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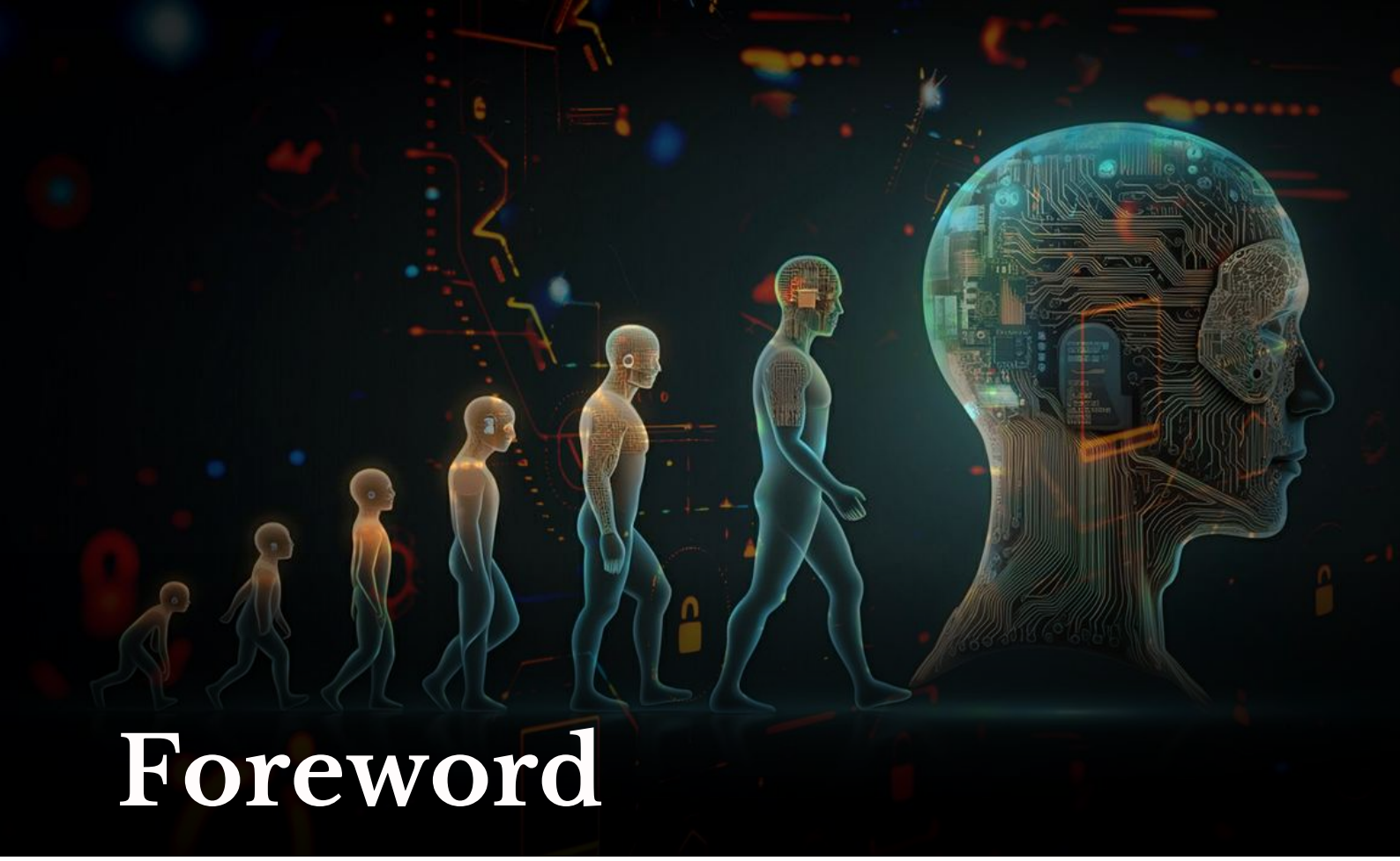
GLOBAL FINANCE & TECHNOLOGY NETWORK

The Evolution of Digital Assets, Artificial Intelligence and European Digital Sovereignty

May 2025



Foreword

Point Zero Forum 2025 convenes at a defining moment for the global financial and technology ecosystem. The pace of innovation across digital assets, artificial intelligence, and next-generation payments is not only reshaping financial markets, it is redrawing the very foundations of trust, governance, and sovereignty in the digital age.

But all this becomes even more urgent in times like these. Europe is waking up between two blocks, increasingly aware of the vulnerabilities that come from deep technological dependencies and shifting geopolitical alliances. Whether it's cloud, data, or financial infrastructure, digital sovereignty is no longer optional. It's strategic. In this volatility lies both a challenge and an opportunity: to form new alliances, build new corridors, and reassert shared values through trust-based global cooperation.

This is where the Point Zero Forum plays a vital role.

More than a global gathering, the Forum has become a high-trust platform for bridging policy and innovation. It brings together central bankers, financial leaders, regulators, and technologists to co-create solutions at the intersection of innovation, inclusion, and governance.

This year, Point Zero Forum takes on added significance as it helps shape the global agenda ahead of South Africa's G20 Presidency (December 2024–November 2025), the first African nation to hold this position. In line with South Africa's priorities, inclusive growth, trustworthy AI, and advancing digital payments globally, the Forum will host dedicated sessions and roundtables to translate policy ambitions into actionable, real-world pathways.

Several key initiatives this year, including Project Agorá, discussions on AI governance, and efforts to combat financial crime through digital identity and tokenisation, directly feed into the G20's 2027 targets for cross-border payments and global digital infrastructure development.

Last year's Forum laid the groundwork by identifying key priorities: regulatory clarity, responsible AI, interoperability, and cross-border alignment. This year, the focus shifts to execution, with clear frameworks, tested solutions, and expanded global participation.

The insights in this report are more than a snapshot. They are a call to action. In an age of growing fragmentation, the Forum reminds us of what still unites us: shared interests, shared risks, and shared responsibility.

Let this be our blueprint for the future.

Welcome to Point Zero Forum 2025.

Matthias Kröner
Managing Partner, EMEA, GFTN

Executive Summary

Europe's digital finance sector is undergoing a profound transformation in 2025, fuelled by regulatory developments, record investments in digital assets and accelerated adoption of artificial intelligence (AI). As of mid-April 2025, digital assets in Europe have attracted US$4.1 billion (B) in investments—already a 133% increase over 2024—driven by major late-stage venture capital deals and a surge in large-scale funding rounds. This growth could be partly attributed to the European Union's regulatory leadership, with the full implementation of the Markets in Crypto-Assets (MiCA) regulation and the Digital Operational Resilience Act (DORA), establishing a robust framework for consumer protection, transparency, and market integrity.

Comparing the different regulatory approaches, Europe emphasises financial stability and strategic autonomy, while the US prioritises innovation-led growth. This divergence is evident in stablecoin regulation, central bank digital currencies (CBDC) development, and AI governance frameworks. The EU's distinctive approach to stablecoins and CBDCs contrasts sharply with the United States, prioritising a digital euro and imposing strict requirements on stablecoin issuers to safeguard financial stability and monetary sovereignty. Meanwhile, the European Central Bank is advancing distributed ledger technology (DLT) settlement initiatives, aiming for seamless interoperability between digital and traditional financial systems.

The EuroStack initiative and Europe's push for digital sovereignty reflect a broader recognition that technology is a source of power, and the rules of engagement are being rewritten. The regulatory and technological choices made today will shape Europe's ability to compete and cooperate on the global stage.

