CAMBRIDGE **SUPTECH LAB**

STATE OF SUPTECH REPORT 2024

EXECUTIVE SUMMARY

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This Executive Summary provides a preview of the key findings and insights from the State of SupTech Report 2024. The full report will be published soon.

The State of SupTech Report 2024 delivers a comprehensive global analysis of supervisory technology (suptech), covering its diverse use cases, the enablers and barriers tied to digital infrastructure and technologies, and the critical change management processes integral to the digital transformation of supervisory agencies. The report also explores the strategies and methodologies employed in developing and deploying suptech applications, alongside the challenges and risks associated with their implementation.

The Report is grounded in a robust dataset, incorporating feedback from 127 financial authorities across 97 countries on six continents. These authorities include central banks, securities and capital market regulators, financial conduct authorities, pension regulators, insurance supervisors, and other regulatory and supervisory bodies. This broad participation provides a well-rounded view of how suptech is reshaping financial supervision worldwide.

Adding depth to this analysis, the Report integrates industry perspectives through a targeted questionnaire completed by 23 qualified suptech vendors. These responses capture valuable insights into the current state of suptech, emerging trends, and industry challenges, providing a balanced view of the ecosystem from both supervisory authorities and solution providers.

The Report also leverages insights from the Cambridge SupTech Lab's SupTech Marketplace, a dynamic online repository cataloging supervisory technology solutions and their global applications. This resource enhances the analysis by mapping suptech innovations, adoption rates, and use cases across jurisdictions, providing a real-time pulse on the evolving suptech landscape.

By synthesising these diverse perspectives, the State of SupTech Report 2024 offers an unparalleled lens into the transformative role of suptech in financial supervision, equipping stakeholders with the insights needed to navigate the complexities of the modern regulatory environment.

Building on data from the State of SupTech survey 2023 and 2022, this year's Report presents year-on-year (YOY) and longitudinal analysis, offering a consistent narrative of suptech adoption and innovation over time. Notably, the 2024 survey adopted a narrower definition of suptech, focusing on the most advanced, technology-powered solutions. Despite this refined scope, the findings reveal clear insights and consistent trends that highlight the evolution of suptech globally.

