market Authority (ESMA) have published technical standards and guidelines throughout 2024. The EBA's package focuses on aspects such as own funds, stress testing, setting minimum liquidity requirements for reserves, and recovery plans for crypto-asset issuers. Meanwhile, ESMA's guidelines primarily target crypto-asset service providers (CASPs), aiming to prevent market abuse, clarify crypto-asset classifications, protect investors during transfers, and enforce strict reverse solicitation rules.

One of the most significant provisions following MiCA's official introduction in December 2024 is the authorisation requirement for CASPs. Any firm offering crypto-related services within the EU must now be licensed and adhere to strict operational standards. This includes capital reserve requirements and consumer protection rules, ensuring that service providers are well-equipped to manage risks and safeguard their customers. To further facilitate this regulatory shift, Member States may adopt transitional measures, allowing service providers

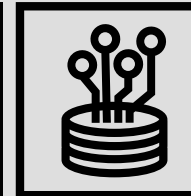
operating under national laws before December 30, 2024, to continue until July 1, 2026, or until they are granted or denied MiCA authorisation. This transition period supports business continuity and regulatory alignment, with entities already authorised at the national level benefiting from a streamlined MiCA application process. In addition, ETMs and ARTs deemed significant – based on criteria such as a large customer base, high market capitalisation, or substantial transaction volume – are now subject to more stringent rules. Issuers of these tokens must meet interoperability requirements and establish a liquidity management policy. These measures are designed to mitigate potential risks to the financial system, particularly those related to liquidity and stability.

In conclusion, MiCA establishes a clear regulatory framework for crypto-assets, aiming to enhance market stability, protect customers, support innovation, and provide a solid foundation for the future development of the crypto market in the EU.



1. Official Journal of the European Union (2023).

# Navigating the crypto-assets evolution

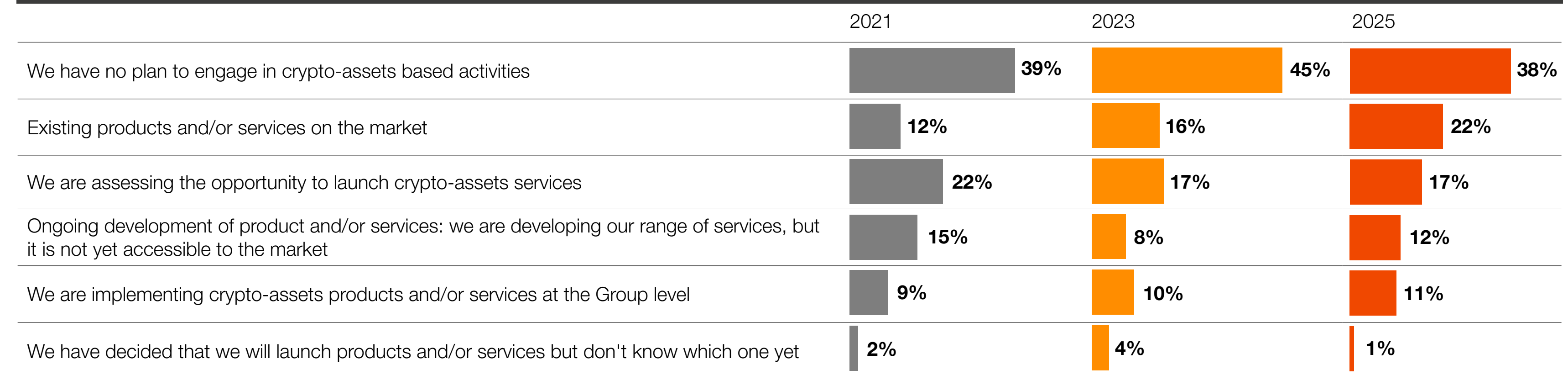


The crypto-assets market continues to evolve, with stakeholders in our survey at different stages of adoption and implementation. Among our respondents, 22% have already introduced crypto-assets-based products and services, reflecting a significant rise compared to the previous editions – up from 12% in 2021 and 16% in 2023. This rise is an indication of the growing confidence and interest in the potential of crypto-assets.

Furthermore, 17% of respondents are actively exploring opportunities to launch crypto-asset services, in line with 2023 findings, although this reflects a slight decrease compared to the 22% seen in 2021. Additionally, 12% of respondents are currently developing their range of crypto-assets products and services, marking a 4% increase from the previous year, though still lower than 2021 levels.

On the other hand, 38% of respondents have no plans to engage in crypto-assets activities. This result suggests that our sample is a representative snapshot of the broader market, capturing both the growing interest and the caution that some still feel regarding crypto-assets (cf. Exhibit 11).

**Exhibit 11.** Where do you stand in your crypto-assets journey?



Note: the percentages may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre

# 02

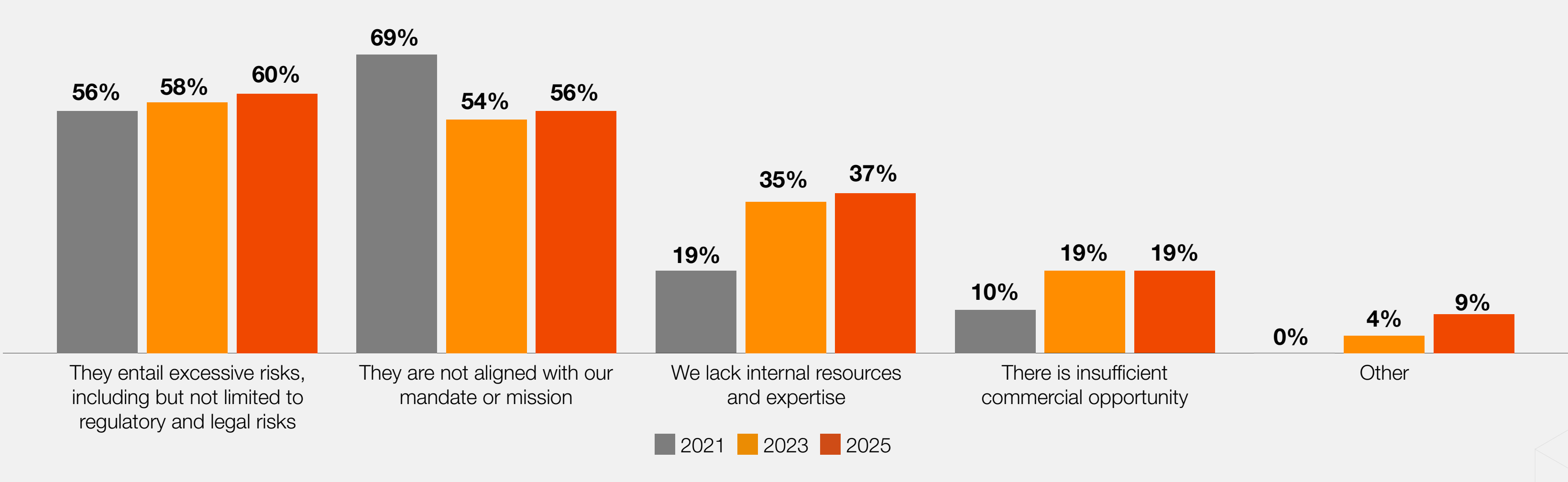
For these firms with no plans to engage in crypto-assets, risk remains the dominant concern. 60% of respondents cite excessive risks, particularly regulatory and legal uncertainties – a slight increase from 58% in 2023 and 56% in 2021. This persistent hesitation highlights the ongoing challenges financial institutions face despite recent regulatory efforts to provide greater clarity and oversight.

Beyond risks, strategic alignment is another significant barrier. Over half of respondents (56%) state that crypto-assets do not align with their firm’s mandate or mission, a slight rise from 54% in 2023.

Additionally, a lack of internal resources and expertise continues to hinder adoption, cited by 37% of respondents, a figure in line with the 2023 results, but nearly double the 2021 numbers. This widening skills gap underscores the difficulty firms face in developing the necessary capabilities for crypto-asset integration.

Meanwhile, concerns about limited commercial opportunities remain unchanged at 19%, suggesting that for some firms, the perceived business case for crypto-assets is still unconvincing (cf. Exhibit 12).

**Exhibit 12.** If no plan to engage, why?



Note: multiple choice question.  
Source: PwC Global AWM & ESG Research Centre



Over the years, the landscape of crypto-asset products and services has evolved significantly. One trend that has emerged is the increasing popularity of investment vehicles that offer indirect exposure to the crypto market. This year's survey reveals that 28% of respondents are either currently offering or planning to offer such products and services, reflecting a slight increase compared to previous editions.

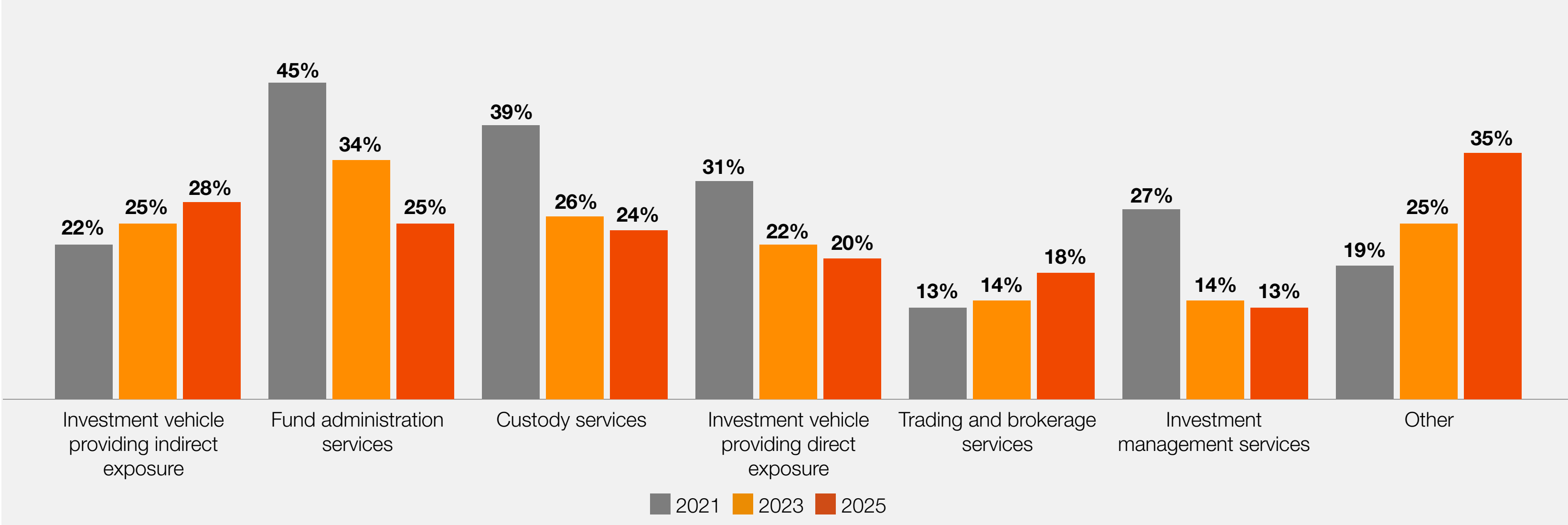
This type of investment vehicle has now become the most commonly provided product or service within our sample, surpassing fund administration services, though by a narrow margin. Interestingly, the share of fund administration services has declined steadily over the years – from 45% in 2021 to 34% in 2023, and now to just 25%. This sharp decline over

the years might be explained by an initial underestimation of the complexity and skills required to provide state of the art fund administration services to vehicles investing into crypto-assets. Over time this may have led to more specialisation of some market players and disengagement from early enthusiasts.

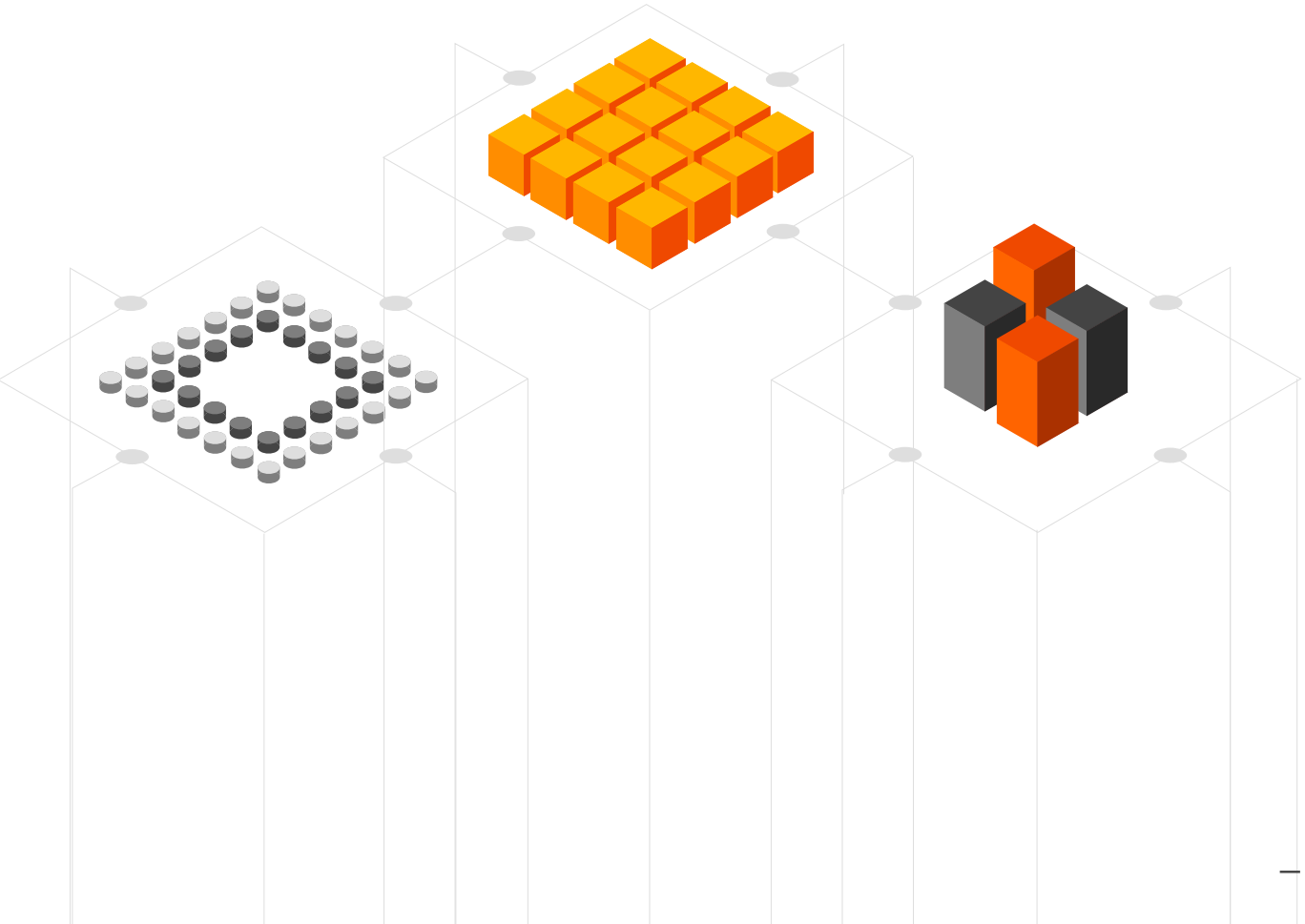
A similar downward trend has been observed in other categories, such as custody services and investment vehicles providing direct exposure, which have decreased by 15% and 11% respectively, since 2021. On the other hand, tokenised securities have emerged as the most prominent option among those proposing additional products and services.