Global regulatory harmonisation remains a challenge, as divergent approaches in the US, EU, and Asia hinder harmonisation of standards. However, efforts such as the International Monetary Fund's (IMF) new digital asset taxonomy and Swift's interoperability trials signal progress toward bridging traditional and digital finance.

Institutional adoption of digital assets is also accelerating, with major financial institutions expanding blockchain-based services and custody operations.

In payments, real-time settlement, biometric authentication, and next-generation technologies are revolutionising user experience and security. Cross-border interoperability is being enhanced through initiatives like BIS Project Nexus and the adoption of ISO 20022 messaging standards.

On the AI front, European Fintech-related AI investments reached US$3B in 2025, with one mega-deal contributing 60% of the total value. A clear risk-based regulatory direction was set by the landmark EU AI Act. While the EU seeks to establish a global benchmark for responsible AI, debates over regulatory stringency and innovation continue, especially as the US and UK pivot towards a lighter-touch or security-focused AI governance.

Collectively, these developments position Europe at the vanguard of digital finance innovation, balancing regulatory rigour with market dynamism and a commitment to technological leadership.

1 Disclosed deals are deals that are announced with investment value

Reflecting on Point Zero Forum (PZF) 2024: Key Takeaways

New Digital Assets Paradigm Takes Shape

After years of proofs of concept and experimental demonstrations, institutional-grade digital assets are taking shape. The mood has matured, focusing on practical adoption over revolutionary change. Interoperability with traditional infrastructure is seen as essential to enabling broader scale and adoption.

Asset tokenization emerged as a pivotal topic, with leaders discussing its potential to revolutionise financial instruments. However, challenges such as interoperability between digital asset networks were noted as significant hurdles to widespread adoption.

Tokenised cash is critical: Settlement of digital assets requires matching tokenised money. Wholesale CBDCs are favoured for their credit risk-free nature.

Fragmentation risks: Public versus private blockchains present trade-offs between accountability and reach, with interoperability being a key challenge.

While start-ups raise concerns about excessive legislation limiting their ability to operate, many are also keen to acknowledge that regulatory clarity is an important condition for businesses in new economic areas to operate effectively. The EU's MiCA has provided a clear foundation on which crypto businesses are able to build operations in their jurisdiction.

Payments: A World in Flux

Wholesale CBDCs over retail: Momentum in retail CBDCs is slowing for most advanced economies, with the exception of Europe; but wholesale applications for improving cross-border payments are still gaining traction.

Tokenisation for efficiency: Projects like BIS's Agorá and mBridge explore how tokenised instruments can streamline cross-border transactions.

Stablecoins making waves: Fiat-based stablecoins offer real-time settlement and inflation protection but face scaling, dollarisation, and limited access to central bank accounts.

Artificial Intelligence: Balancing Innovation and Governance

The Forum highlighted the dual nature of AI in finance—its potential to enhance services and the imperative for responsible governance.

Michael Stemmle, Co-founder and Chief Executive Officer of additiv, said at PZF 2024: “It's sad to see the EU overregulating AI. Legal certainty is good for business, but I don't see why the act was needed, because we already have laws covering the relevant issues. The AI Act risks slowing innovation.”

To facilitate informed conversations at this year's Forum, we discuss the latest developments since PZF 2024 in key areas of Digital Assets, Payments, Artificial Intelligence and European Digital Sovereignty in the chapters below.

Looking ahead with PZF 2025

Digital Assets

Investment Trends and Institutional Adoption

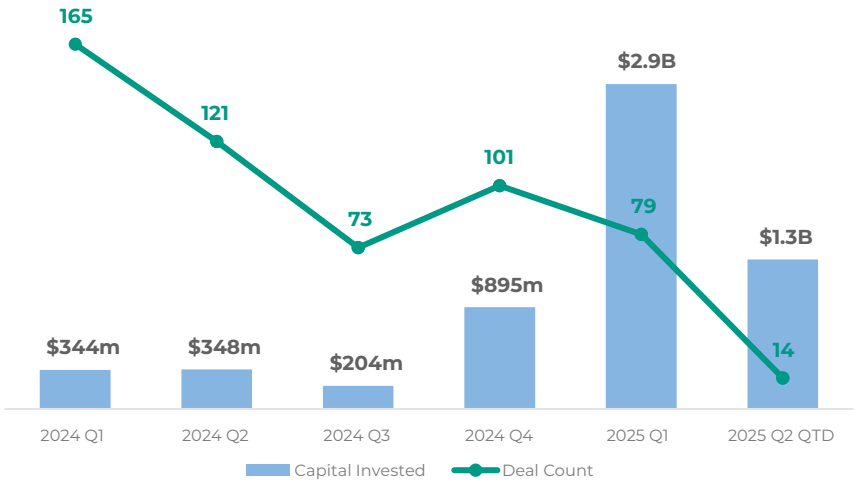
Digital assets in Europe have raised a record US$4.1 billion (B)[1] as of mid-April 2025, which is already a 133% increase from 2024's full year investment of US$1.8B. This compares to the United States' US$1.3B for the same period and US$5.6B for 2024.

Europe's two later stage VC funding mega-deals, Binance's US$2B and DRML Miner's US$1B, contributed 72% to the total amount raised. In addition, there were four large deals worth more than US$100 million (m) – XY Miners' US$300m, Helio's US$175m, Zenmev's US$140m, and Flowdesk's US$102m. In contrast, 2024 saw only two deals that raised above US$100m.

Globally, institutional adoption of digital assets is accelerating, driven by the launch of Bitcoin ETFs in 2024

1 As of 16 April 2025

Chart 1: Europe Fintech Blockchain/Crypto Investments



As of 16 April 2025. Data Sources: Pitchbook, Tracxn, CB Insights; GFTN Analysis.

and growing demand for custody, trading, lending, and asset issuance services.[2] Bitcoin, Ethereum, and Solana exchange trade products (ETPs) have also been listed on Deutsche Börse Xetra and SIX Swiss Exchange. A recent EY Parthenon study reveals that 85% of surveyed global institutional investors had increased allocations to digital assets and digital assets-related products in 2024 while 76% are currently invested in spot crypto or spot crypto ETPs[3].

Major financial institutions, such as JPMorgan Chase and Standard Chartered, are expanding blockchain-based services and establishing new crypto custody operations in Europe to meet institutional and corporate client demand[4], in addition to their current involvement through Kinexys and Zodia Custody.

Current institutional allocations for digital assets range from 1% to 5% globally, but this is expected to rise to 7.2% by 2027, according to an Economist Impact study which found that nearly 70% of institutional investors plan to increase their exposure to digital assets in the next two to three years[5].

Europe's Recalibrated Approach to Digital Assets

Regulatory Leadership and Legal Frameworks through MiCA

The European Union aims to solidify its position as a global leader in blockchain regulation, with the full implementation of the Markets in Crypto-Assets (MiCA) regulation from the end of December 2024 and the Digital Operational Resilience Act (DORA) starting in January 2025. MiCA harmonises rules for crypto-assets, issuers, and service providers across the EU, focusing on consumer protection, transparency, and market integrity. DORA ensures the financial sector is resilient to ICT-related disruptions, safeguarding market stability[6].