HIGHLIGHTS FROM THE STATE OF SUPTECH REPORT 2024

SUPTECH ADOPTION AND STRATEGIC DEVELOPMENT

- **Suptech goes global**. Over half the world embraces technologies and data science tools to enhance financial supervision. A total of 164 financial authorities in 105 countries have live suptech implementations.
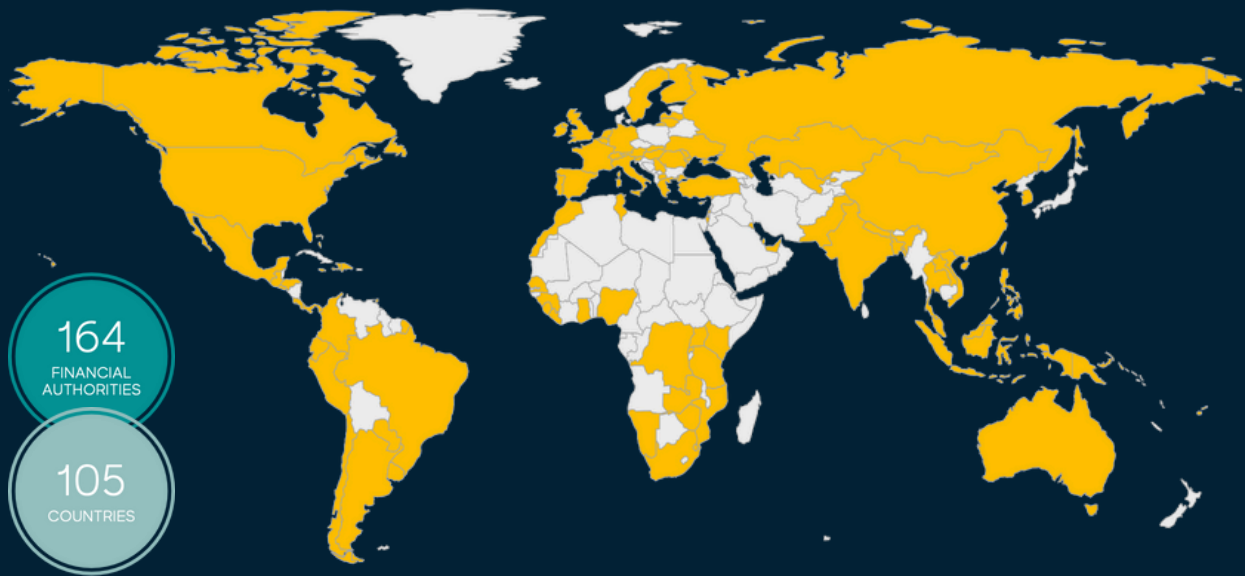
- **Closing the gap**. Emerging economies progress in suptech adoption. Advanced economies maintain a lead, with 75% of authorities reporting one or more applications in operation compared to 58% in emerging markets and developing economies. While this reflects a 17% adoption gap, the difference has steadily narrowed from 25% in 2023 and 19% in 2022 – indicating a gradual convergence in adoption rates. One key factor contributing to the lag in emerging markets and developing economies is their slower implementation of digital transformation strategies. Only 33% of authorities in these regions report having such strategies, compared to 50% in advanced economies. These strategic frameworks are critical in enabling the broader deployment of suptech applications by providing a foundation for innovation and resource allocation. Encouragingly, financial supervisors in emerging markets and developing economies are making significant progress in bridging this gap. Nearly half of the surveyed authorities are actively developing digital transformation plans, underscoring their recognition of the importance of these strategies. As these plans materialise, they are expected to drive greater adoption of suptech tools, enhancing supervisory capabilities and supporting a more level playing field across jurisdictions.

- **Suptech expands beyond core supervisory areas**. The use of suptech is steadily expanding across a broadening array of supervisory areas. Prudential supervision remains the focal point, with 66% of respondents with a suptech solution prioritising it, followed closely by AML/CFT/CPF (62%) and consumer protection and market conduct supervision (54%). However, financial authorities are increasingly channeling efforts toward other critical domains, including cyber risk detection and monitoring (46%) and climate/ESG reporting (30%), alongside emerging sectors such as insurance supervision (49%) and securities supervision (43%). Notably, there has been an 8% increase in focus on cyber applications and a 15% growth in climate-related applications compared to 2023. These shifts reflect the growing urgency to address the complexity and scale of emerging risks, and signal a dynamic evolution in suptech adoption to meet the demands of a rapidly changing risk landscape.

- **Suptech delivers**. 80% of authorities cite improved risk detection, data accuracy, and decision-making, with emerging market and developing economies leading the charge. 82% of respondents report the effectiveness of suptech in enhancing their ability to detect and mitigate risks, 77% of respondents find suptech effective in improving the accuracy and reliability of supervisory data, and 80% in enhancing their data-driven decision-making and saving time in supervision processes. Instances where the full potential of suptech has yet to be realised likely reflect systemic challenges such as legacy IT systems, insufficient technical expertise, and fragmented institutional strategies. Authorities in emerging market and developing economies report more substantial outcomes across various supervisory tasks compared to their peers in advanced economies.

TECHNOLOGIES AND THE DATA JOURNEY

- **Financial supervision increasingly embraces cutting-edge tech**. In 2024, there was an increase in the adoption of 3rd and 4th generation (3G-4G) technologies such as big data (30% in 2024 vs 21% in 2023), and prescriptive and predictive analytics tools (42% in 2024 vs 44% in 2023). The integration of artificial intelligence (AI), including GenAI, into suptech applications demonstrates a clear upward trend, as authorities are increasingly experimenting with AI-enabled tools and technologies. Agencies are exploring and piloting AI tools (60%) to enhance supervisory processes, with many prioritising initial research (33%) and pilot projects (27%) over full-scale implementation. GenAI has also seen notable growth in adoption, more than doubling in reported usage between 2023 (8%) and 2024 (19%). While most agencies remain in the early stages of integrating GenAI technologies at institutional level, the steady progress emphasises their commitment to leveraging these solutions to address the complexities of modern financial supervision.