This shift suggests that the crypto-asset sector is increasingly moving away from traditional, service-oriented offerings and toward more structured, product-oriented solutions. As the market matures, investors are seeking simpler, more liquid, and diversified ways to gain exposure to crypto-assets. Factors such as evolving regulations, changing investor preferences for reduced risk and complexity, and technological advancements may all contribute to this evolution (cf. Exhibit 13).

**Exhibit 13.** What kind of crypto-asset products/services are you delivering or planning to deliver?



Note: multiple choice question.  
Source: PwC Global AWM & ESG Market Research Centre

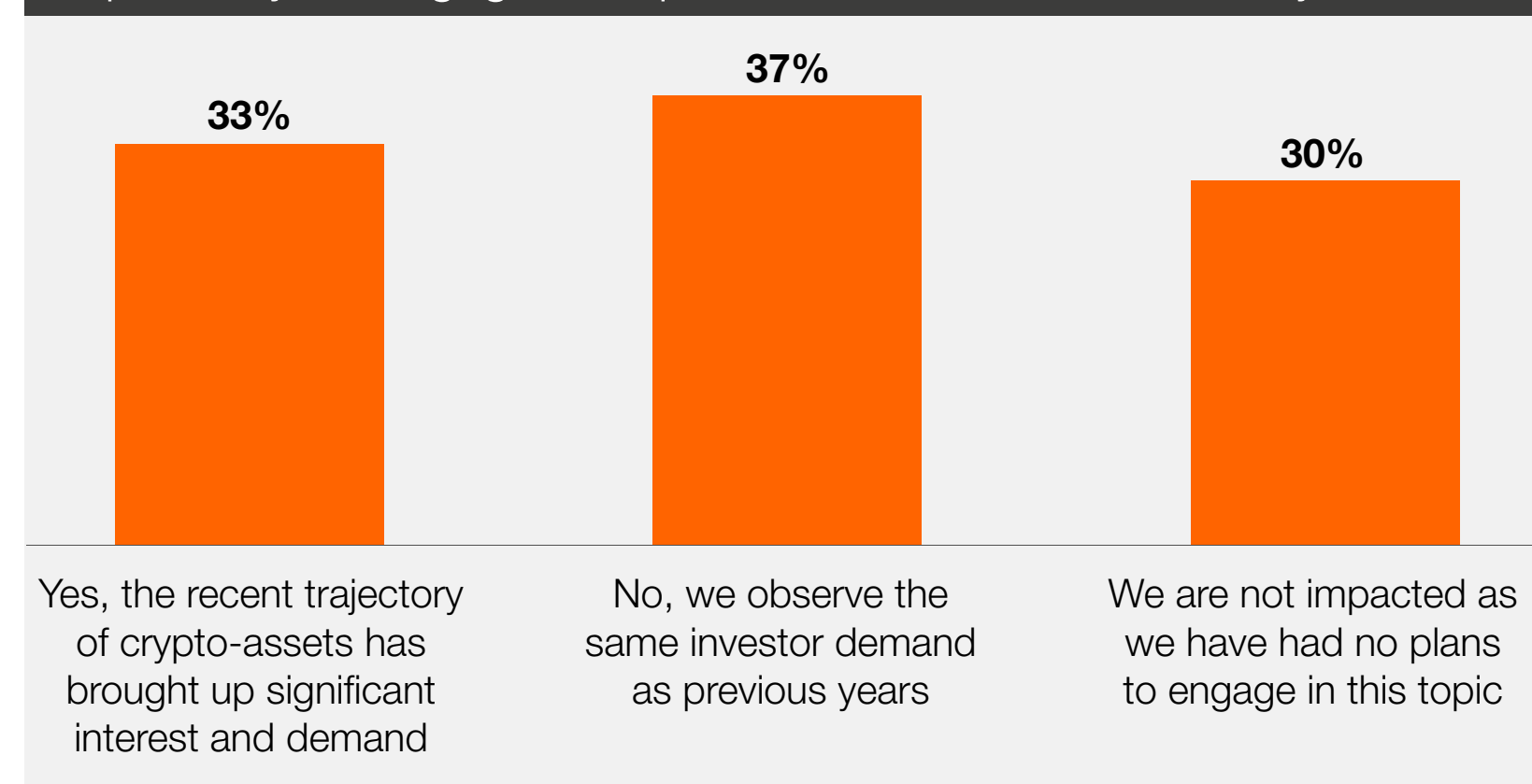


The market's recent performance has played a crucial role in shaping industry participants' engagement strategies. The trajectory of crypto-assets has fuelled significant interest and demand, with 33% of respondents acknowledging an increased appetite for crypto-assets. This growing enthusiasm could be linked to the US government's increasingly crypto-friendly policies, which have signalled greater institutional acceptance and regulatory clarity, fostering confidence across global markets.

Despite this momentum, 37% of respondents report that investor demand remains unchanged from previous years, suggesting that while enthusiasm is rising in certain areas, others remain cautious. Meanwhile, 30% indicate that their engagement strategies remain unaffected, as they have had no prior plans to enter the crypto-assets space. This underscores the ongoing divide between firms actively exploring crypto-asset opportunities and those maintaining a more reserved stance (cf. Exhibit 14).

New question

**Exhibit 14.** Has the recent market performance of crypto-assets impacted your engagement plans/ambitions in this industry?



Note: the percentage may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre

The Markets in Crypto-Assets (MiCA) regulation, which officially entered into force in June 2023 (for crypto-assets issuers) and December 2024 (for CASPs), marks a significant milestone in establishing a harmonised framework for crypto-assets across the EU. The regulation is designed to strengthen consumer protection, uphold market integrity, and provide legal clarity for crypto-assets issuers and crypto-assets service providers.

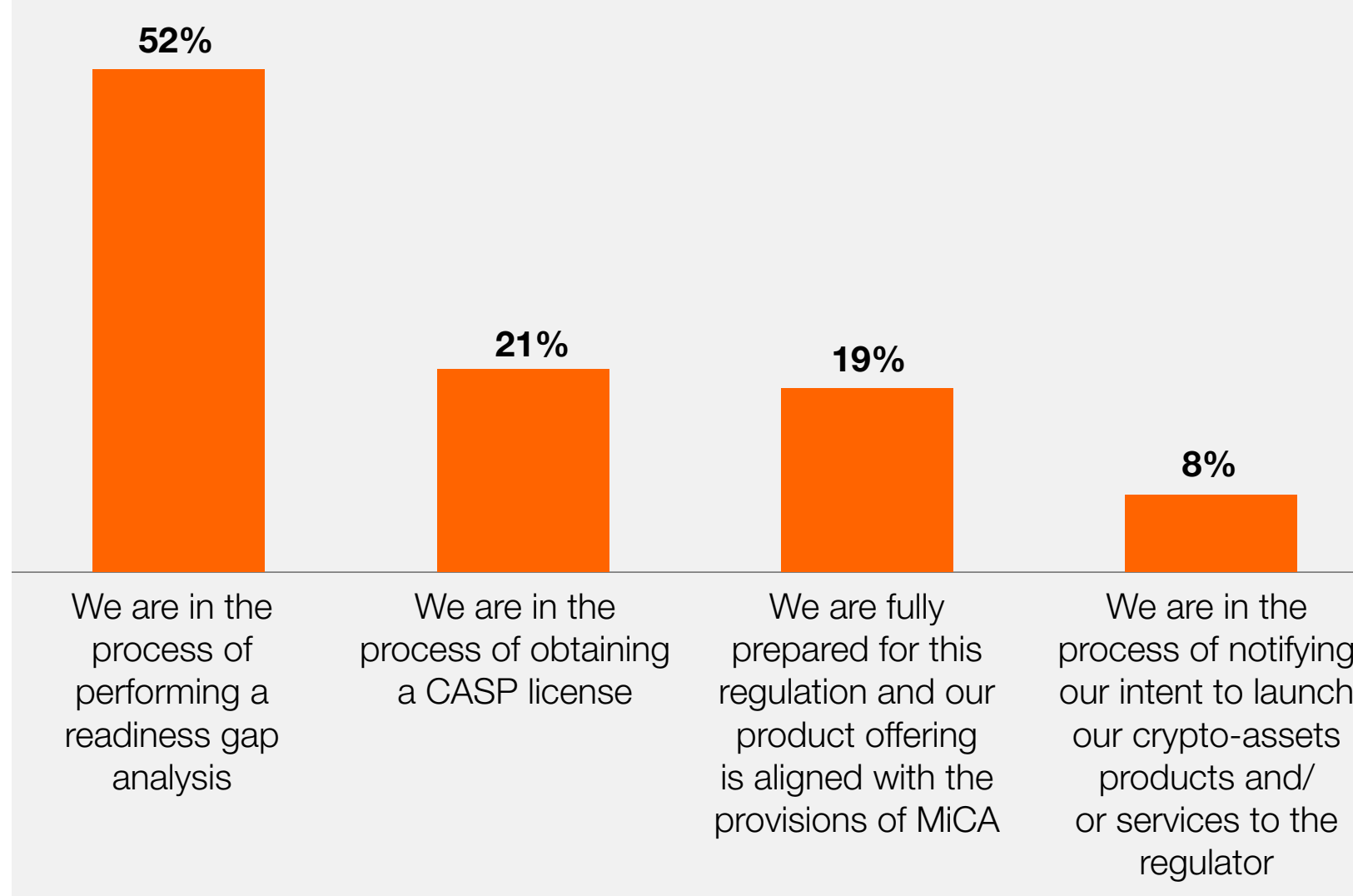
As firms navigate this evolving landscape, many are taking proactive steps to comply with MiCA's requirements. A significant portion of respondents, 52%, are currently conducting a readiness gap analysis to evaluate their compliance needs. Others are further along in their preparations, with 21% actively working towards obtaining a CASP license, a critical requirement for firms providing crypto-related services under the new framework. Additionally, 19% have already aligned their product offerings with MiCA's provisions, demonstrating early adoption of the regulatory standards (cf. Exhibit 15).

“MiCA provides a clear and comprehensive regulatory framework for Europe. This stability and transparency should attract investors in the coming months, making the continent a key destination for innovation and growth in the financial sector.”

**Laurent Marochini**, CEO, Standard Chartered Luxembourg

New question

**Exhibit 15.** Which of the following statements best describes your level of preparedness regarding the MiCA (Markets in Crypto-Assets) regulation?



Note: the percentage may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre

The development of crypto-asset products and services continues to be largely influenced by customer demand, with 57% of respondents identifying it as their primary motivation. This figure represents an increase from 48% in the 2023 edition yet remains below the 70% reported in 2021. The decline observed in 2023 can be attributed to the market turbulence experienced during that period, which dampened investor confidence. However, the resurgence in 2025 suggests a renewed enthusiasm among customers, possibly driven by market recovery and increased regulatory clarity.

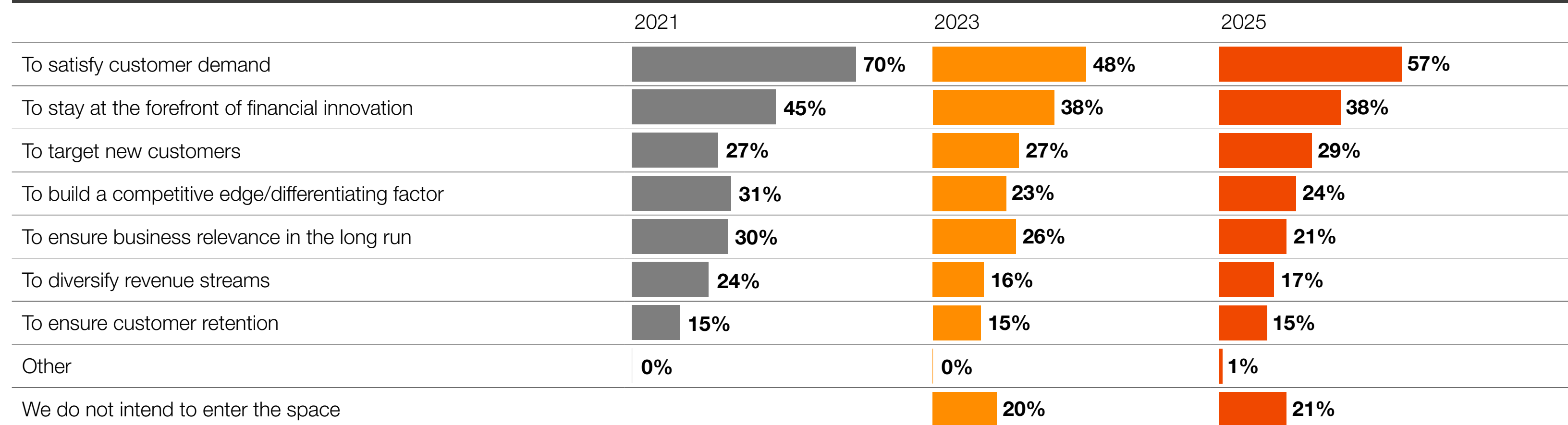
Meanwhile, the drive to remain at the forefront of financial innovation remains strong, with 38% of respondents prioritising it in 2025, consistent with 2023 levels. Likewise, 29% see crypto-assets as a tool to attract new customers, while 24% consider them essential for maintaining a competitive edge, both figures aligning with the previous edition's results (cf. Exhibit 16).

While customer demand has previously been highlighted as a crucial motivation for firms to develop crypto-asset products and services, the actual level of demand still appears constrained. Although 51% of respondents acknowledge the presence of demand within their business, they note that it remains limited, a figure largely unchanged from the previous years.

In a positive development, 26% of respondents report that demand is increasingly present in their business, a notable rise from 15% in 2023. This shift suggests that interest in crypto-assets is gradually expanding. Conversely, 19% of respondents indicate that demand is non-existent, a slight improvement from 25% in the previous edition, which signals a gradual but uneven transition towards customers' increasing interest in such assets.