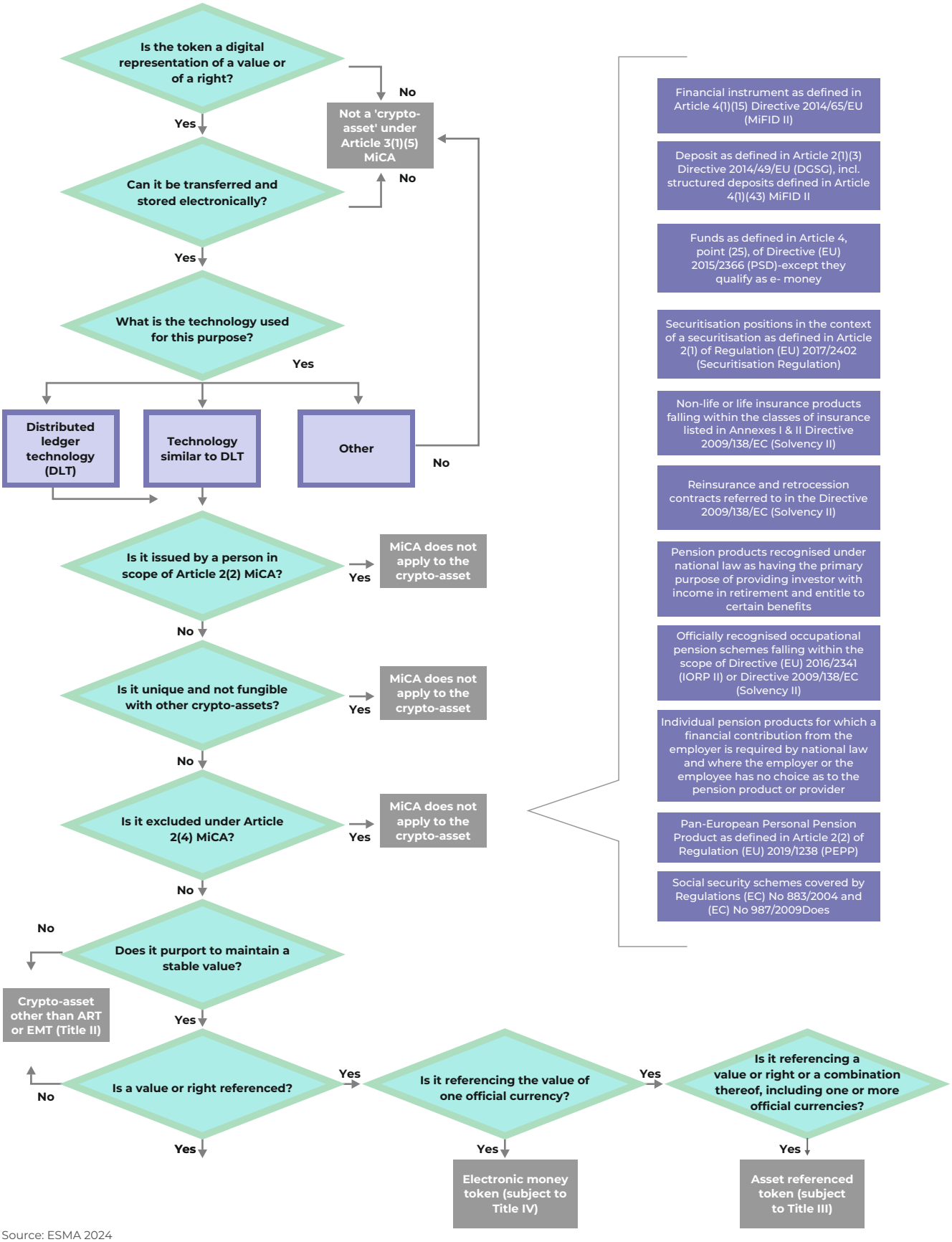
The EU has also introduced legal provisions for smart contracts (via the Data Act) and electronic ledgers (via the EU Digital Identity regulation), providing legal certainty for businesses and consumers[7].

MiCA also integrates the Transfer of Funds Regulation (TFR) "Travel Rule", requiring Crypto Asset Service Providers (CASPs) to collect and transmit sender and receiver information for every crypto transfer to combat money laundering and illicit activity[8]. MiCA, TFR and DORA[9] collectively extend bank-like rules to stablecoins and cryptocurrencies.

In contrast to the clear regulations adopted in Europe, the US regulatory landscape for digital assets is undergoing significant transformation in 2025, marked by policy changes and legislative advancements such as the Financial Innovation and Technology for the 21st Century Act. The approach is shifting from "regulation by enforcement" to clear guidelines that foster innovation while ensuring compliance, as Securities and Exchange Commission (SEC) Chairman Paul Atkins evolves enforcement strategies.

2 https://www.innopay.com/en/publications/digital-assets-road-ahead-2025
3 https://www.ey.com/en_us/insights/financial-services/growing-enthusiasm-and-adoption-of-digital-assets
4 https://www.agg.com/news-insights/publications/digital-asset-and-ai-highlights-early-2025/
5 https://funds-europe.com/70-of-institutional-investors-plan-to-increase-digital-asset-allocation/
6 https://blockchain-observatory.ec.europa.eu/news/eu-blockchain-ecosystem-developments-3-published-eu-blockchain-observatory-and-forum-2024-05-21_en
7 https://digital-strategy.ec.europa.eu/en/policies/blockchain-strategy
8 https://www.innreg.com/blog/mica-regulation-guide
9 DORA, effective since January 2025, imposes strict requirements on EU financial entities to manage IT and cybersecurity risks, including digital asset service providers. Entities must now register key data on ICT service providers and update regulators on digital dependencies, further strengthening the digital finance ecosystem's resilience

Figure 1: MiCA Regulatory Framework Overview



Source: ESMA 2024

Stablecoins and Central Bank Digital Currency (CBDC)

In 2024, the annualised global transaction value of stablecoins hit US$15.6 trillion - roughly 119% and 200% that of Visa and Mastercard, respectively.[10]

The EU has adopted a distinctly different stance from the United States (US) regarding stablecoins and central bank digital currencies (CBDCs). While the new US administration is moving toward supporting dollar-backed stablecoins and expressing scepticism about CBDCs, the EU is prioritising the development of a digital euro (CBDC) and imposing strict regulations on stablecoins, citing concerns about financial stability and monetary sovereignty.

Under MiCA, stablecoin issuers must be authorised in the EU and comply with strict requirements, including publishing an approved white paper, maintaining sufficient liquid reserves (1:1 backing), and ensuring transparency and consumer protection.

MiCA distinguishes between “e-money tokens” (stablecoins pegged to fiat currencies) and “asset-referenced tokens” (backed by other assets), both subjected to stringent oversight[11]. MiCA explicitly prohibits algorithm-based stablecoins and any interest payments or comparable benefits.

The regulation is designed to limit the influence of non-EU stablecoins (especially US dollar-denominated ones) and to prevent regulatory arbitrage, thereby protecting the eurozone's financial system. However, the recent 2025 European Banking Authority's and European Securities and Markets Authority's (ESMA) joint report on developments in crypto-assets indicates that USD-based stablecoins still constitute 90% of market capitalisation and over 70% of trading volume in Europe, this increases currency substitution risks, leading to “digital dollarisation”[12]. The volume of crypto transactions in Europe has remained at 8% since 2022, even as digital payment volumes increase[13], showing low adoption. The EU's approach reflects concerns that stablecoins could undermine monetary policy, create financial stability risks, and facilitate capital flight or loss of control over payment systems[14].

The EU has thus far approved 10 firms to issue stablecoins, which include Banking Circle, Circle, Crypto.com, Fiat Republic, Membrane Finance, Quantoz Payments, Schuman Financial, Societe Generale, StabIR, and Stable Mint. These companies have issued 10 euro-pegged stablecoins and five U.S. dollar-pegged stablecoins. Tether, the world's largest stablecoin by market capitalisation at over US$141 billion, was not on the list.

