

PRESS RELEASE – For immediate release

HSBC pioneers Quantum protection for AI-powered FX trading

HSBC has become the first bank to pioneer quantum protection for AI-powered foreign exchange trading. As one of the world's largest foreign exchange providers¹, HSBC is leading the way in exploring how quantum cryptography can safeguard highly sensitive trading data against possible cyber threats as powerful as future quantum attacks.

In a world-first trial, HSBC armed its award-winning [HSBC AI Markets](#)² trading terminal with unprecedented quantum protection, using Quantum Key Distribution³ to safeguard a €30 million trading scenario from Euros to US dollars. As this technology matures into a commercially accessible and globally scalable solution, HSBC has proven it will have the power to safeguard trades of any value from quantum attacks.

CEO of HSBC Bank Plc and HSBC Europe, Colin Bell, said:

“The quantum revolution is not on the horizon; it’s already here. By investing and experimenting in quantum technologies now, HSBC is not just preparing for the future; we’re shaping it.

“Today’s trials will define tomorrow’s triumphs. Successfully pioneering quantum protection for our FX trading is a significant step with far-reaching implications for the blueprint of our future cybersecurity.

“We are determined to do whatever we can to protect our customers assets, both now and in the future. This trial marks an important step in this commitment”.

With this milestone, powered by BT, Toshiba and Amazon Web Services (AWS) technology, HSBC reaffirms its unwavering commitment to staying ahead of the technological curve and ensuring the utmost protection for its customers’ and clients’ assets in the quantum era.

Electronic trading has transformed financial transactions - providing traders and investors unprecedented speed, efficiency, and access to global markets. HSBC processed 4.5 billion payments for their customers last year, worth an estimated value of £3.5 trillion.

The increasing threat of cyber-attacks and the emergence of quantum computers pose a real threat to the financial sector. Waiting until quantum computers become a reality to address this issue risks leaving financial systems vulnerable, as the transition to quantum-resistant encryption takes time. HSBC is committed to proactive research and development in this area to ensure the continued resilience of its financial systems in an increasingly quantum future.

¹ HSBC were named the third largest FX provider in peer analysis undertaken by Coalition Greenwich.

² [AI Markets](#) uses AI to enable HSBC traders and institutional investors to generate bespoke global financial market analytics, access the bank's real-time and historic cross-asset data sets, and browse the latest market insights.

³ QKD uses particles of light and the fundamental properties of quantum physics to deliver secret keys between parties that can be used to encrypt and decrypt sensitive data. They are safe from eavesdroppers or cyber-attacks by quantum computers.

This work represents an important step towards the UK Government's ambition to enable the commercial viability of quantum communications as outlined in the recent National Quantum Strategy.

HSBC Global Head of FX and Emerging Markets Rates and Commodities, Richard Bibbey said:

“In the world of foreign exchange trading, currency dynamics are evolving faster than ever. Ensuring the security of our client’s data is paramount and we must constantly innovate and stay ahead of the curve.”

“This ground-breaking quantum experiment marks a considerable leap in the world of finance. For the first time, we have leveraged the power of quantum communications to further reinforce our secure trading and transactions.”

HSBC’s quantum scientists, cyber-crime experts and trading specialists will use the valuable insight generated by this experiment to inform how Quantum Key Distribution can be integrated into our most important trading tools to secure them against quantum attacks in the future.

In July, HSBC became the [first bank to join BT and Toshiba’s quantum secure metro network](#), working in collaboration with AWS - installing quantum infrastructure in their Global Headquarters in Canary Wharf that spans 63km via fibre-optic cables to their data centre in Slough.

HSBC Holdings plc

HSBC Holdings plc, the parent company of HSBC, is headquartered in London. HSBC serves customers worldwide from offices in 62 countries and territories. With assets of \$3,021bn at 30 September 2023, HSBC is one of the world’s largest banking and financial services organisations.