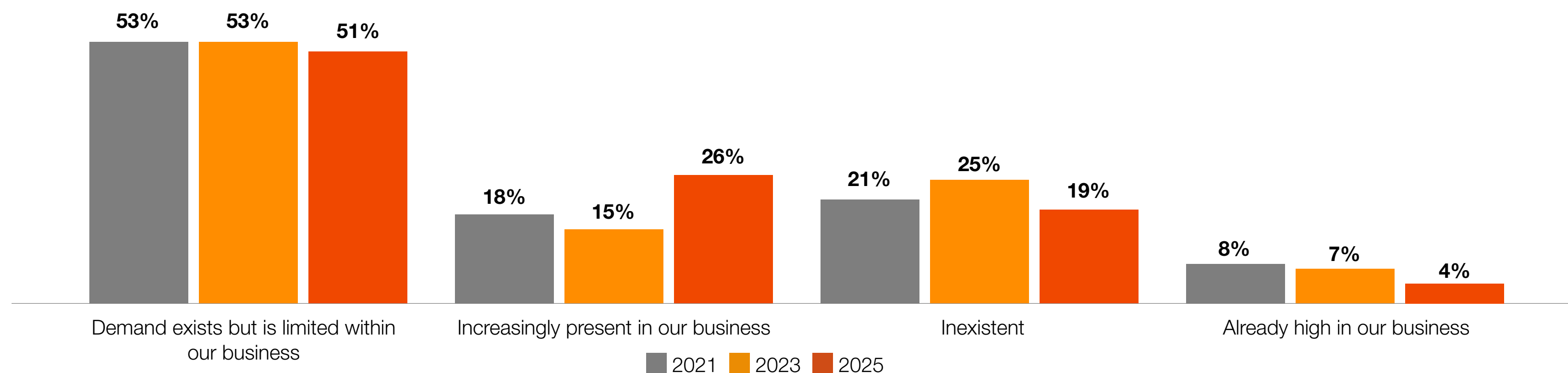
Overall, these findings suggest that while demand for crypto-assets is growing, it has yet to reach a level that drives widespread integration across the industry (cf. Exhibit 17).

**Exhibit 16.** What would be your primary purpose(s) when developing crypto-assets products and services?



Notes: in the 2021 edition, the option "We do not intend to enter the space" was not included. Multiple choice question.  
Source: PwC Global AWM & ESG Research Centre

**Exhibit 17.** How would you assess the current demand for crypto-asset products/services from your customers?

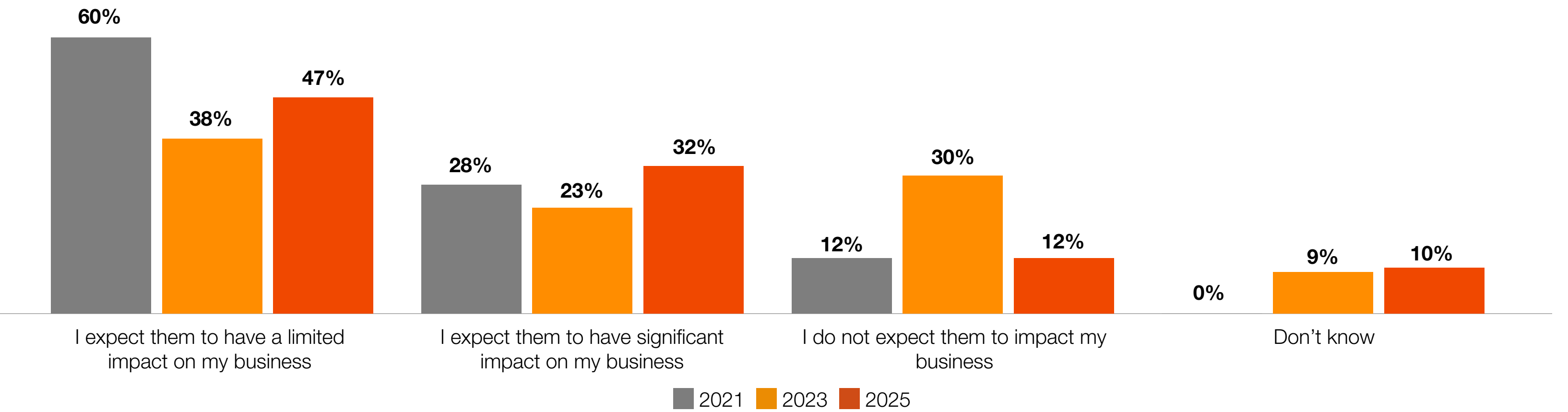


Note: the percentages may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre

Compared to previous editions, the anticipated impact of crypto-assets on business operations has evolved. Nearly one-third of respondents now expect a significant impact on their business, up from 28% in 2021 and 23% in 2023, indicating a growing confidence in their potential.

In contrast, the perception of no impact has declined. After peaking at 30% in 2023, it has now returned to the 12% level seen in 2021. Additionally, the view of a limited impact has increased by 9% compared to 2023, although it remains well below the 60% recorded in 2021. These findings could indicate cautious optimism, as businesses recognise the growing importance of crypto-assets while adapting to the evolving landscape, including ongoing regulatory adjustments (cf. Exhibit 18).

**Exhibit 18.** To what extent do you expect crypto-assets to impact your business?



Note: the percentages may not add up to 100% due to rounding.  
 Source: PwC Global AWM & ESG Research Centre



Expectations regarding the impact of crypto-assets on business operations vary significantly across different industry segments, reflecting both cautious optimism and uncertainty.

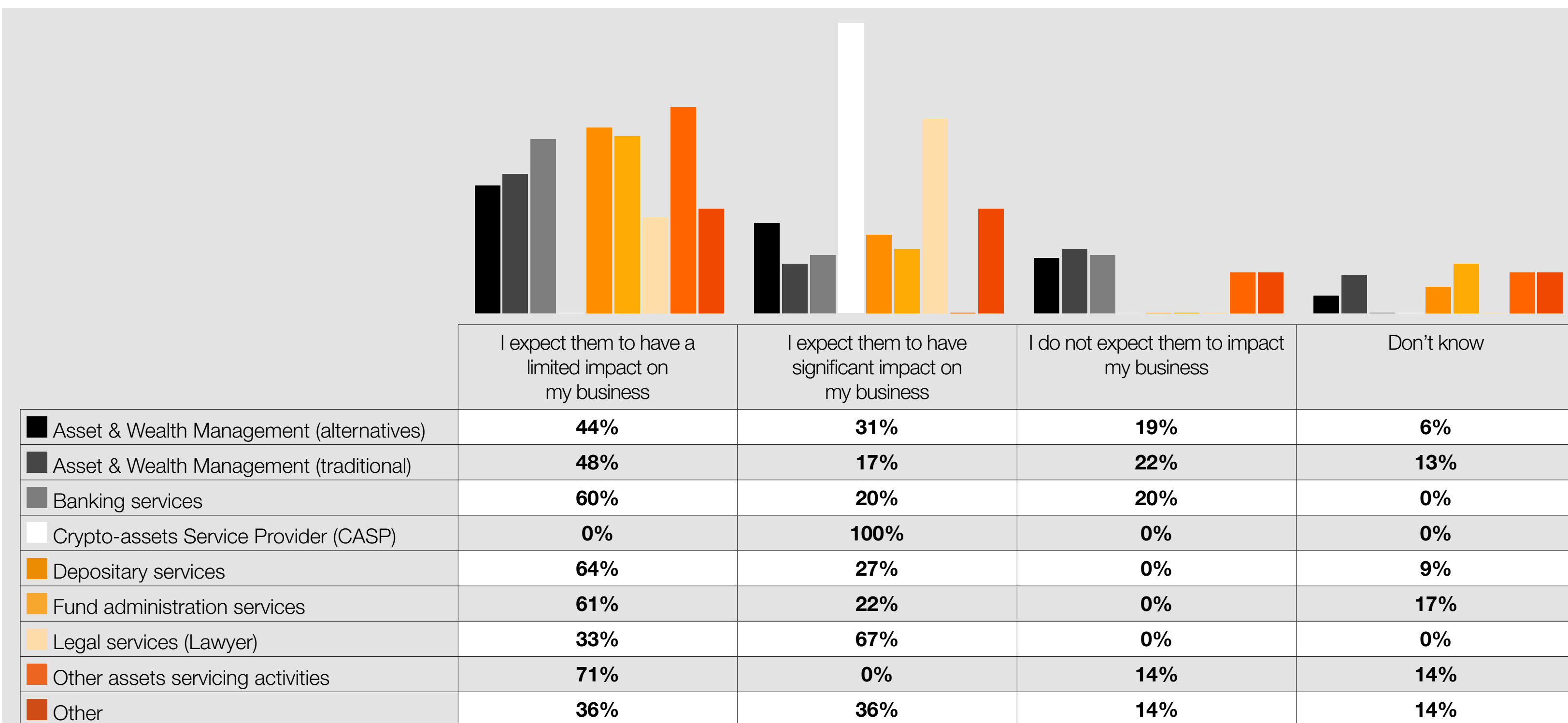
In the depositary and fund administration services, the outlook remains largely conservative. A significant proportion of respondents in these sectors, 64% and 61% respectively, anticipate only a limited impact from crypto-assets. This could suggest a guarded stance toward crypto-assets, with integration into core operations appearing uncertain at this stage.

In contrast, 67% of legal services expect a more profound shift, reflecting the growing demand for legal expertise as firms navigate an increasingly complex regulatory landscape for crypto-assets.

Banking services exhibit a divided perspective, with 20% of respondents expect crypto-assets to have a significant impact, while another 20% do not anticipate any effect on their business. This split highlights the ongoing uncertainty surrounding the potential integration of crypto-assets in traditional banking models.

The divergence between traditional and alternative asset and wealth management is notable. While 31% of alternative asset managers expect significant changes due to crypto-assets, only 17% of traditional managers share this view, with almost half of them predicting a limited impact (cf. Exhibit 19).

**Exhibit 19.** To what extent do you expect crypto-assets to impact your business? (Breakdown by business areas)



Note: the percentages may not add up to 100% due to rounding.

Source: PwC Global AWM & ESG Research Centre

When asked about the timing of crypto-asset-based products and services becoming a strategic priority for their business, 24% of our sample have already identified them as such. This marks an 8% increase compared to the 2023 findings, suggesting a growing recognition of the potential value that crypto-assets can bring to business operations and growth.

Additionally, 38% of respondents believe that crypto-assets will become a strategic priority in the short term (i.e. either within the next 6-12 months or within the next 2 years), in line with the 2023 findings, indicating that firms are increasingly viewing crypto-assets as an integral part of their future strategy.

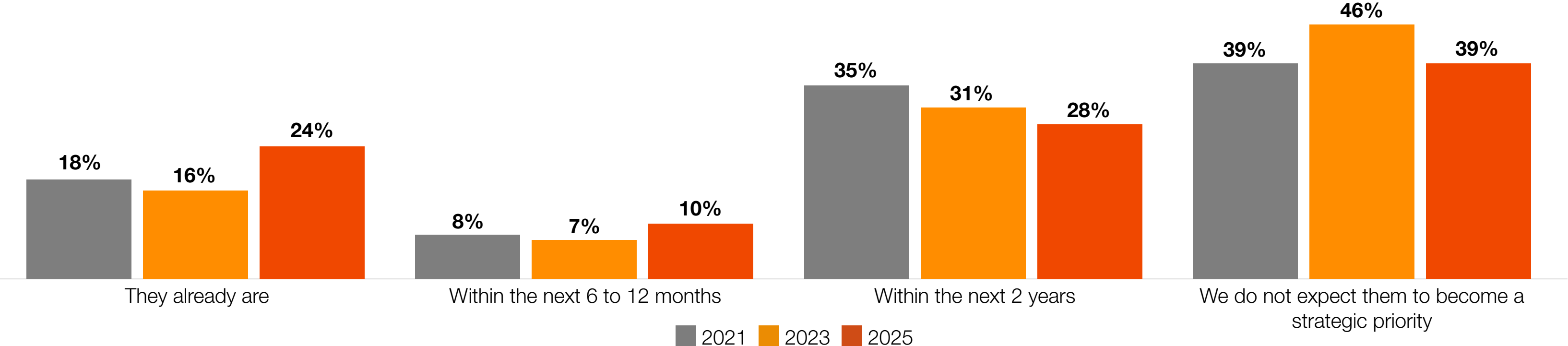
In contrast, the percentage of those who do not expect crypto-assets to become a strategic priority has decreased to 39%, aligning with the level recorded in the 2021 survey. While this group still makes up a significant share of respondents, the decline compared to 2023 may reflect the rising importance of crypto-assets in the broader market (cf. Exhibit 20).

Customer inquiries about crypto-assets provide valuable insight into the evolving priorities of investors and market participants. Overall, firms that have not received any customer inquiries have declined to 24%, down from 34% in 2023, highlighting a shift in the customers' engagement dynamics.

The most common inquiry, cited by 48% of respondents, relates to obtaining direct or indirect exposure to crypto-assets through investment vehicles — a modest increase from 43% in the previous edition. Institutional-grade custody services remain a key area of interest, with 27% of respondents reporting related queries, up from 25% in 2023.

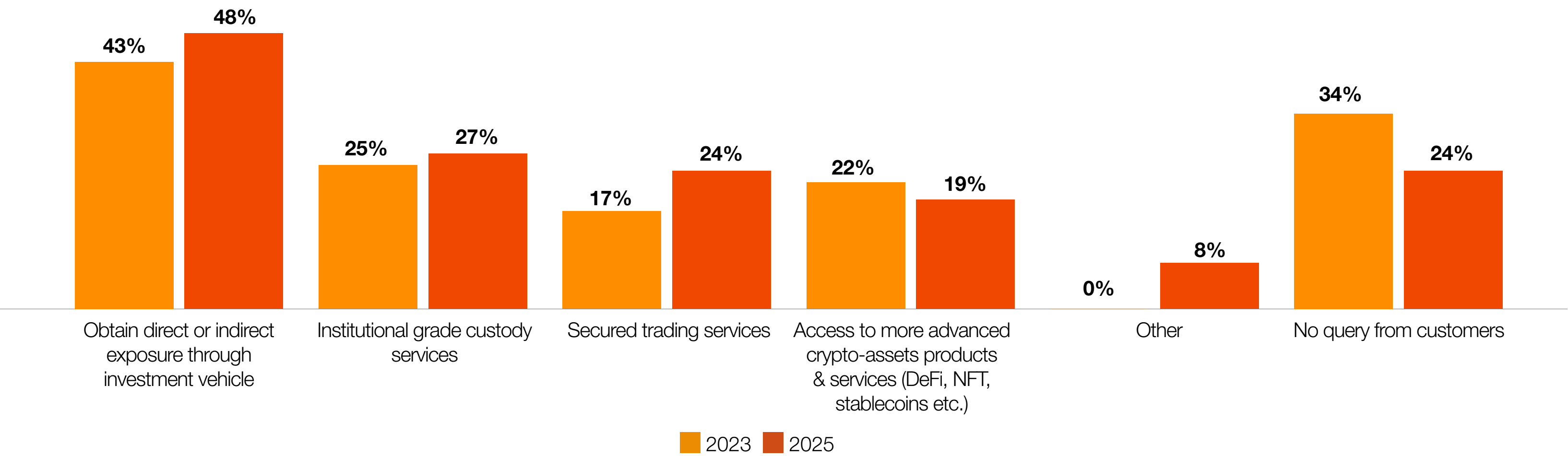
Demand for secured trading services has also risen, with 24% of firms receiving inquiries, compared to 17% in the last edition. On the contrary, interest in more advanced crypto-asset products and services, including DeFi, NFTs, and stablecoins, has experienced a slight decline, as reported by 19% of respondents (cf. Exhibit 21).

**Exhibit 20.** When do you expect crypto-assets-based products/services to become a strategic priority for your business?