Conversely, the new US administration issued an executive order in January that prioritises stablecoins as the preferred

Figure 2: Stablecoin regulatory developments by jurisdiction

Jurisdiction	Scope	Reserves and liquidity	Governance and transparency	Other notes
U.S. (proposed)	Asset- and fiat-backed, likely moratorium on algorithmic stablecoins.	100% cash or highly liquid investments in a segregated account, no rehypothecation	Monthly reserve composition examination and certification.	Defers to state laws, when applicable.
EU	Asset- and fiat-backed (including algorithmic).	100% reserve backing; between 30% and 60% in a credit institution, with the remaining in highly liquid investments.	Regular (monthly or quarterly) disclosure and reporting requirements, with certain obligations applicable only above a materiality threshold. Independent audit every six months.	Comprehensive governance frameworks and conflict of interest policies. Stablecoins cannot pay interest.
U.K. (proposed)	The first phase focused on fiat-backed stablecoins.	The proposal requires the issuers to fully back stablecoins with deposits at the BoE.	Fiat-backed payment vehicles would meet the same standards as those applied to commercial bank money, with respect to stability, redemption, legal claims and governance.	Stablecoins cannot pay interest.
Singapore	Fiat-backed Single currency Stablecoin (SCS) (Singapore dollar and G10 currency)	100% very low-risk reserve assets, SCS reserve assets will be subject to requirements relating to their composition, valuation, custody and audit, to give a high degree of assurance of value stability.	Issuers must provide appropriate disclosures to users, including information on the SCS’ value stabilising mechanism, rights of SCS holders, as well as the audit results of reserve assets.	Redemption at Par: Issuers must return the par value of SCS to holders within five business days from a redemption request.

Source: S&P Global, GFTN

10 https://research.ark-invest.com/hubfs/1_Download_Files_ARK-Invest/Big_Ideas/ARK%20Invest%20Big%20Ideas%202025.pdf
11 https://www.bankinghub.eu/topics/stablecoins-cbdc https://www.bankinghub.eu/topics/stablecoins-cbdc
12 https://www.ecb.europa.eu/press/key/date/2025/html/ecb.sp250401~9e1ee05e88.en.html
13 https://www.eba.europa.eu/publications-and-media/press-releases/eba-and-esma-analyse-recent-developments-crypto-assetshttps://www.eba.europa.eu/publications-and-media/press-releases/eba-and-esma-analyse-recent-developments-crypto-assets
14 https://www.ecb.europa.eu/press/key/date/2025/html/ecb.sp250320_1~41c9459722.en.html

mechanism for safeguarding both the global role of the US dollar and financial stability. The executive order also highlighted that CBDCs create threats to financial stability, individual privacy, and the sovereignty of the US, prohibiting the establishment, issuance, circulation, and use of a CBDC within the jurisdiction of the United States[15].

Following the new regulatory approach, the US Office of the Comptroller of the Currency (OCC)'s interpretative letter 1183, published in March 2025, reversed its stance and clarified that national banks and federal savings associations can now offer crypto-asset custody solutions, engage in stablecoin-related activities, and participate in distributed ledger networks[16].

There are two bills under active consideration in Congress—the GENIUS (Guiding and Establishing National Innovation for US Stablecoins)[17] Act, which passed the US Senate Banking Committee in March 2025, and the STABLE (Stablecoin Transparency and Banking Licensing Enforcement)[18] Act in the House— that proposed some helpful guardrails for stablecoins.

The European Central Bank (ECB) is expanding initiatives to settle transactions in central bank money using distributed ledger technology (DLT). A two-pronged approach is underway: developing a platform for interoperable settlements with TARGET services (Eurosystem payments, securities, and collateral settlement) and a long-term, integrated solution for DLT-based transactions in central bank money[19]. Industry groups such as AFME and ICMA have welcomed these moves, highlighting the potential for programmable automation and more efficient securities settlement[20].

Regulatory Divergence and the Need for Global Regulatory Harmonisation

The EU's regulatory approach emphasises financial stability, consumer protection, and "economic sovereignty," with a preference for a digital euro (CBDC) over unregulated cryptocurrencies[21].

However, a recent European Parliament report has observed that the EU Commission's digital euro (CBDC) initiative is now a long-term aspiration rather than a near-term priority[22]. Differences between the EU Commission and the European Securities Markets Authority (ESMA) regarding next steps for MiCA[23] also suggest that more market-friendly regulation could emerge.

Regulatory divergence has also emerged across regions. In March 2025, a US executive order to create a US Strategic Bitcoin Reserve and Digital Asset Stockpile was signed. This will treat Bitcoin as a national reserve asset and includes Ether, XRP, Solana, and Cardano as national digital assets, becoming the first major economy to do so. The move could have huge implications for the adoption of digital assets in traditional financial markets and the real-world economy. On the other hand, ECB President Christine Lagarde had predicted in January 2025 that no European Union country would choose to add Bitcoin to its monetary reserves. "I think there is a view around the table of the Governing Council, and most likely the General Council as well, that reserves have to be liquid, that reserves have to be secure, that they have to be safe, that they should not be plagued by the suspicion of money laundering or other criminal activities," Lagarde said[24].

At SFF 2024, Lesley Chavkin, Global Head of Public Policy, Paxos, emphasised the importance of coordinated global regulation. "I think we'd all agree that global coordination and harmonisation are needed. I think it's going to take the work of G7, G20 doing this in a coordinated fashion," noted Chavkin.

Divergent regulatory approaches in the US, EU, and Asia hamper harmonisation. Some recent international harmonisation efforts include IOSCO guidelines for regulating crypto and digital assets, and the Financial Stability Board (FSB) crypto-asset regulation recommendations focused on same-risk, same-regulation principles.

The latest International Monetary Fund (IMF) Balance of Payments and International Investment Position Manual (BPM7)[25] launched in March 2025 integrates digital assets and cryptocurrencies into global standards for reporting national accounts and cross-border economic activity. The BPM7 framework introduces a clear taxonomy for digital assets based on their structure, function, and economic role. It classifies digital assets into capital assets, financial instruments, or service-related income, depending on how they operate and whether they carry liabilities, helping to harmonise how these assets would be recognised and accounted for.

15 https://www.whitehouse.gov/presidential-actions/2025/01/strengthening-american-leadership-in-digital-financial-technology/
16 https://www.pymnts.com/cryptocurrency/2025/us-says-banks-can-hold-crypto-but-should-they/
17 https://www.banking.senate.gov/imo/media/doc/genius_markup_final.pdf
18 https://www.congress.gov/bill/119th-congress/house-bill/2392
19 https://www.ecb.europa.eu/press/pr/date/2025/html/ecb.pr250220_1~ce3286f97b.en.html
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21 https://www.atlanticcouncil.org/blogs/econographics/the-2025-crypto-policy-landscape-looming-eu-and-us-divergences/
22 https://www.europarl.europa.eu/RegData/etudes/IDAN/2025/764343/ECTI_IDA(2025)764343_EN.pdf
23 https://finance.ec.europa.eu/document/download/ff17c445-6a7e-4d48-a9f8-2ae1392429bc_en?filename=241129-letter-esma-mica-crypto-asset-service-provider_en.pdf
24 https://www.bloomberg.com/news/articles/2025-01-30/lagarde-is-confident-eu-central-banks-will-shun-bitcoin-reserves
25 https://www.imf.org/en/News/Articles/2025/03/20/pr25072-imf-and-statistical-community-release-new-global-standards-for-macroeconomic-stats

Efforts are intensifying to address interoperability between digital asset systems and legacy financial infrastructure, seen as critical for scaling the adoption of digital assets in financial services and improving efficiency. Industry and regulatory associations are driving work on common rules, definitions, and protocols, including disclosure standards and contingency planning[26].