Overall AI maturity, however, shows a clear divergence between advanced economies and emerging markets and developing economies, with the former leading in pilot projects and widespread deployment, while emerging markets and developing economies focus more on initial exploration and limited integration of AI solutions.

- **Data protection, privacy concerns, and data governance remain top barriers in AI adoption**. Over 60% of the respondents cite data protection, privacy concerns, and governance as the top barriers to AI adoption, alongside challenges like employment and skill gaps (54%).

ENABLERS AND CHALLENGES

- **Strategic planning fuels suptech success**. Agencies with defined strategies lead in advanced suptech deployment. The successful implementation of live suptech applications is significantly bolstered by the presence of a clear and well-defined suptech, data governance, or digital transformation strategy. Agencies with a suptech strategy, whether fully established or in development, consistently report greater deployment of suptech applications. In 2024, 32% of financial authorities indicated they had a suptech strategy, marking a notable increase from just 9% in 2023. The impact of strategic planning is clear: 14% of agencies with a formal suptech strategy have more than five suptech applications in operation, compared to only 3% of agencies lacking such a framework. Broader strategic approaches, such as data governance or digital transformation strategies, also offer substantial benefits. Agencies with these comprehensive frameworks are more than twice as likely to have deployed five or more suptech applications compared to those without any strategy.

- **The adoption of suptech is met with a range of challenges, with steps being taken to address many of them**. Limitations in data analytics (63%) and technical IT skills (60%), a lack of coordination with other agencies to access their data sets (48%), and budgetary constraints (51%) are reported as primary barriers to implementing suptech. Financial authorities are making strides in addressing the skills gap through ongoing capacity building and education efforts: 67% of respondents report using training programmes, while 48% engage in peer engagements to upskill their teams. To ensure the successful integration of suptech within regulatory frameworks, authorities are implementing initiatives such as collaborations with industry players (44%). But limited funding remains a persistent challenge, with nearly a third (32%) of the agencies lacking dedicated suptech budgets, constraining innovation, development and deployment.

- **Procurement challenges continue to stifle suptech innovation.** Procurement processes remain a significant barrier to the development and deployment of suptech applications, with 44% of financial authorities identifying them as a key obstacle. Notably, advanced economies report even greater difficulties, with 58% highlighting procurement challenges compared to 39% in emerging market and developing economies. This disparity may stem from the more complex and lengthy procurement protocols often found in advanced economies, which can hinder the agility needed for suptech innovation. The challenge is further underscored by vendor perspectives captured in this year's report. An overwhelming 87% of vendors in 2024 cited procurement processes as a barrier to engaging commercially with financial authorities, a sharp increase from 67% in 2022.

- **Mindset matters**. Bridging the innovation gap in suptech adoption. A gap in mindset and approach is limiting the pace of innovation in suptech adoption. While innovative methods like leveraging innovation hubs (17%) or participating in techsprints and hackathons (14%) offer opportunities for experimentation and collaboration, they remain underutilised by financial authorities, reflecting a broader need for a cultural shift within the supervisory ecosystem. To unlock the full potential of suptech, authorities must cultivate an environment that prioritises experimentation, agility, and partnerships with diverse stakeholders.

- **Financial authorities use a mix of in-house development and external vendors, challenging the buy vs build dichotomy**. On one hand, 68% of the financial authorities used in-house IT departments and 35% in-house consultants to develop their suptech applications. On the other hand, many authorities also rely on external support as half of them replied that they have purchased software or hired a vendor. Both advanced economies (67%) and emerging markets and developing economies (69%) demonstrate a strong reliance on in-house capabilities.