Note: the percentages may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre

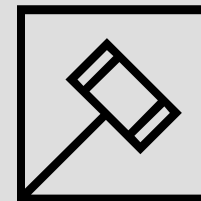
**Exhibit 21.** What typical crypto-assets-related query are you receiving from your customers?



Note: multiple choice question.  
Source: PwC Global AWM & ESG Research Centre

# Luxembourg readiness

## and roadblocks



As the global crypto-asset market continues to expand, Luxembourg has positioned itself as a key player in crypto-assets management, balancing regulatory readiness with industry growth opportunities. This year's survey shows greater clarity around the legal and regulatory framework for crypto-assets in the Grand Duchy, with half of our respondents expressing a clear understanding of the matter.

While some respondents demonstrate confidence in their knowledge of the regulatory environment, a significant portion remains uncertain.

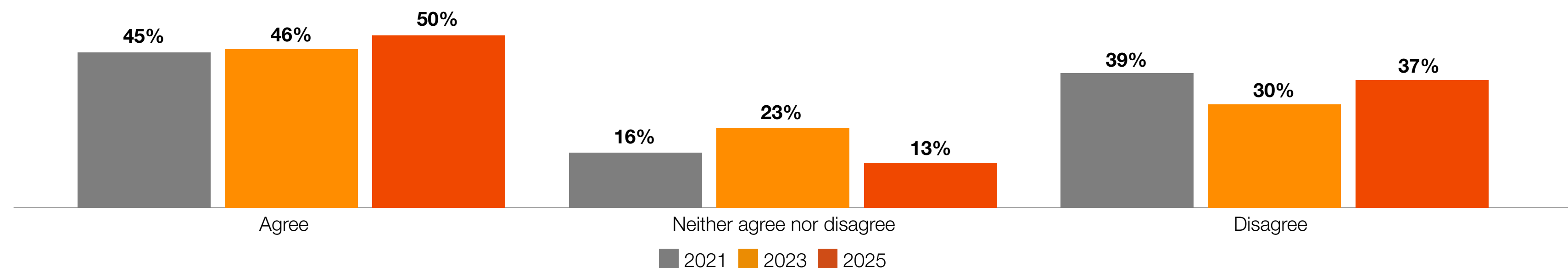
In this context, 37% still report a lack of clear understanding, reversing the progress seen in 2023 and nearing the levels observed in 2021.

With these varying levels of understanding, a gap seems to emerge between those who are fully informed and those who are not. Bridging this gap would require cohesive efforts to improve awareness and clarity around crypto-asset regulations in the future.

In light of this, it is important to highlight recent efforts by the European Securities and Markets

Authority (ESMA) to clarify the necessary expertise required of crypto-asset service providers, as outlined in the MiCA regulation. ESMA's guidelines<sup>2</sup> aim to ensure that individuals offering services related to crypto-assets possess the necessary knowledge and competence, enhancing both investor protection and the overall integrity of the market. These initiatives are a step towards addressing the current lack of clarity and fostering a more informed and regulated environment for crypto-asset activities (cf. Exhibit 22).

**Exhibit 22.** To what extent would you agree with the following sentence: "I have a clear understanding of the existing legal and regulatory framework around crypto-assets in Luxembourg"?



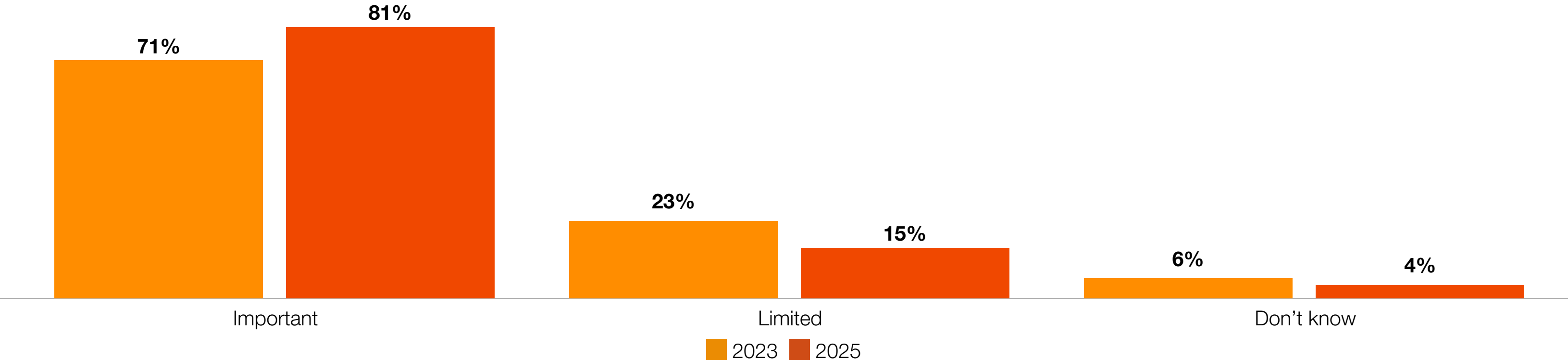
Note: the percentages may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre

2. *European Securities and Market Authority (2025), "Consultation Paper. Guidelines for the criteria on the assessment of knowledge and competence under the Market in Crypto Assets Regulation (MiCA)".*

The role of crypto-assets in the future of asset management in Luxembourg continues to gain traction, with 81% of respondents considering them important, a notable increase from 71% in the previous edition. This upward trend could be a signal of growing industry recognition of crypto-assets as a fundamental part of financial strategies.

Meanwhile, only 15% believe that the role of crypto-assets remains limited, reflecting a decline from 23% in 2023, suggesting that scepticism is gradually diminishing (cf. Exhibit 23).

**Exhibit 23.** How would you assess the importance of crypto-assets for the future of asset management in Luxembourg?



Notes: "Important" groups the "Extremely", "Very", and "Somewhat Important" responses. "Limited" groups with "somewhat" and "Very Limited" responses. The percentages may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre



Despite the growing recognition of their importance, certain challenges continue to limit the expansion of crypto-assets in Luxembourg. The most pressing concern remains the limited expertise within the local crypto-assets service provider ecosystem, as cited by 64% of respondents. While this figure represents a slight improvement from 70% in the previous edition, it underscores the ongoing need for specialised knowledge and skills in the sector. Internal risk appetite and perceived reputation risk follow closely at 63%, reflecting the continued cautious stance of financial institutions towards crypto-assets.

A lack of internal skills also remains a notable barrier, with 56% of respondents highlighting it as an obstacle, though this marks a slight improvement from 61% in 2023. Additionally, concerns about alignment with the traditional financial sector persist, with 54% identifying it as a hurdle—down by 6% compared to the last edition. Both declines suggest slow, yet positive progress in integrating crypto-assets within the existing financial landscape.

Meanwhile, concerns about customer demand have significantly decreased, with 39% identifying it as a barrier, down from 54% in the previous edition. This reflects a shift in market perception and increasing interest in such assets (cf. Exhibit 24).

**Exhibit 24.** How would you describe the following factors as constraints to the growth of crypto-assets in Luxembourg?

	2023	2025
Limited expertise within the local crypto-assets service providers ecosystem	70%	64%
Internal risk appetite and perceived reputation risk	62%	63%
Lack of internal skills	61%	56%
Lack of alignment within the traditional financial centre	60%	54%
Reduced supply of stakeholders at some key nodes of the value chain	41%	40%
Lack of customer demand	54%	39%
Lack of buy-in from HQ (if HQ outside LU)	32%	31%
Obstacles to cross-border business due to lack of EU framework	58%	27%

Notes: the graph shows the options “Significant” and “Highly significant” combined. Multiple choice question.  
Source: PwC Global AWM & ESG Research Centre

“Key drivers for crypto integration include a full ecosystem of regulated service providers, enabling Luxembourg to operate supervised/regulated crypto funds and to leverage its expertise to become a leading hub for institutional crypto investment.”

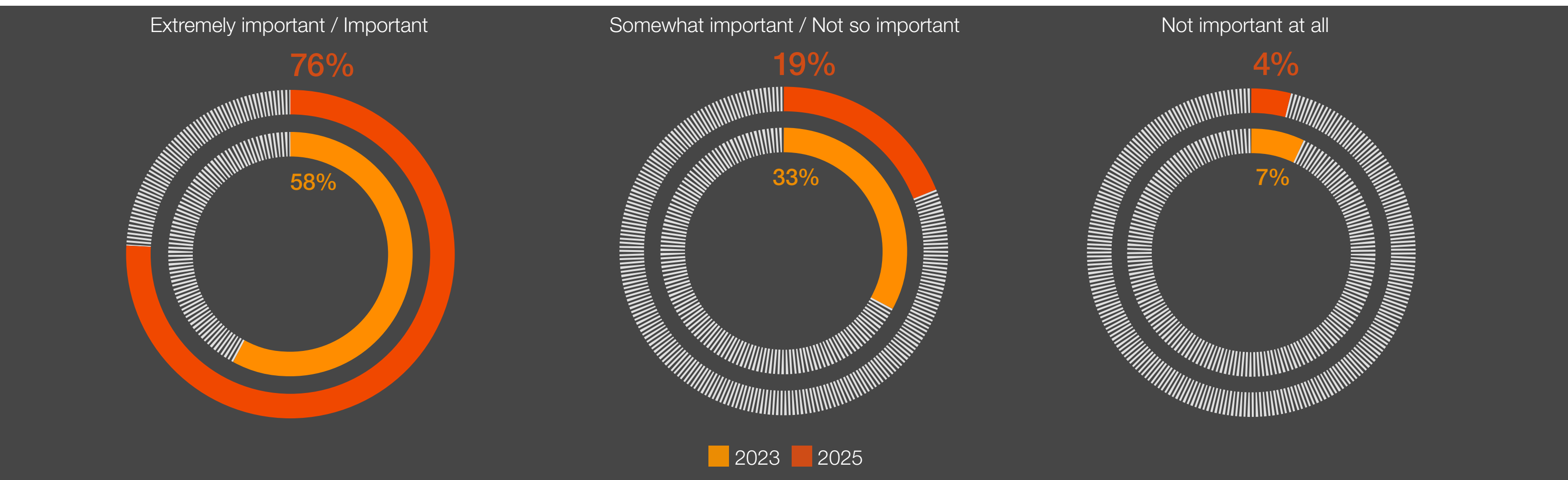
**Julien Wolff**, Executive Manager & Head of Risk Management, 6 Monks

While some challenges have shown signs of improvement, the findings underscore the need for continued efforts to strengthen Luxembourg’s crypto ecosystem. A more proactive approach is essential to foster expertise and deepen the integration of crypto-assets into the traditional financial sector.

Respondents also strongly emphasise the importance of Luxembourg taking a more active role in this development.

This year, 76% of respondents believe the Grand Duchy should adopt a more proactive stance, reflecting a notable increase from the previous edition. This shift underscores the growing recognition of the importance of clear regulation and innovation in maintaining Luxembourg’s competitiveness as a leading hub in the sector. Moving forward, the country’s ability to address these challenges and embrace opportunities will be crucial in shaping its future position within the global market (cf. Exhibit 25).

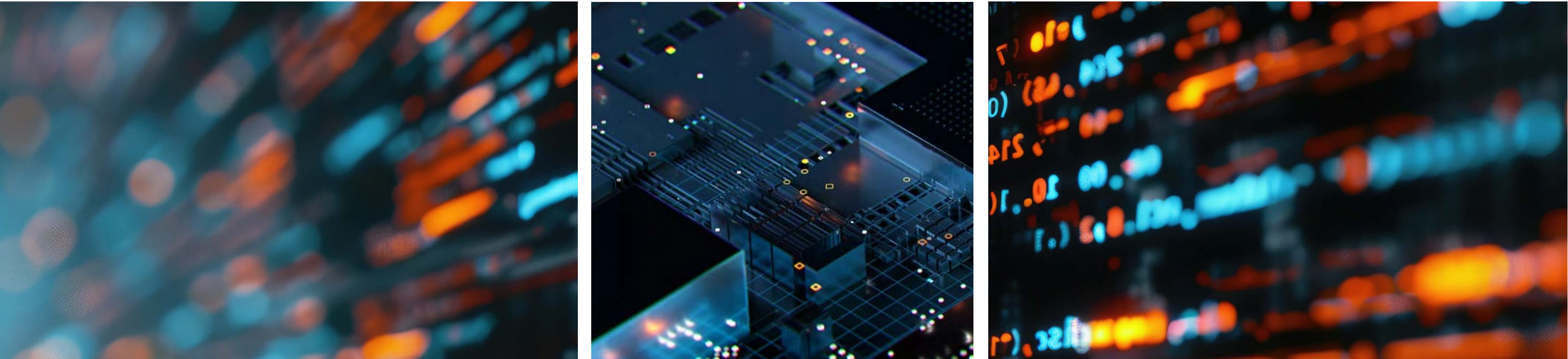
**Exhibit 25.** How would you assess the need for Luxembourg to take a more active stance in the broad crypto-assets industry?



Note: the percentages may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre

“The industry will have to adapt and evolve in order to meet the demands of its clients. Luxembourg’s established expertise in fund structuring and regulatory compliance gives it a head start—but the industry must move proactively to stay ahead.”

**Danzel Walters**, Head of Luxembourg for B2C2

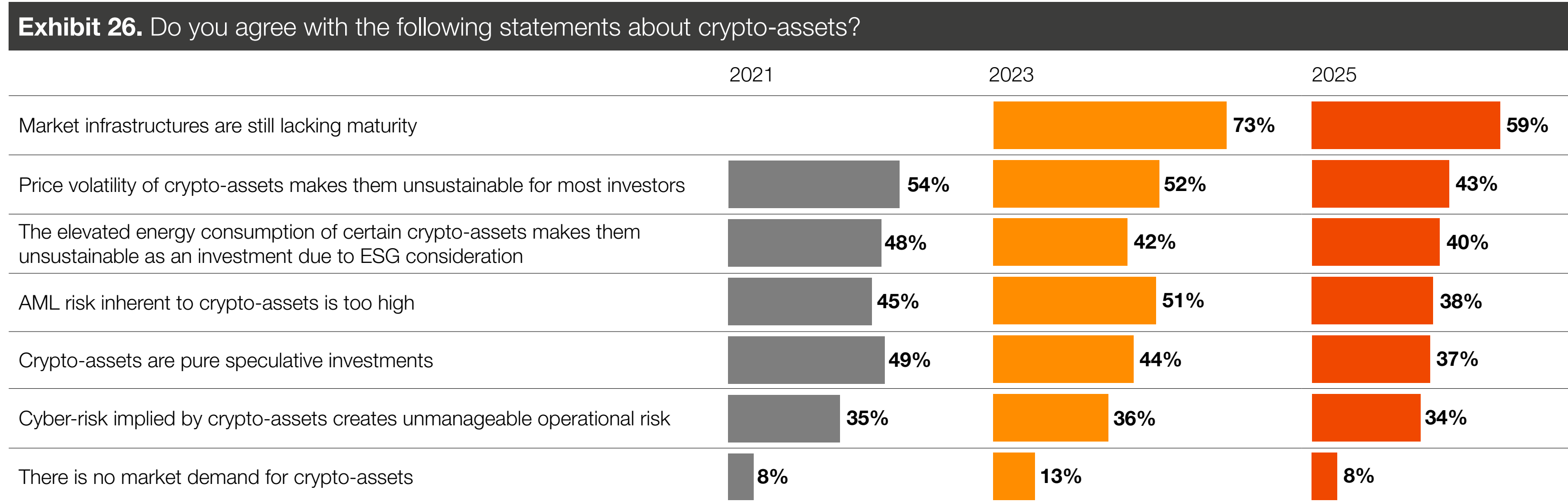


To gain deeper insight into how stakeholders perceive crypto-assets, we asked them to evaluate their agreement with several key statements about crypto-assets. The results show that significant improvements have been made in market infrastructure since 2023, when the percentage peaked at 73%. However, 59% of respondents still view an immature market infrastructure as a concern.