Swift's upcoming live trials for digital asset and currency transactions aim to bridge traditional and digital platforms, enhancing global interoperability. These trials aim to show how financial institutions can transact interchangeably across existing and emerging asset and currency types using their current Swift connection[27].

"For digital assets and currencies to succeed on a global scale, it's critical that they can seamlessly coexist with traditional forms of money," said Tom Zschach, Chief Innovation Officer at Swift.

Payments

Next-Generation Payment Technology - Key Developments in 2025

Cross-Border Payments via tokenized fiat in the form of stablecoins and deposits on a blockchain allow for near-instant cross-border, low-cost transfers, potentially shortening multi-day settlement windows into minutes or seconds. Stablecoins are becoming an increasingly popular payment mechanism. For example, Circle's Payments Network connects banks and payment providers for real-time settlements, reducing reliance on intermediaries and lowering costs compared to traditional systems.

Europe's approach relies on the digital euro, which is envisioned to be accessible to non-euro area residents, allowing merchants outside the euro area to accept digital euro payments from euro area residents. This is complemented by an arrangement between the ECB and central banks of third countries[28].

Projects like Bank for International Settlements (BIS) Project Nexus driven together with Asean central banks are linking domestic instant payment systems (IPS) worldwide, breaking down silos and allowing seamless, cost-efficient, and traceable transactions across borders by standardising the way domestic IPS connect to one another. Now, an IPS operator does not need to build custom connections for every new country to which it connects, and the operator only needs to make one connection to Nexus, which would allow the IPS to reach all other countries in the network[29].

Europe is taking similar steps. In October 2024, the ECB's Governing Council decided to take concrete steps towards linking TARGET Instant Payment Settlement (TIPS) with other fast payment systems to improve cross-border payments globally. These steps include cross-currency settlement service with Sweden and Denmark, exploring bilateral linkage with India's UPI and connecting TIPS with Project Nexus.

ISO 20022, the global messaging standard for payments, will also play a pivotal role in transforming cross-border transfers. It allows for enriched data, standardisation across payment networks, and better integration with other systems. Financial institutions and businesses adopting this standard will benefit from greater efficiency, automation, and accuracy in their payment workflows.

Real-Time Payments (RTP) domestic payment systems are rapidly shifting toward real-time settlement, driven by regulatory mandates like the Instant Payment Regulation (IPR) in the EU. These systems enable instant transfers, improving user experience and liquidity for consumers and businesses.

One-click payments are significantly reducing cart abandonment rates, from over 70% during multi-step checkouts to under 1% for one-click experiences. These are especially effective for mobile in-app shopping[30].

Digital Identity and Biometric Authentication. Security is being enhanced through biometrics such as facial, fingerprints and palm recognition, and liveness detection. In addition, behavioural biometrics, a form of passive ID verification, could enable businesses to better track the continual behaviour of a user and allow for ongoing authentication. This replaces the decades-old system of passwords, card security codes and OTPs for payment authentication. With the rise of identity theft and fraud, biometric authentication is becoming a reliable and secure option for digital payments. The global biometric payment market is expected to reach US$66.7 billion by 2029[31].

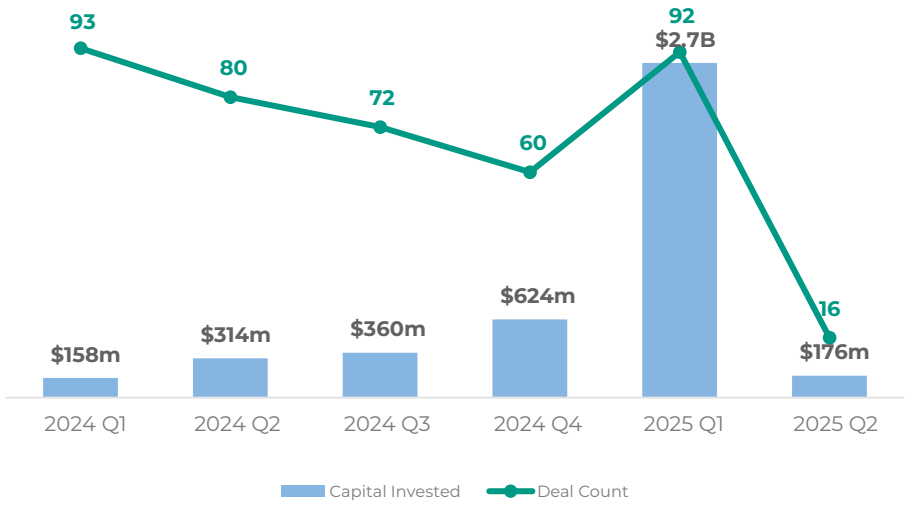
Voice-Based Payments and Embedded Finance (payments integrated directly into apps and platforms) are gaining traction, simplifying the payment process and reducing friction. Secured with biometric authentication, these payments combine ease with robust safety measures.

26 https://www.ashurst.com/en/insights/digital-assets-in-2025-what-to-watch/
27 https://www.swift.com/news-events/news/live-trials-digital-asset-transactions-swift-start-2025
28 https://www.ecb.europa.eu/press/key/date/2025/html/ecb.sp250401~9e1ee05e88.en.html
29 https://www.mas.gov.sg/news/media-releases/2024/project-nexus-completes-comprehensive-blueprint-for-connecting-domestic-ipses-globally
30 https://thepaymentsassociation.org/article/the-future-of-payments-key-trends-that-will-shape-2025/
31 https://www.thebusinessresearchcompany.com/report/biometric-payment-global-market-report