Similarly, although price volatility remains a major concern for 43% of respondents, this reflects a slight easing of market uncertainty compared to 2023, when 52% of respondents cited it as a key issue. This shift suggests some stabilisation following the tumultuous events of 2023, which saw significant fluctuations in crypto-asset valuations, heightened investor distrust and withdrawals.

Environmental considerations continue to influence sentiments, with two-fifths of respondents highlighting the high energy consumption of certain crypto-assets as a sustainability challenge, consistent with the previous edition. Additionally, AML-related risks are cited by 38% of respondents, down from 51% in 2023, probably the result of ongoing regulatory improvements.

Conversely, the perception of crypto-assets as speculative investments has evolved significantly. While nearly half of respondents considered them speculative in 2021, this view has now dropped to 37%. This shift could be attributed to the increased clarity and security provided by new regulations as well as the growing recognition of crypto-assets as integral components of modern financial strategies (cf. Exhibit 26).



Notes: in the 2021 survey, the option "Market infrastructures are still lacking maturity" was not present. Multiple choice question.

Source: PwC Global AWM & ESG Research Centre

### AI/crypto assets frontier



The convergence between distributed ledger technology (DLT) and AI represents one of the most revolutionising shifts we could face in the following years. Indeed, the majority of AI platforms available today work on central services like Amazon Web Services or Google Cloud. This allows several benefits in terms of speed of AI data requests and easy management but presents its drawbacks when it comes to privacy concerns and potential points of failure. DLT can solve these issues by being an efficient way of storing and managing the impressive amount of data AI needs to thrive.

By combining DLT with AI, innovation is gradually being driven by a broader global community of developers and innovators focused on harnessing AI for positive impact, rather than just a few tech companies. This evolution opens up new possibilities for AI development, democratising it and creating an open system where anyone can contribute to and benefit from AI technologies. Decentralising AI developments guarantee a more widespread innovation which takes into account a wide array of perspectives and needs.

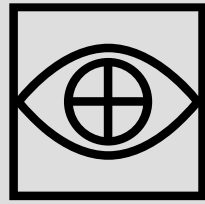
At the macro level, there are five distinct areas of implementation of the AI blockchain frontier. Firstly, the enhancement of security and fraud detections where AI algorithms can quickly monitor blockchain transaction patterns and detect anomalies and potential frauds. Smart contracts could also be optimised by including AI real-time assessment of data inputs for the fulfilment of certain contract provisions. Moreover, AI's capability to handle immense amounts of data sets the stage for better predictive analytics for crypto trading. On the other hand, blockchain allows the operation of AI systems' verification with transparent data streams limiting fears of misuse of data. To conclude, AI could also optimise energy-intensive blockchain transactions by predicting future network congestion and improving mining algorithms and computational requirements.

Multiple examples show how AI and DLT have been recently implemented together. For instance, ORA Protocol has introduced a revolutionary way to tokenise AI models allowing investors and developers from around the globe to own a piece of the AI ecosystem. ORA utilises DLT to create a marketplace where AI models can be exchanged through a decentralised network, guaranteeing a transparent and secure process for the creation of accessible AI models. NEAR Protocol is instead used to create AI infrastructure (like tools or web services) in the form of decentralised apps (dApps) that can run without any centralised control. Another interesting example is Render which offers a clue to constrained access to GPU computing power by setting up a decentralised marketplace where firms can acquire additional computing resources and scale their operations without massively investing in AI infrastructure.



Looking

forward

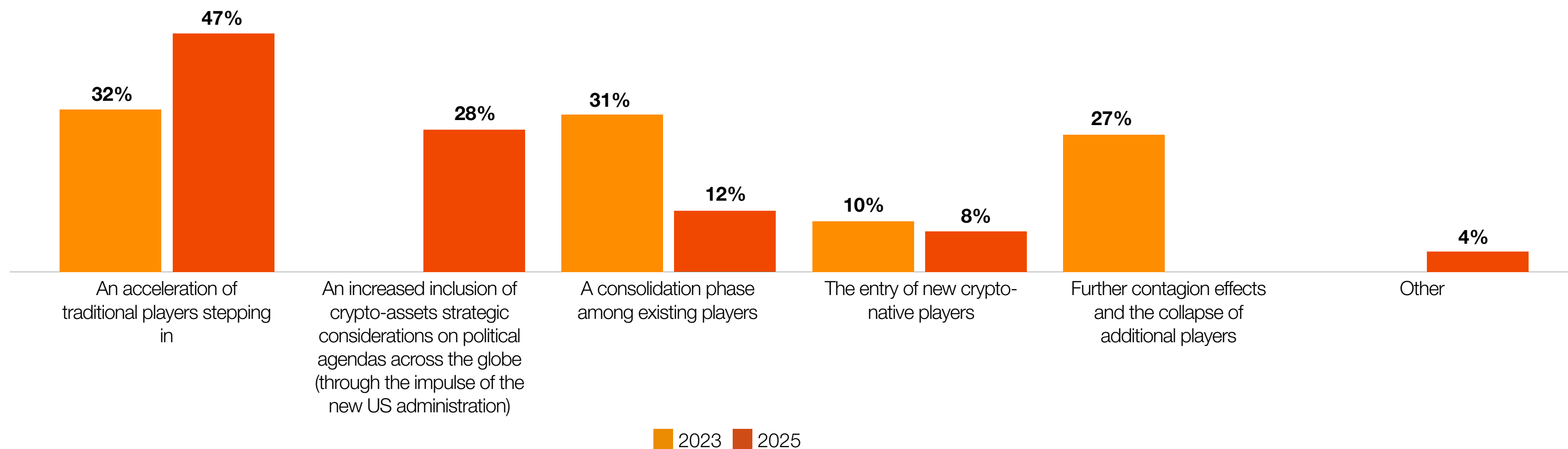


The developments of 2024, including significant regulatory progress in both the US and the EU, set the stage for further maturation. As the industry continues to integrate into the broader financial system, the next 12 months are expected to bring both challenges and opportunities.

According to the survey, 47% of respondents expect increased engagement from traditional financial institutions in the crypto-assets space, a significant rise from 32% in the previous edition. On the other hand, only 12% foresee a consolidation phase among existing players, a decrease of more than half compared to the 2023 findings.

Additionally, 28% foresee that crypto-assets will gain more prominence in strategic political agendas, particularly influenced by the new US administration's supportive stance on digital assets (cf. Exhibit 27).

**Exhibit 27.** What are your expectations for the crypto-assets industry over the coming 12 months?



Notes: in the 2023 survey, the options "An increased inclusion of crypto-assets strategic considerations in political agendas across the globe" and "Other" were not included. In the 2025 survey, the option "Further contagion effects and the collapse of additional players" was not included. The percentages may not add up to 100% due to rounding.

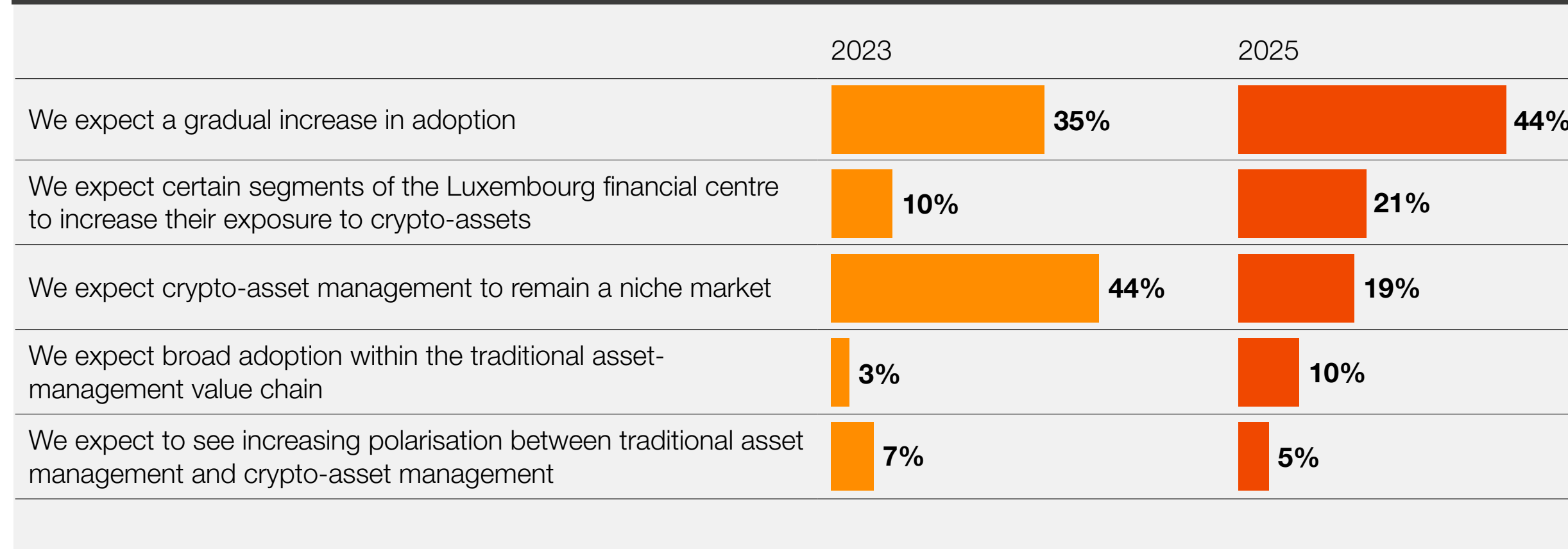
Source: PwC Global AWM & ESG Research Centre

04

The evolution of crypto-assets management in Luxembourg is expected to follow a steady growth trajectory. Over the next one to two years, 44% of respondents anticipate a gradual increase in adoption, up from 35% in the previous edition. Additionally, 21% expect that certain segments of Luxembourg’s financial sector will expand their exposure to crypto-assets, marking a notable rise from 10% in 2023.

Moreover, the perception of crypto-assets management as a niche market has significantly declined, dropping from 44% in 2023 to 19% in 2025. This shift suggests that the market is progressively integrating crypto-assets, moving beyond initial hesitation. Furthermore, 10% foresee broad adoption within the traditional asset management value chain, reflecting a growing willingness to incorporate crypto-assets into mainstream financial strategies (cf. Exhibit 28).

**Exhibit 28.** How do you see the crypto-assets management industry evolving in Luxembourg over the next 1 to 2 years?



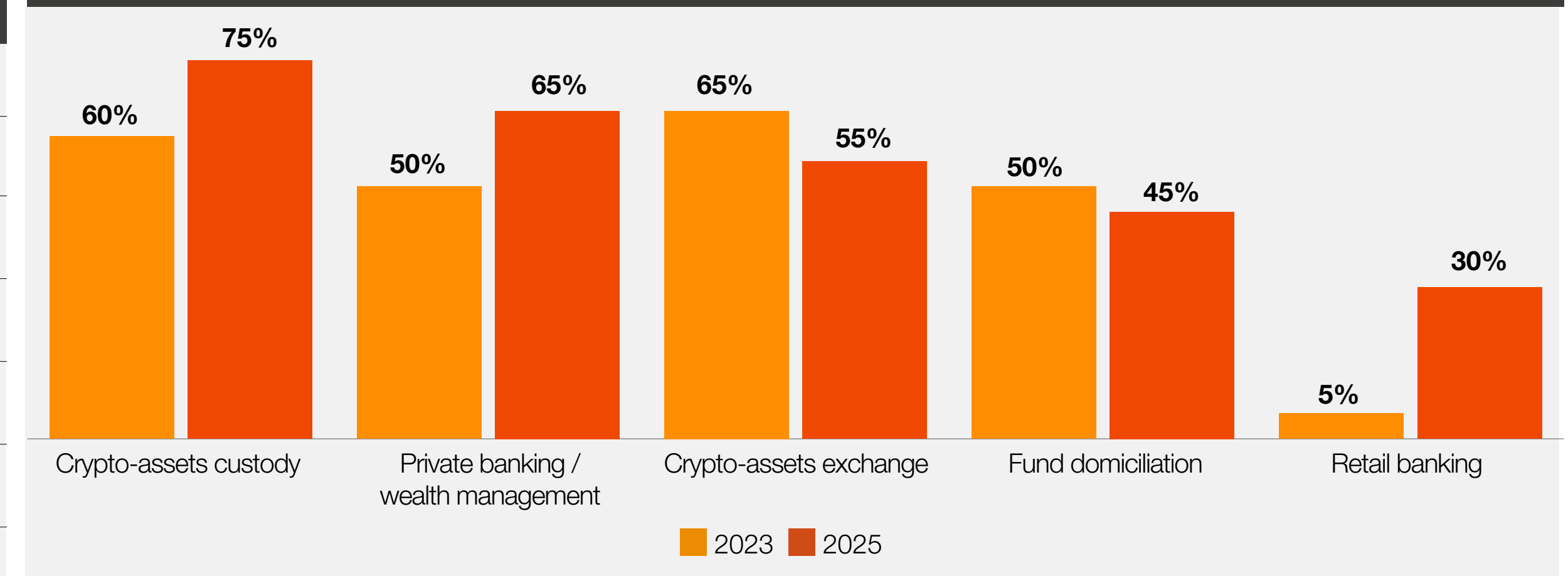
Note: the percentages may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre

Regarding the most promising segments, the crypto-assets custody is expected to see significant development, with 75% of respondents predicting expansion within the next one to two years, an increase by 15% compared to the previous edition. Similarly, private banking and wealth management are also gaining traction, with 65% forecasting growth, up from 50% in 2023, reflecting increasing interest in crypto-related financial services.

However, the most striking shift comes in retail banking, which has seen a dramatic rise in expectations – from just 5% in 2023 to 30% in 2025. This surge could indicate a growing strategic interest in integrating crypto-assets into mainstream banking services, alongside heightened demand from retail clients.

Meanwhile, both crypto-asset exchanges and fund domiciliation have seen a slight decrease in growth expectations. The outlook for exchanges has dropped by 10% from 65% in 2023, while fund domiciliation is expected to grow for 45% of respondents, down 5% compared to the previous edition (cf. Exhibit 29).

**Exhibit 29.** Which segment over the next 1 to 2 years?



Note: multiple choice question.  
Source: PwC Global AWM & ESG Research Centre

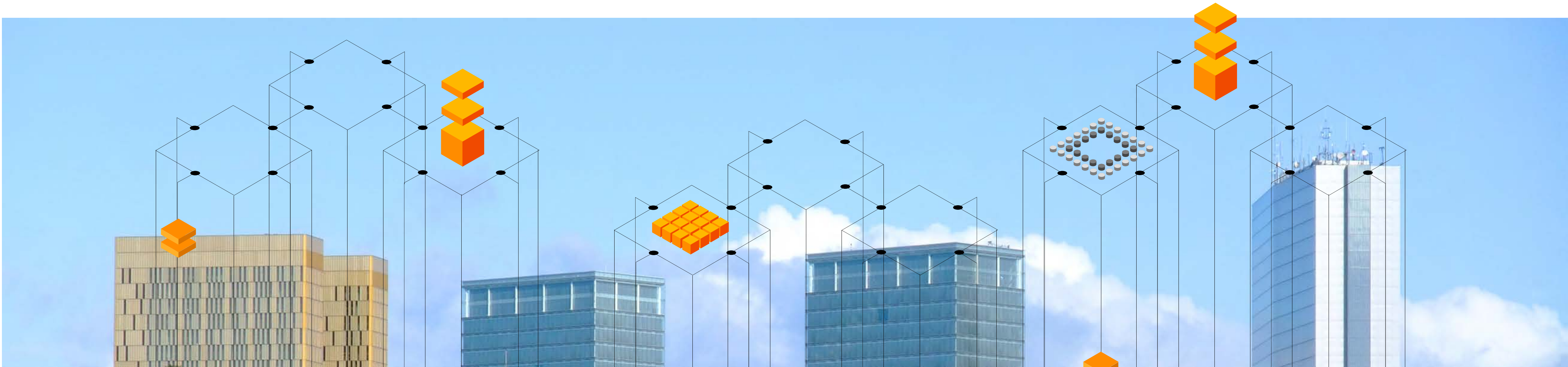
When considering a 5-year timeframe, the evolution of crypto-assets management in the Grand Duchy is still expected to see a gradual increase in adoption as cited by 33% of respondents, up from 21% in the previous edition. Similarly, expectations for broad adoption within the traditional asset management value chain have seen a notable increase, rising from 22% in 2023 to 30% this year.

Conversely, expectations regarding an increase in exposure to crypto-assets within the Luxembourg financial centre have declined by 6%, now standing at 16%. On a positive note, the outlook for crypto-asset management remaining a niche market has notably dropped, along with the possibility of polarisation between traditional and crypto-asset management, reflecting an anticipated broader integration of the crypto-asset sector into the overall financial industry (cf. Exhibit 30).

**Exhibit 30.** How do you see the crypto-assets management industry evolving in Luxembourg over the next 5 years?

	2023	2025
We expect a gradual increase in adoption	21%	33%
We expect broad adoption within the traditional asset-management value chain	22%	30%
We expect certain segments of the Luxembourg financial centre to increase their exposure to crypto-assets	22%	16%
We expect crypto-asset management to remain a niche market	23%	12%
We expect to see increasing polarisation between traditional asset management and crypto-asset management	12%	8%

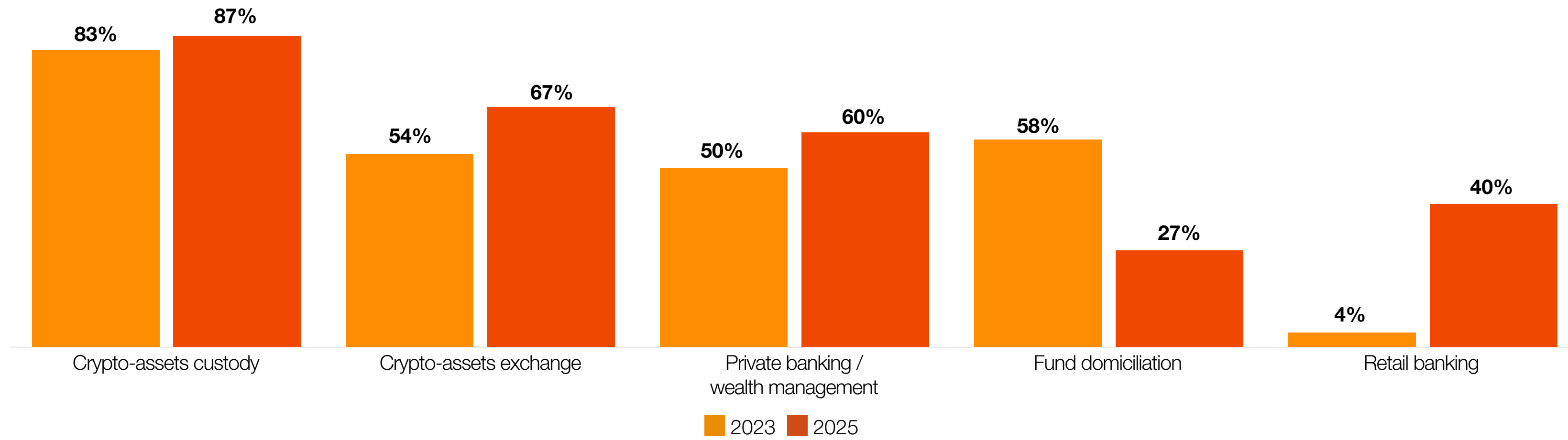
Note: the percentages may not add up to 100% due to rounding.  
 Source: PwC Global AWM & ESG Research Centre



Several segments within the crypto-assets industry are expected to experience growth over the next five years. Crypto-assets custody remains the most promising area, with 87% of respondents expecting expansion, up from 83% in the previous edition. Crypto-assets exchanges also show strong growth potential, with expectations rising to 67% from 54%, reflecting increasing market demand for secure and efficient trading platforms.

Private banking and wealth management services are also anticipated to strengthen their role in the industry, with 60% of respondents projecting growth, an increase from 50% in 2023. Fund domiciliation has seen the most significant shift, dropping from 58% to 27%, likely due to lower institutional acceptance and slower regulatory adaptation. Also considering a medium-term horizon, retail banking is expected to make substantial strides, with 40% of respondents anticipating development in this segment—up from just 4% in the previous edition—indicating a growing focus on making crypto-assets accessible to a broader customer base (cf. Exhibit 31).

**Exhibit 31.** Which segment would experience growth over the next 5 years?

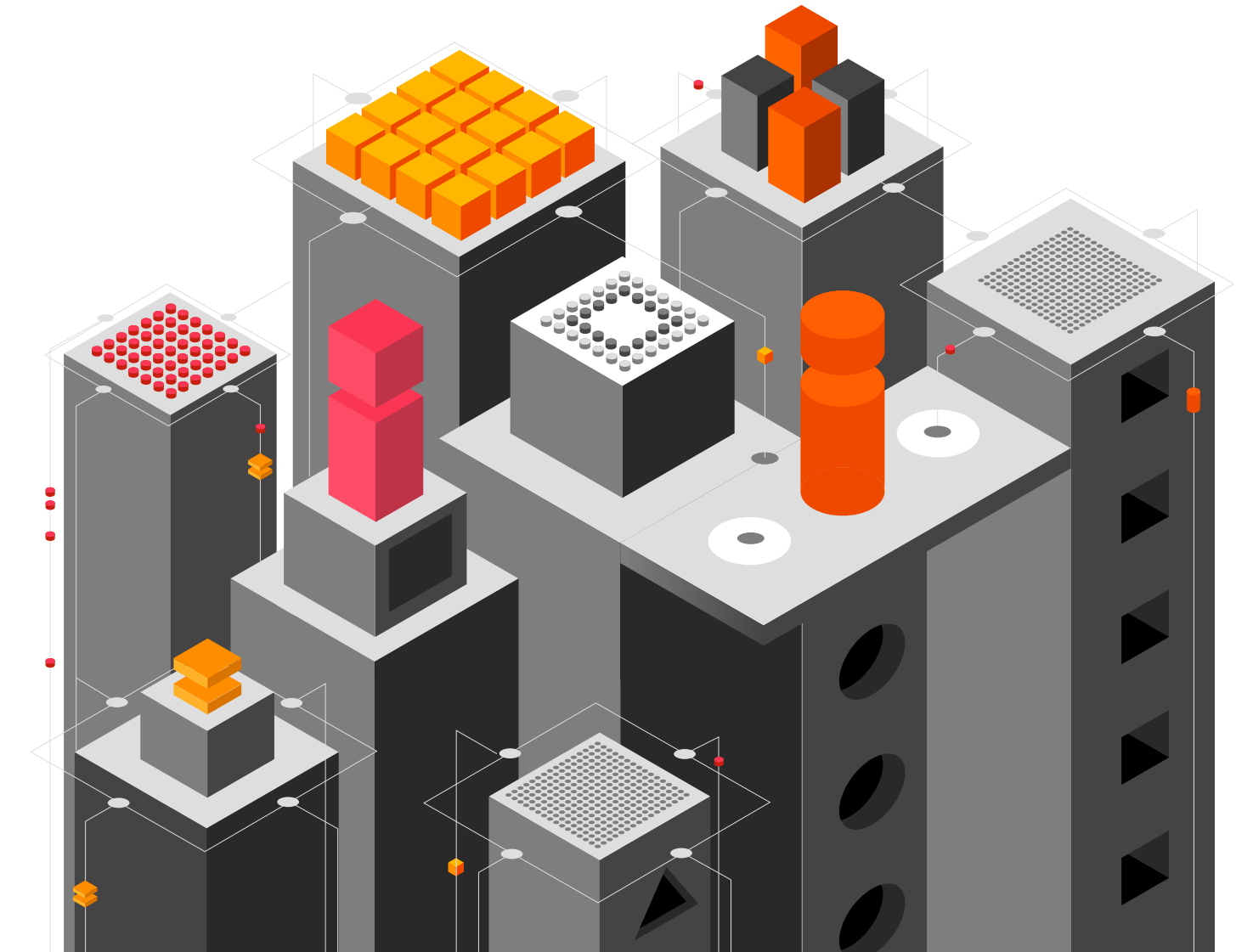


Note: multiple choice question.  
Source: PwC Global AWM & ESG Research Centre



The global crypto market is growing, with strong retail adoption. In Luxembourg, over 14% of residents hold crypto, reflecting solid engagement. However, institutional adoption is still in the early stages.”

**Julien Wolff**, Executive Manager & Head of Risk Management, 6 Monks



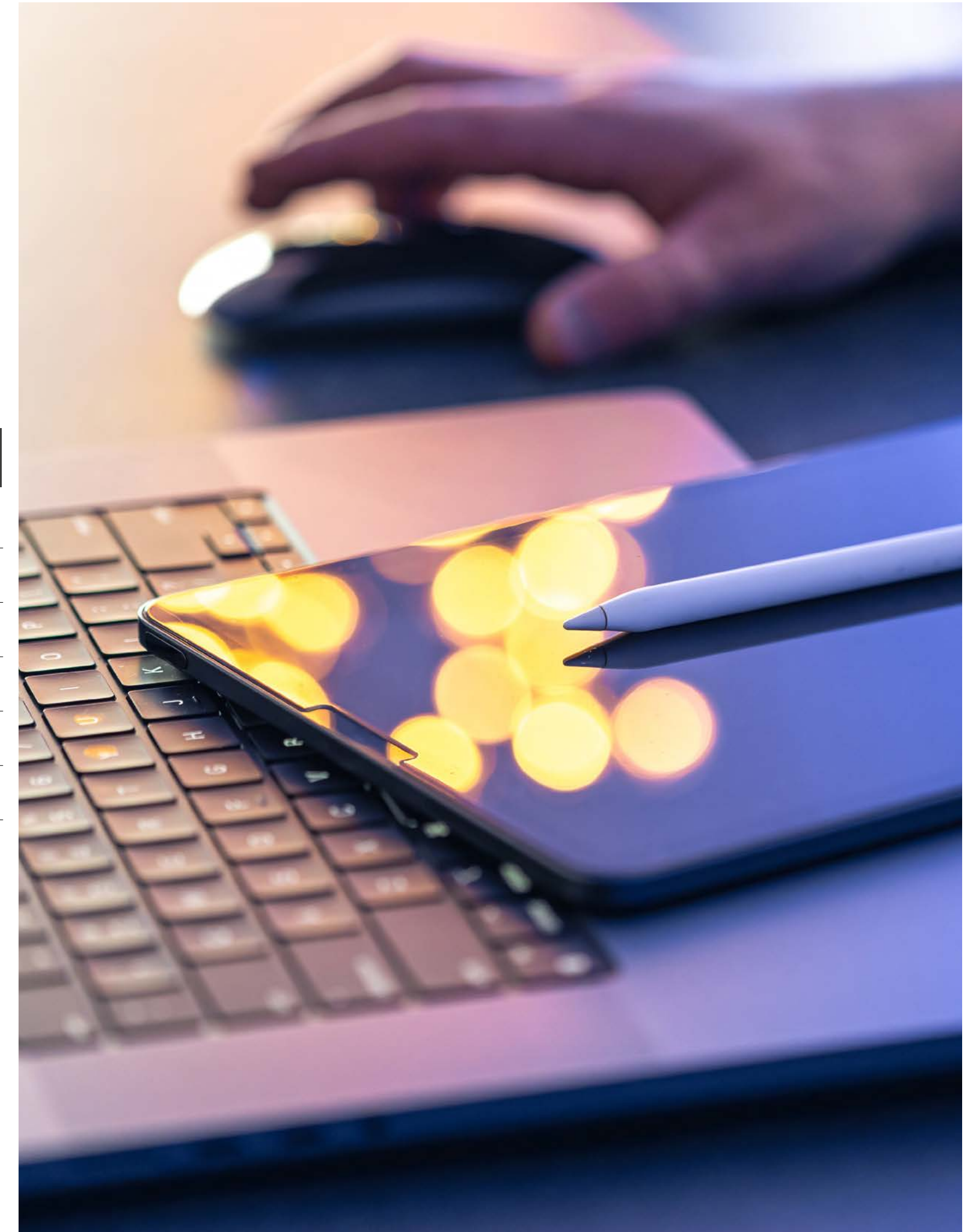
As the market expands and more traditional financial services adopt crypto-assets, ensuring that investors are equipped with the knowledge to fully understand this evolving space becomes crucial. Compared to the 2023 edition, where over half of the respondents emphasised the importance of adequate financial education for customer protection, this year's survey shows a 12% decline. One possible reason could be the introduction of MiCA, which requires CASPs to ensure their staff have the necessary knowledge and competence regarding crypto-assets, potentially leading to a perception that customer protection is better managed through regulation rather than solely relying on financial education.

Conversely, the percentage of respondents who believe the need for financial education should be strengthened, yet are undecided on the specific approach, has increased by 7% compared to 2023. Similarly, the proportion of respondents advocating for the implementation of a MiFID-like questionnaire has risen by 6% (cf. Exhibit 32).

**Exhibit 32.** Do you think that there is a need to strengthen the financial education of investors on the crypto-assets topic?

	2023	2025
Yes, it is an absolute imperative to ensure customers protection	53%	41%
Yes, but I don't have strong views on a particular approach	25%	32%
Yes, a MiFID-like questionnaire shall be imposed prior to any investment	15%	21%
No, I don't think it would have any impact	5%	3%
No opinion	2%	3%

Note: the percentages may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre



Looking ahead, several developments are expected to shape the crypto-assets industry over the next 12 to 24 months. The most significant anticipated change, cited by 21% of respondents, is the potential adoption of Bitcoin as a strategic reserve by the US administration, a move that could influence other regions and accelerate institutional adoption.