Artificial Intelligence

Investment Trends and Commercial Adoption

Chart 2: Europe Fintech-related AI Investments

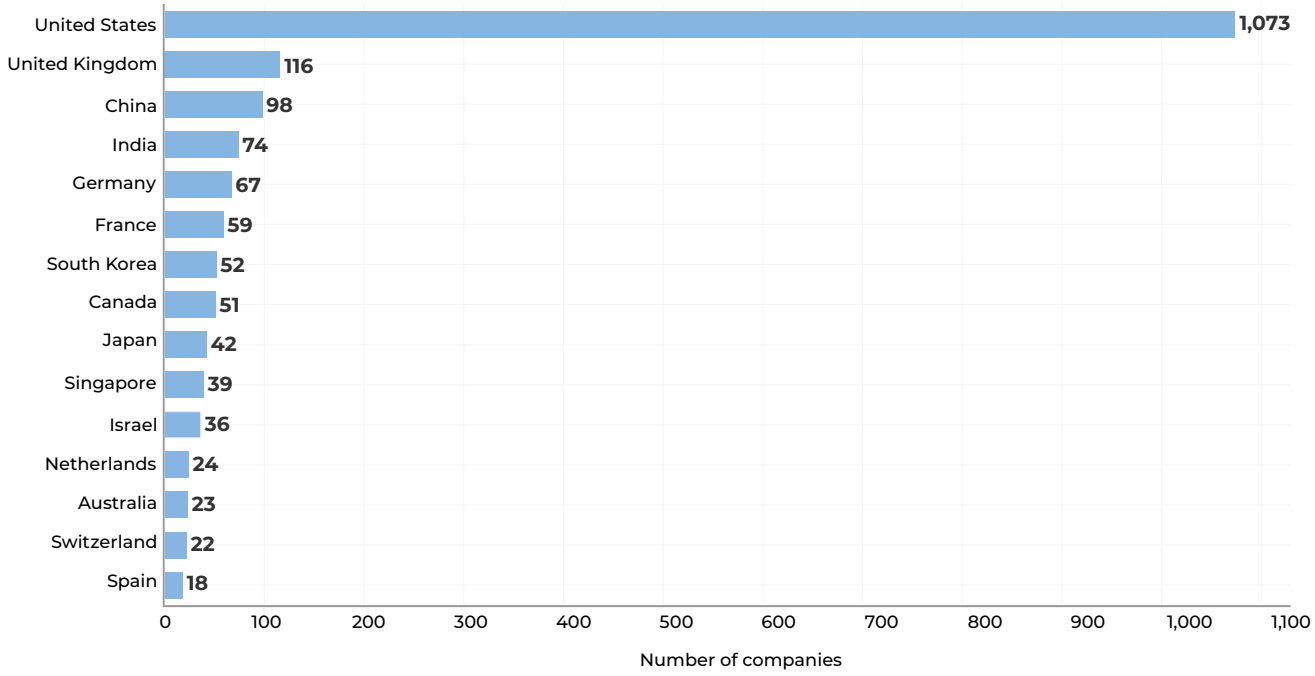


As of 16 April 2025.Data Sources: Pitchbook, Tracxn, CB Insights; GFTN Analysis.

Fintech-related AI investments in Europe reached a high of US$3B as of mid-April 2025, exceeding 2024's total of US$1.5B. This compares to the US funding of US$3B for the same period in 2025 and US$5.7B for 2024.

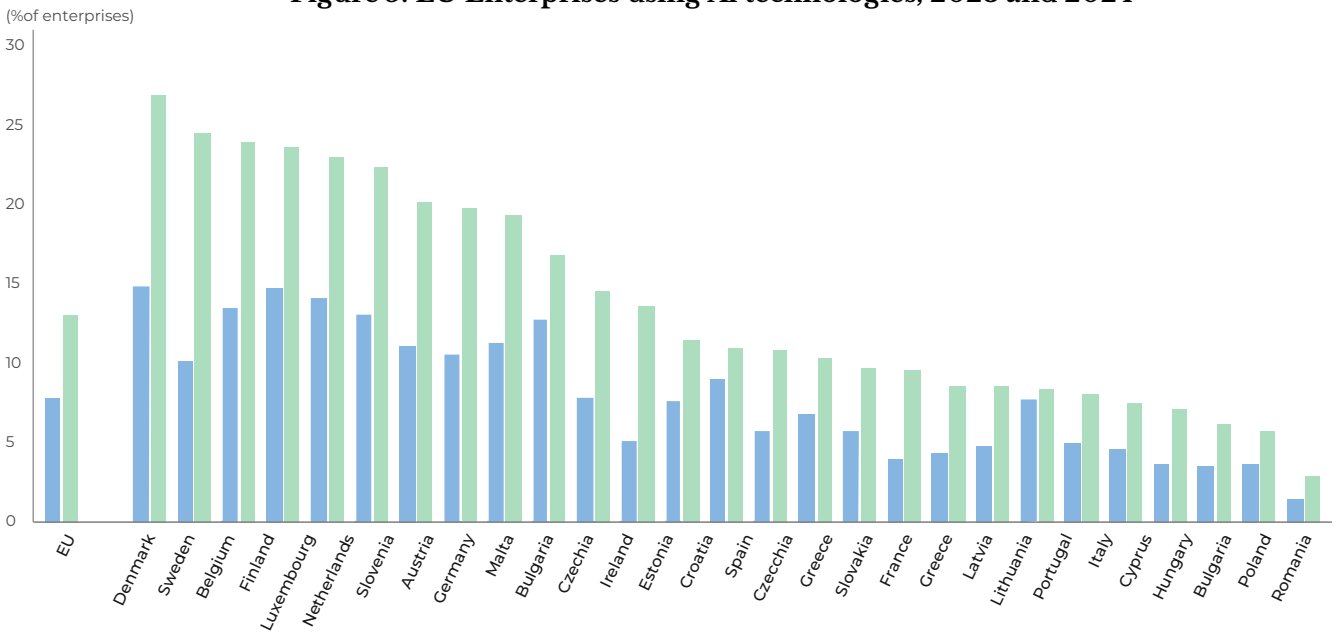
In Europe, mega-deal such as Esker's (CFO Stack) US$1.7B contributed 60% of 2025's investment value thus far. This was further supported by six large deals, each worth more than US$100m.

Figure 4: Number of newly funded AI companies by country (2013 – 2024 cumulative)



Source: Quid 2024

Figure 5: EU Enterprises using AI technologies, 2023 and 2024



Source: Eurostat 2025

The EU aims for 75% of its enterprises to use AI by 2030. Although the EU has made some progress, it is still far from achieving this goal. In 2024, only 13.5% of enterprises in the EU used AI[32].

EU AI Act

The European Union (EU) approaches AI governance through a multifaceted lens, balancing geopolitical, economic, and regulatory priorities. Central to its efforts is the EU AI Act; a landmark regulation and the world's first comprehensive legal framework for artificial intelligence, formally adopted in 2024. It classifies AI systems based on their potential risk to users into categories like minimal risk, limited risk, high risk, and prohibited applications. High-risk AI systems (such as those used in healthcare, critical infrastructure, education, and law enforcement) must meet strict requirements for safety, transparency, human oversight, and data governance before they can be placed on the EU market. Meanwhile, certain applications, like social scoring by governments or manipulative "subliminal" AI systems, are outright banned.

The Act applies not just to companies based in the EU, but to any organisation that sells AI systems in the European market or whose AI affects people in the EU. It also introduces new obligations for "foundation models" and "general-purpose AI" like large language models, requiring transparency on training data and usage limitations. Enforcement will be handled by national authorities and a new European AI Office, with fines up to €35 million or 7% of global turnover for serious breaches.

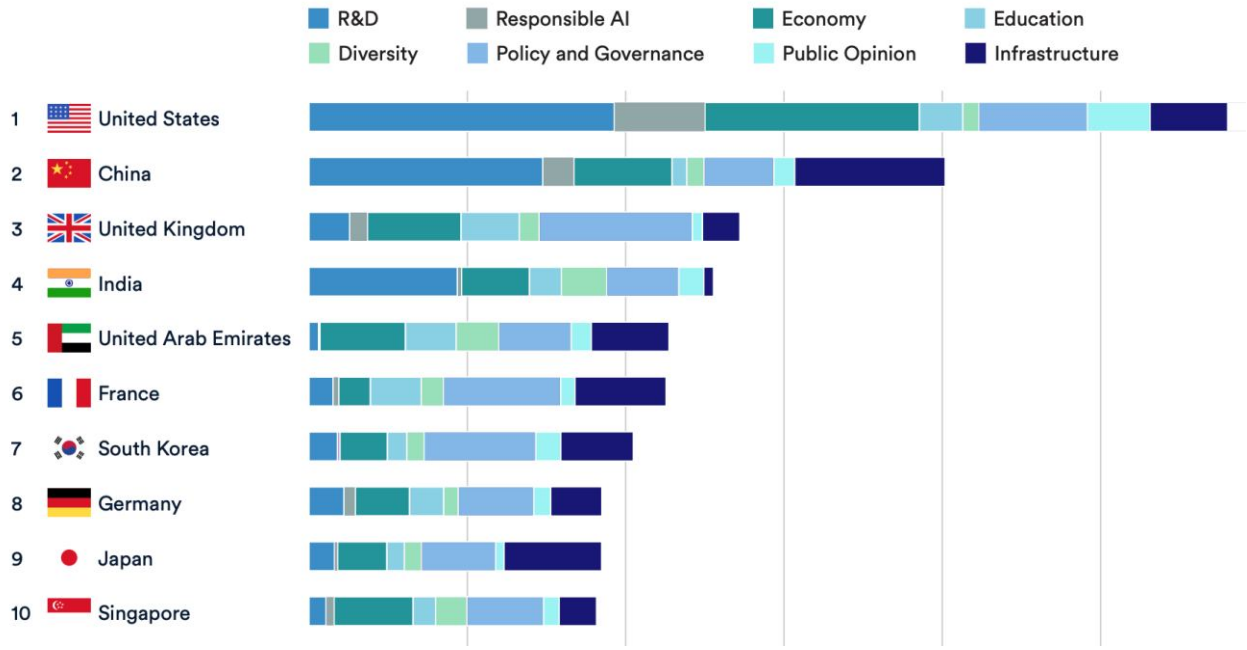
By advancing the AI Act, the EU aims to set a global benchmark for AI regulation by positioning itself as a leader in shaping international AI norms. The AI Act had previously prompted discussions about a global "regulatory race" with other major jurisdictions such as the US and the UK.