The increasing involvement of traditional financial institutions, particularly asset managers and banks launching dedicated crypto-focused services, follows closely, with 19% expecting this trend to drive further market expansion.

Beyond institutional growth, the tokenisation of real-world assets—such as real estate, art, and commodities—is gaining traction, with 17% of respondents highlighting its integration into mainstream investment portfolios as a key development. Regulatory advancements are also expected to shape the landscape, with 13% anticipating the inclusion of crypto-assets in UCITS funds as a step toward broader legitimacy. Additionally, 12% believe that the emergence of harmonised regulatory frameworks in key jurisdictions will reduce uncertainty and create a clearer path for compliance and innovation (cf. Exhibit 33).

**Exhibit 33.** What is your most anticipated development in the crypto-assets industry over the next 12-24 months?

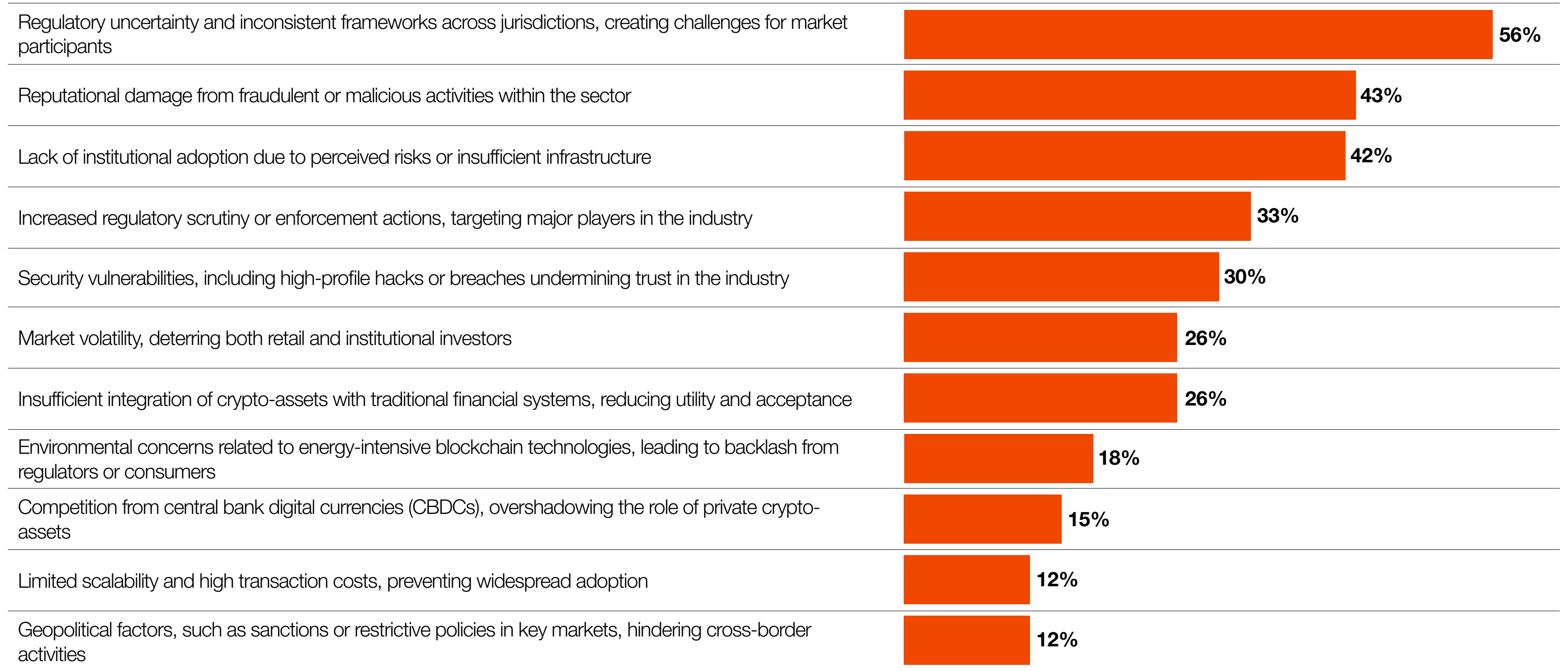


Note: the percentage may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre

Despite a promising outlook, the industry still faces several risks that could slow its growth. Regulatory uncertainty remains the top concern, cited by 56% of respondents, as varying regulatory approaches across jurisdictions create compliance challenges for market participants. The lack of globally harmonised standards further complicates how crypto-assets are classified, taxed, and regulated, making it more challenging for businesses to operate across multiple regions. Reputational risks, highlighted by 43% of respondents, continue to be a major hurdle. Past cases of fraud, financial misconduct, and market manipulation have fuelled negative public perception and increased institutional hesitation.

Beyond these, institutional adoption continues to face challenges, as concerns over security vulnerabilities, infrastructure limitations, and compliance risks persist. Increased regulatory scrutiny targeting major industry players has also contributed to a cautious approach by financial institutions. Addressing these risks through clearer regulatory frameworks, strengthened security measures, and improved industry governance will be essential for fostering sustainable growth in the crypto-assets market (cf. Exhibit 34).

**Exhibit 34.** What do you perceive as the greatest risks to the growth and development of the crypto-assets industry over the next 12-24 months?



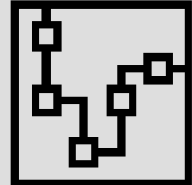
Note: multiple choice question.

Source: PwC Global AWM & ESG Research Centre



# Tokenised

# assets



Building upon crypto-assets underlying technology (distributed ledger technology “DLT”, a.k.a. blockchain), tokenised assets refer to traditional assets recorded on a DLT infrastructure and hereby benefiting from features exclusive to crypto-assets so far.

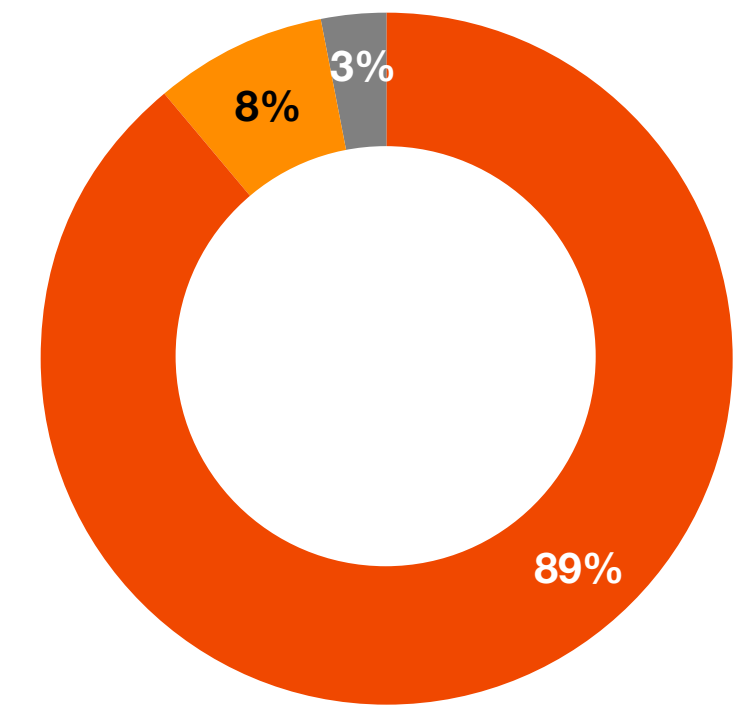
In so doing traditional assets are therefore “augmented” and benefit - among other things – from near instant settlement, fractionalisation and programmability features. These have the potential to transform the asset

management industry as we know it today and make it much more efficient operationally while creating the condition for an enhanced investors experience.

For these reasons, asset tokenisation already appears as a critical topic and/or a priority for many market participants and we expect this trend to accelerate in the short to mid-term. (cf. Exhibit 35).

New question

**Exhibit 35.** How would you assess the importance of tokenisation for the future of asset management in Luxembourg?



■ Important ■ Limited ■ Don't know / No opinion

Note: the percentage may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre

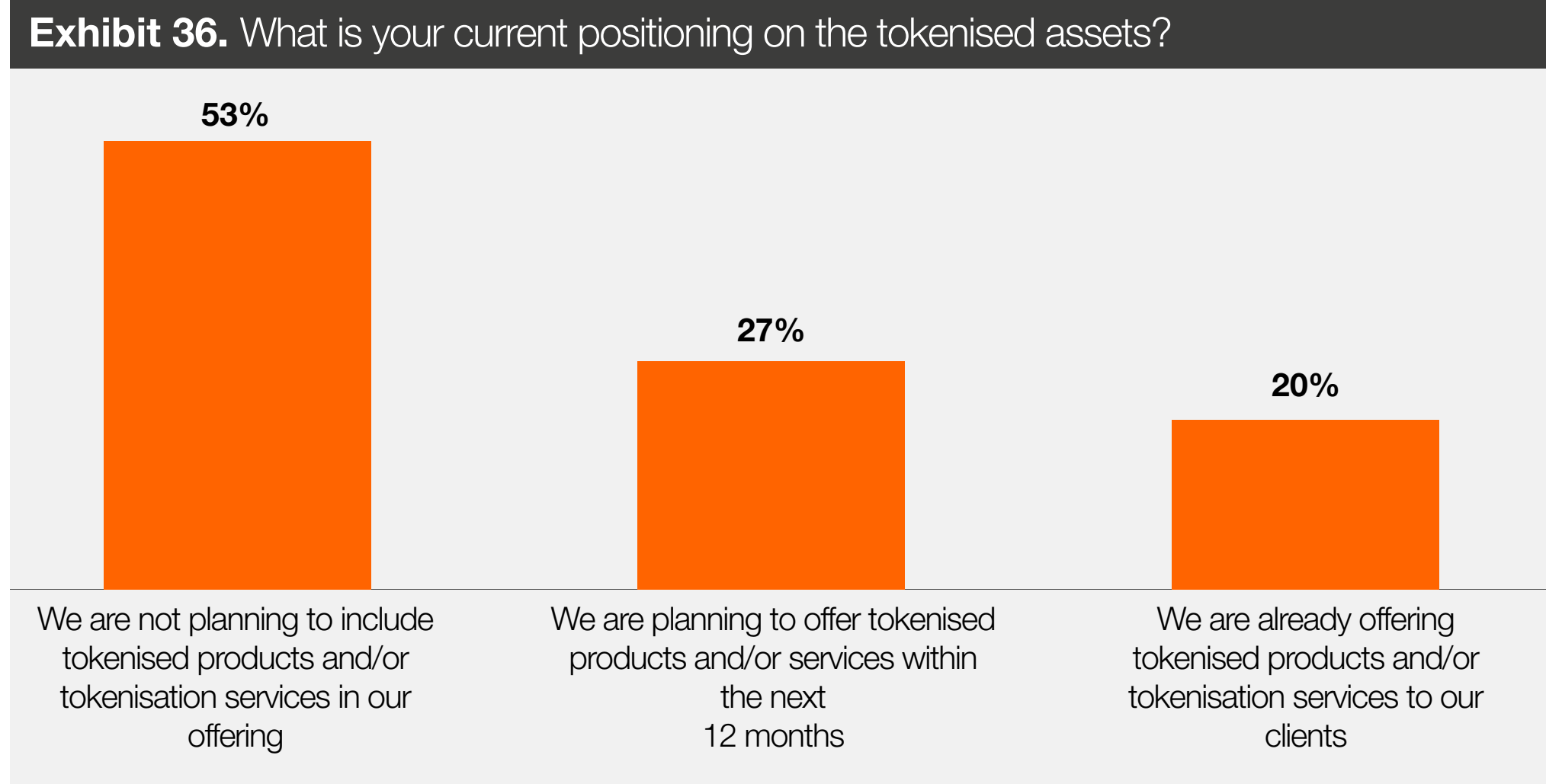
“ Luxembourg is already a leading global hub for tokenised securities. [...] With a complete ecosystem in place and a knowledgeable regulator, projects can accelerate time to market, from inception to production.”

Luc Falempin, CEO, Tokeny

# 05

Despite this, our sample shows a divided outlook, with just over half of respondents indicating that they are not planning to incorporate tokenised products or services in their offerings. In contrast, 20% have already integrated them, while 27% plan to do so within the next 12 months (cf. Exhibit 36).

New question



Note: the percentage may not add up to 100% due to rounding.  
Source: PwC Global AWM & ESG Research Centre

## Tokenised assets

Asset tokenisation plays a crucial role in traditional finance transformation by allowing market players to create digital representations of any type of asset in the form of tokens. These tokens can be easily bought or sold on a blockchain or other forms of DLT, opening an entirely new set of opportunities in the fields of investing, borrowing, lending and more.

Almost any type of asset is eligible for going through a tokenisation process. Examples span from traditional assets, such as physical assets like real estate or art, financial assets including equity shares, bonds, commodities, real estate and mutual funds units to intangible categories like intellectual property or even identity and data.

The tokenisation procedure typically involves four different steps. First of all, it is necessary to understand how the asset in question will be tokenised, clarifying the applicable regulatory framework and whether the asset will be treated as a financial instrument or not. Secondly, the counterparties choose a token standard, a network and the compliance functions useful to create a digital representation of the asset on a DLT. If the digital asset has a physical underlying, the latter must be stored in a safe facility. Once the token has been created it will be stored in a digital wallet and traded on regulated official exchanges where available. As a final ongoing step, asset servicing and data reconciliation activities like regulatory, tax, and accounting reporting will be performed.

Tokenisation potential benefits include faster transaction settlement, fuelled by 24/7 operations and data availability. It also increases operational cost savings for assets that typically involve manual servicing or issuing, which are often prone to errors. Additionally, tokenisation provides cheaper and more agile infrastructure for managing assets and democratises access to assets

that were previously restricted to smaller investors. Finally, it enhances transparency through smart contracts, self-executing agreements which define instructions that are automatically carried out under predetermined conditions. However, the legal recognition of smart contracts varies across jurisdictions. In the EU, Article 30 of the 2023 Data Act sets key requirements that smart contracts must have. Despite this, on a country-specific basis, only Italy and France have fully recognised their legal validity. In the US, frameworks like the Uniform Electronic Transactions Act (UETA) and the Electronic Signatures in Global and National Commerce (E-SIGN) Act support enforceability, with some states offering explicit recognition, while in the UK, the UK Jurisdiction Taskforce (UKJT) has affirmed their validity as legally binding contracts.

Despite these promising benefits, asset tokenisation has still some work to do before it establishes its presence in the financial ecosystem in light of the significant hurdles it faces, especially in terms of regulatory framework and technological implementation. The regulatory landscape is still rather fragmented among jurisdictions and in continuous evolution, posing an obstacle to the adoption of asset tokenisation on a large scale. Unlocking the full potential of tokenisation also requires the resolution of significant technological challenges which are still hindering its development, like standardisation, interoperability, and settlement finality.



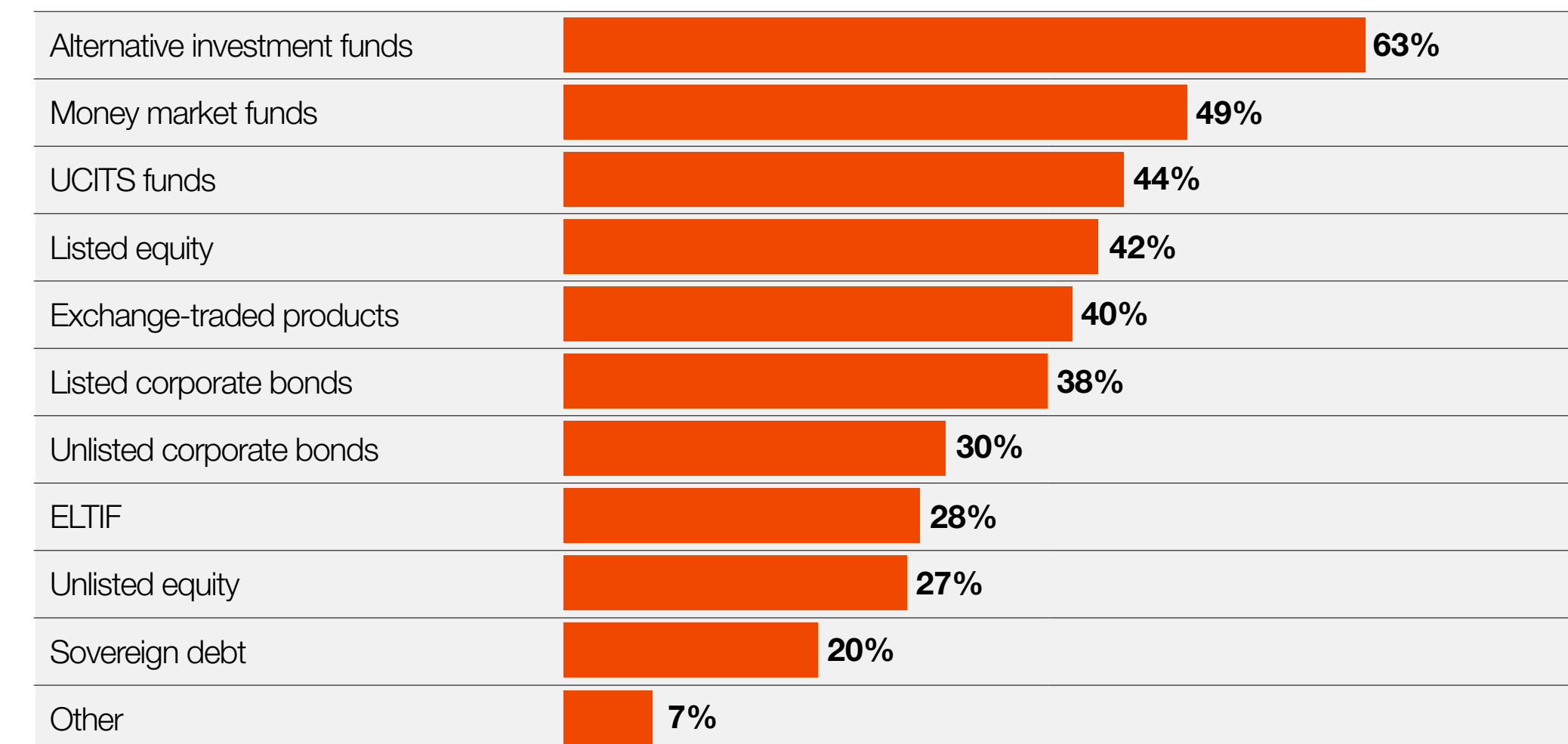
As the industry explores the potential of tokenisation, it becomes crucial to identify which assets are seen as most suitable for its application. Among our sample, 63% of respondents consider alternative investment funds the most relevant for tokenisation, highlighting their potential to improve accessibility and efficiency in the market.

Money market funds are identified by 49% of respondents, followed by UCITS funds at 44%. These assets are currently seen as an ideal candidate for tokenisation due to their robust regulatory framework and potential use in the emerging onchain securities financing business. Listed equity follows closely, with 42% of respondents viewing it as a relevant asset for tokenisation.

In addition, there is a strong interest in tokenising exchange-traded products (40%) followed by listed corporate bonds and unlisted corporate bonds, at 38% and 30%, respectively (cf. Exhibit 37).

New question

### Exhibit 37. In your opinion, what are the most relevant assets to be tokenised?



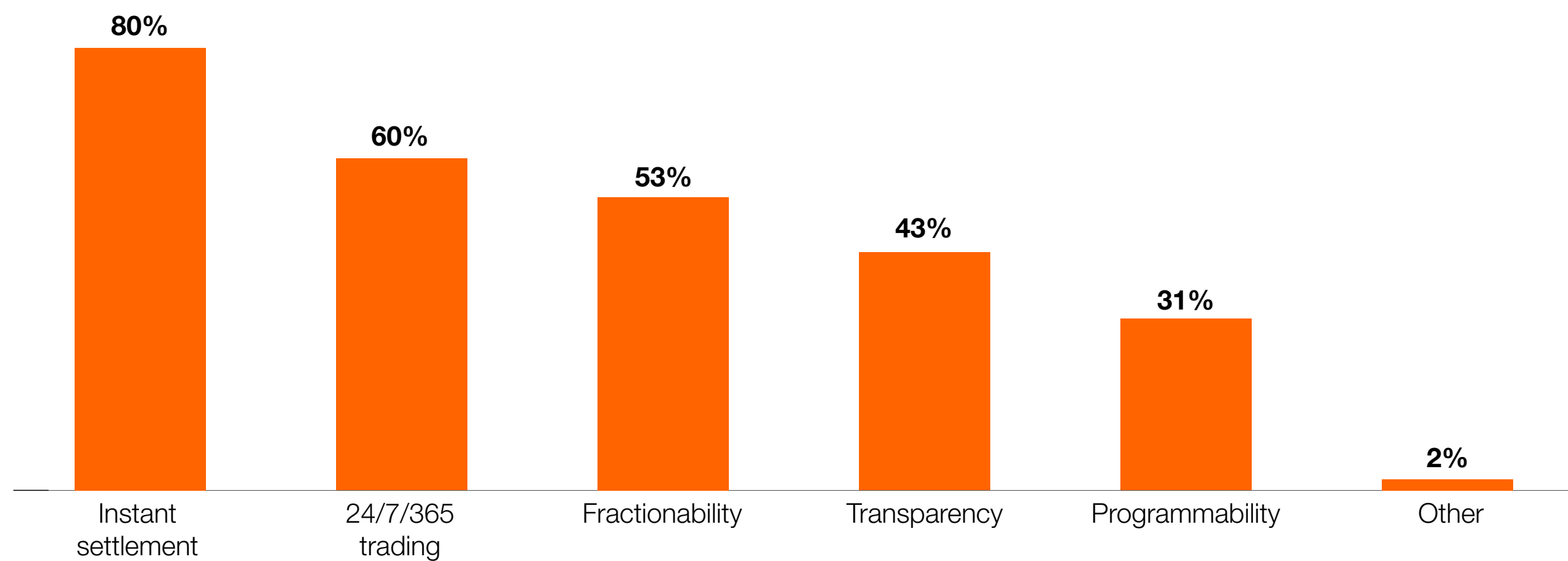
Note: multiple choice question.

Source: PwC Global AWM & ESG Research Centre

Among the benefits of tokenised assets, instant settlement emerges as the most impactful advantage, with 80% of respondents recognising its significance in streamlining transactions and reducing settlement risks. 24/7/365 trading is also a key feature, with 60% citing it as a way to increase market access and liquidity. Fractionability follows closely, with 53% identifying its role in making traditionally high-value assets more accessible to a broader range of investors (cf. Exhibit 38).

New question

**Exhibit 38.** What feature(s) of tokenised assets do you believe is/are the most impactful or transformative for the asset management industry and/or investors?



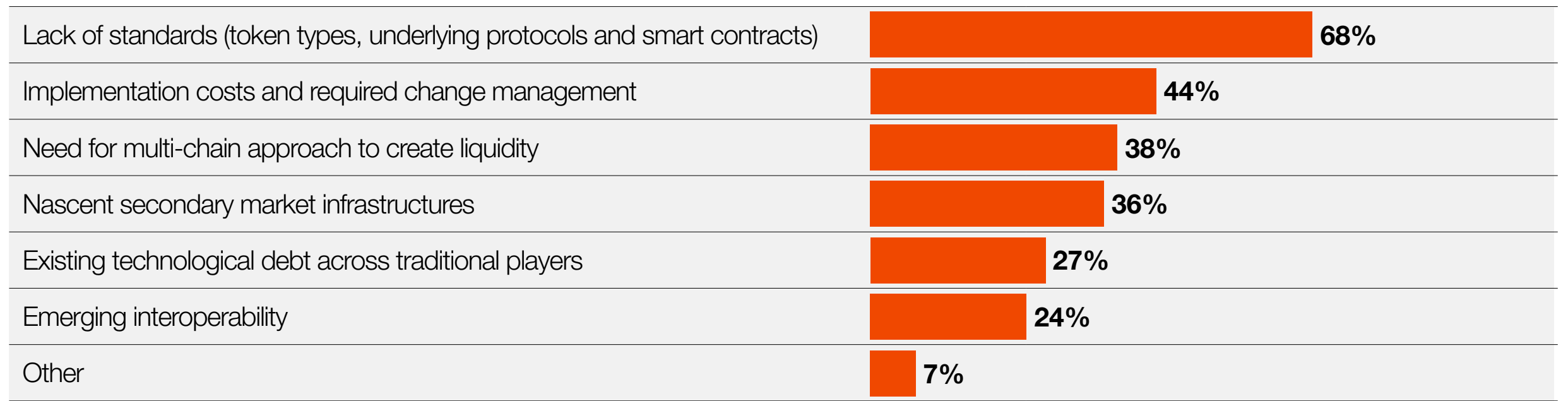
Note: multiple choice question.  
Source: PwC Global AWM & ESG Research Centre

Despite the promise of tokenisation, there are still challenges to be addressed. A significant concern, highlighted by 68% of respondents, is the lack of standards in token types, underlying protocols, and smart contracts, which complicates interoperability and integration across platforms. Additionally, 44% cite implementation costs and the extensive change management required as key barriers, making the transition to tokenised systems resource-intensive.

New question

The need for a multi-chain approach to enhance liquidity, noted by 38%, adds another layer of complexity, as firms must manage multiple blockchain networks efficiently. Furthermore, secondary market infrastructures remain underdeveloped, with 36% of respondents identifying this as a challenge, limiting liquidity and broader investor participation as of now (cf. Exhibit 39).

**Exhibit 39.** What are the key challenges faced by asset tokenisation as of today?



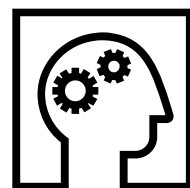
Note: multiple choice question.  
Source: PwC Global AWM & ESG Research Centre

“We expect a standardised ecosystem enabling seamless tokenisation, cross-application usage, and compliant open distribution, paving the way for real-world adoption at scale.”

Luc Falempin, CEO, Tokeny

## Call to action

1



### Foster local expertise

Address the gap in local expertise by investing in education, training, and talent development within Luxembourg's crypto-assets service provider ecosystem. This would help build a more knowledgeable workforce and improve the overall capacity of the market. Efforts could focus on enhancing industry-specific educational programmes and providing long-term support for talent development, ensuring the ecosystem remains competitive.

64%

of respondents cite limited local expertise as a major constraint for growth.

2



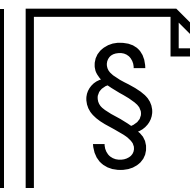
### Encourage proactive involvement

Luxembourg should take a more active stance in the global crypto-assets industry by engaging stakeholders, creating supportive policies, and building strategic partnerships to drive market growth and further attract new entrants.

76%

emphasise the importance of Luxembourg's active involvement, up from 58% in 2023.

3



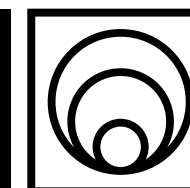
### Support regulatory clarity

Greater regulatory certainty and harmonisation across jurisdictions would help reduce uncertainty and encourage institutional adoption of crypto-assets. Clear and consistent regulation offers a predictable environment for businesses and investors, making it easier to operate in the global market. Continued efforts in this direction supported by practical guidelines and/or FAQs could significantly boost the confidence of market participants, attracting further investment and fostering growth.

56%

of respondents highlight regulatory uncertainty as a top concern.

4



### Develop market infrastructure

Investing in the development of reliable and scalable crypto-assets infrastructure would enhance the efficiency and security of the market. As the crypto-asset ecosystem expands, having a robust infrastructure in place becomes critical for handling increased transaction volumes and supporting new technologies.

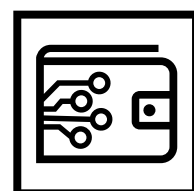
59%

believe crypto-market infrastructure is still immature, though this represents an improvement from 73% in 2023.

# 06

## Call to action

5



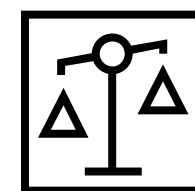
### Transform asset management through tokenisation

Encouraging businesses to explore and/or adopt tokenisation can be achieved by supporting the development of clear industry standards, protocols, and frameworks. Establishing these standards would help unlock new opportunities for businesses and investors while ensuring the long-term sustainability of the tokenisation market.

68%

cite the lack of standards in token types, protocols, and smart contracts as a primary challenge.

6



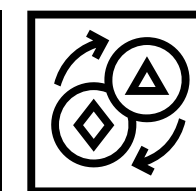
### Increase political attention

Amplifying political focus on crypto-assets appears crucial to ensure that Luxembourg stays aligned with evolving global policies and remains competitive in the crypto-assets industry given the recent developments in the US and the particular attention given to the topic by the new elect administration. As many countries adapt their legal frameworks to accommodate crypto-assets, political engagement will help maintain a favourable regulatory environment. Greater attention could also strengthen Luxembourg's ability to attract international investment and talent in the crypto sector.

28%

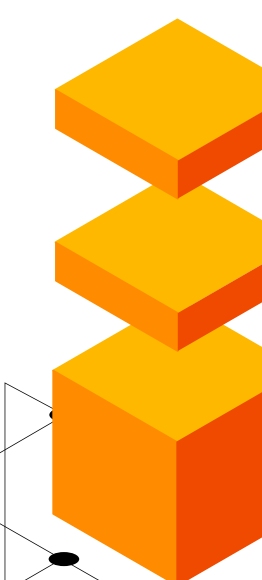
expect more political focus on crypto-assets globally in the next 12 months.

7



### Avoid polarisation between crypto-assets and tokenised assets

Both topics are more often than not perceived as mutually exclusive and/or opposed by market participants. As the recent technological, regulatory and market developments have demonstrated, both topics are not only complementary but also tend to converge over time, strengthening use cases value proposition. It appears critical for Luxembourg to develop and reinforce its positioning and footprint in both areas to ensure competitiveness with other financial centres.





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