Amid the global race for AI dominance, Europe faces the dichotomy of wanting to set a gold standard for AI regulation while balancing the needs of technological innovation. The EU is still working to implement the AI Act, but influential documents such as the Draghi report on EU competitiveness suggest widespread concerns that its AI regulatory efforts may have gone too far and stifled innovation. These concerns have been carried forward in the European Commission's white paper “A Competitiveness Compass for the EU,” which emphasises the necessity of achieving simpler, lighter, and faster regulation.

A different approach to AI regulation is being seen elsewhere in the world - the new administration in the United States has pivoted away from heavy AI legislation, repealing the Biden administration's AI executive order, which had emphasised AI safety, transparency, and civil rights protections. The new US approach currently is a mixture of proposed state-level AI regulation and the Trump administration's federal level Executive Order for “Removing Barriers to American Leadership in AI” in January 2025, which seeks to eliminate perceived regulatory barriers to AI development, promote AI systems free from ideological bias or engineered social agendas[33], and mandate a federal action plan to sustain US AI leadership, focusing on economic competitiveness and national security.

32 https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20250123-3#_blank
33 https://www.whitehouse.gov/fact-sheets/2025/01/fact-sheet-president-donald-j-trump-takes-action-to-enhance-americas-ai-leadership/?utm_source=chatgpt.com

Figure 6: Global AI Vibrancy Ranking



Source: Stanford AI Index 2024

The UK has recently shifted its focus toward AI security. In February 2025, the UK's AI Safety Institute was rebranded as the AI Security Institute[34], pivoting from concerns around algorithmic bias and discrimination to issues of national security such as AI's potential use in weapons development. Japan is also hitting the brakes on the race to regulate AI[35].

At the global level, divergent regulatory philosophies were evident at the AI summit held in Paris in February. While 60 nations—including France, China, and India—signed a declaration committing to an "open," "inclusive," and "ethical" approach to AI, neither the US nor the UK endorsed the agreement. The joint statement emphasised bridging digital divides and ensuring AI development is "transparent," "safe," and "trustworthy."

U.S. Vice President JD Vance, speaking at the summit, reaffirmed the Trump administration's stance on prioritising growth over regulation, stating that AI represents "an opportunity that the administration will not squander," and calling for "pro-growth AI policies" over safety-first approaches[36].

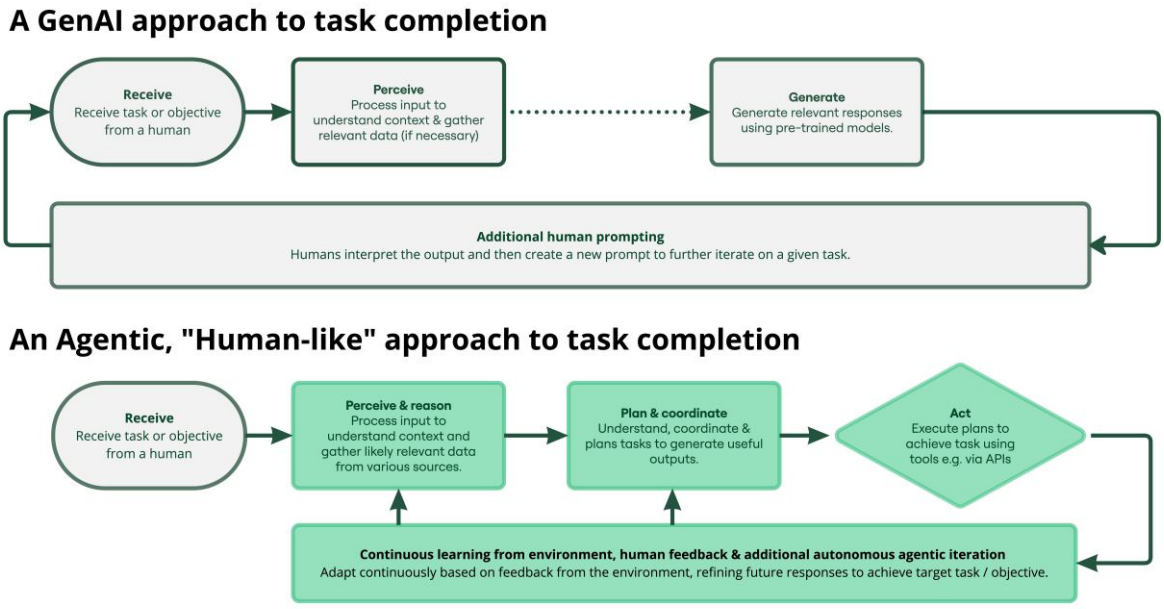
AI: Productivity and Regulatory Shifts

The European discourse on artificial intelligence (AI) in 2025 has been dominated by concerns over productivity, investment gaps, and the need for regulatory adaptation. The ECB emphasises that AI has the potential to significantly boost productivity in the euro area, with estimates suggesting total factor productivity could rise by 0.3% to 1.5% annually over the next decade, depending on the scale of AI adoption[37]. However, Europe faces challenges in funding, regulatory complexity, and energy constraints, all of which could hinder AI's diffusion and economic impact.

A key theme is the comparison with the US and China[38], which continue to outpace the EU in AI investment. Between 2018 and 2023, EU investment in AI companies was about EUR33B, far behind the US' EUR120B[39]. Europe excels in research and digital talent but struggles to translate these strengths into commercial and economic success due to underinvestment and fragmented innovation ecosystems[40].

34 https://www.gov.uk/government/news/tackling-ai-security-risks-to-unleash-growth-and-deliver-plan-for-change
35 https://www.csis.org/analysis/new-government-policy-shows-japan-favors-light-touch-ai-regulation
36 https://www.bbc.com/news/articles/c8edn0n58gwo
37 https://www.ecb.europa.eu/press/key/date/2025/html/ecb.sp250401_1~d6c9d8df11.cs.html
38 While the United States and China are global AI rivals, they are also the most important AI collaborators. According to a 2023 report by Stanford University, the number of AI research collaborations between the two competitors quadrupled between 2010 and 2021, although the rate of collaboration has since slowed significantly and will likely continue to do so because of national security concerns.
39 https://www.ecb.europa.eu/press/key/date/2025/html/ecb.sp250401_1~d6c9d8df11.cs.html
40 https://www.eib.org/en/products/advising/innovfin-advisory/ai-blockchain-and-future-of-europe-report

Figure 7: GenAI compared to Agentic AI



Source: Cambridge Centre For Alternative Finance 2024

According to the Stanford Institute for Human-Centered AI (HAI) in 2024, US institutions produced 40 notable AI models, significantly outpacing China's 15 and Europe's three. While the US maintains its lead in quantity, Chinese models have rapidly closed the quality gap performance differences on major benchmarks, such as MMLU and HumanEval, shrinking from double digits in 2023 to near parity in 2024. At the same time, China continues to lead in AI publications and patents[41].

Latest Policy and Investment Initiatives

Although the EU has paid a lot of attention to ensuring that AI systems are safe, its latest focus has been on supporting AI innovation. In response to concerns over Europe's competitiveness in AI, the EU is ramping up efforts to close the investment gap and foster AI innovation:

InvestAI Initiative launched in February 2025 aims to mobilise EUR 200B in AI investment, including a new European fund of EUR 20B for AI gigafactories, signalling a major policy shift toward supporting AI's AI development and its uptake across sectors[42].

AI Continent Action Plan announced in the 2025 European Commission work programme, this action plan will focus on increasing AI adoption and supporting the creation of "AI factories" to facilitate development and deployment[43].

Regulatory Reform. The EU is moving to simplify digital regulations, speed up permitting, and invest in critical infrastructure like data centres and electricity grids to support AI growth[44]. The European Commission has also recently dropped its proposed EU AI Liability Directive, which was meant to provide non-contractual civil liability regulations for damage caused by AI systems.

Spotlight: Agentic AI in Financial Services

AI agents progress from automation to decision-making in finance. Unlike traditional AI or even generative AI (GenAI), which operate within predefined parameters or require regular human input, agentic AI dynamically adapts to changing environments, learns from interactions, and proactively solves complex problems[45] and even executes transactions autonomously.

Europe has very strong regulations around finance and AI, mandating that Agentic AI balance autonomy with control and transparency:

EU AI Act (2024): Europe's new AI Act categorises financial services AI (especially Agentic AI) as high-risk, meaning strict obligations around explainability, human oversight, and robustness.

41 https://hai.stanford.edu/ai-index/2025-ai-index-report
42 https://ec.europa.eu/commission/presscorner/detail/en/ip_25_467
43 https://epthinktank.eu/2025/03/12/eu-and-uk-approaches-to-ai-latest-developments/
44 https://www.ecb.europa.eu/press/key/date/2025/html/ecb.sp250401_1~d6c9d8df11.cs.html
45 https://www.weforum.org/stories/2024/12/agentic-ai-financial-services-autonomy-efficiency-and-inclusion/

Figure 8: Agentic AI potential use cases in Financial Services

Agentic AI Use Cases	Wealth Management /Retail Banking	Corporate Banking	Institutional Investor	Insurance
Personalized Offers	• Adaptive financial advice • Real-time savings goal optimization	• Custom lending offers • Optimized loan structures • Dynamic pricing	• Dynamic investment portfolios • Bespoke investment plans	• Tailored insurance policies • Dynamic loyalty offers
Customer Engagement	• Virtual financial assistants • Tax and retirement planning agents	• Financial planning agents • Adaptive tax planning	• Custom research insights • Real-time market alerts	• AI-driven query handling • Proactive policy updates, renewals
Operational Efficiency	• Automate routine tasks with context-aware workflows	• Streamlined complex operations • Invoice processing, reconciliations	• Automated fund review reports	• Adaptive claim management
Risk and Underwriting	• Real-time risk profiling • Predictive default modelling	• Real-time risk assessment	• Diversification risk management • Real-time hedging strategies	• Real-time underwriting models
Financial Forecasting	• Future savings, expense insights	• Live cashflow forecasts	• Dynamic investment timing strategies • Investment performance insights	• Predicting claim reserves • Automated premium calculations
KYC / Onboarding	• Adaptive identity verification • Real-time AML compliance	• Adaptive onboarding workflows • Real-time sanctions monitoring	• Real-time due diligence • Investor suitability analysis	• Adaptive identity verification
Fraud Prevention	• Contextual-based suspicious activity detection	• Coprorate fraud detection	• Insider trading detection • Automated regulatory compliance	• Claim fraud detection with contextual analysis

Source: Citi GPS 2025

Markets in Financial Instruments Directive (MiFID II), **Payment Services Directive** (**PSD2)**, and **DORA**: These financial regulations emphasise risk management, client transparency, data protection, and operational resilience, which Agentic AI must integrate into its operation.

Key Applications in Financial Services

Agentic AI is already changing multiple areas within financial services:

Fraud Detection and Prevention: Agentic AI autonomously analyses transaction data, identifies anomalies, and blocks fraudulent activities in real time, adapting to new fraud tactics as they emerge[46]. In Europe, agentic AI needs to respect PSD2 rules on payment security and user authentication.

Risk Management: These systems continuously integrate real-time and alternative data sources to dynamically assess creditworthiness, monitor market conditions, and adjust risk models on the go[47].

Trading and Portfolio Management: Autonomous trading agents analyse live market signals, adjust strategies, and execute trades in seconds, optimising returns while responding instantly to market changes[48].

Customer Engagement: AI-driven assistants – such as personalised robo-advisors or adaptive asset management systems – adapt to user behaviour, proactively offer personalised insights, and could potentially autonomously act to optimise savings or suggest better loan terms[49]. In Europe, clear client consent (under GDPR, MiFID II) and explainability are additionally required.

Regulatory Compliance: Agentic AI automates KYC (Know Your Customer), AML (Anti-Money Laundering) checks, and compliance reporting, reducing manual workload and improving accuracy[50].

Benefits

Autonomy and Efficiency: Agentic AI handles repetitive, data-intensive processes, freeing human resources for higher-value tasks and enabling faster, more accurate decision-making[51].

Personalisation: Financial tools become adaptive and tailored, offering bespoke advice and strategies aligned with individual goals and risk profiles[52].

46 https://www.cognizant.com/us/en/insights/insights-blog/agentic-ai-systems-revolutionizing-financial-services
47 https://lumenalta.com/insights/harnessing-agentic-ai-smarter-operations-decision-making-personalization-automation
48 https://www.moodys.com/web/en/us/creditview/blog/agentic-ai-in-financial-services.html
49 https://www.weforum.org/stories/2024/12/agentic-ai-financial-services-autonomy-efficiency-and-inclusion/
50 https://lumenalta.com/insights/harnessing-agentic-ai-smarter-operations-decision-making-personalization-automation
51 https://www.weforum.org/stories/2024/12/agentic-ai-financial-services-autonomy-efficiency-and-inclusion/
52 https://www.weforum.org/stories/2024/12/agentic-ai-financial-services-autonomy-efficiency-and-inclusion/

Proactive Operations: These systems anticipate risks, market shifts, and customer needs, enabling institutions to respond before issues escalate[53].

Enhanced Security: Real-time, self-learning fraud detection reduces losses and improves trust[54].

Challenges and Considerations

Trust and Transparency: Autonomous decision-making raises concerns about explainability, accountability, and bias.

Human oversight: Pawel Gmyrek of the International Labour Organization notes: “A 'human above the loop' approach remains essential, with AI complementing human abilities rather than replacing the judgment and accountability vital to the sector.”

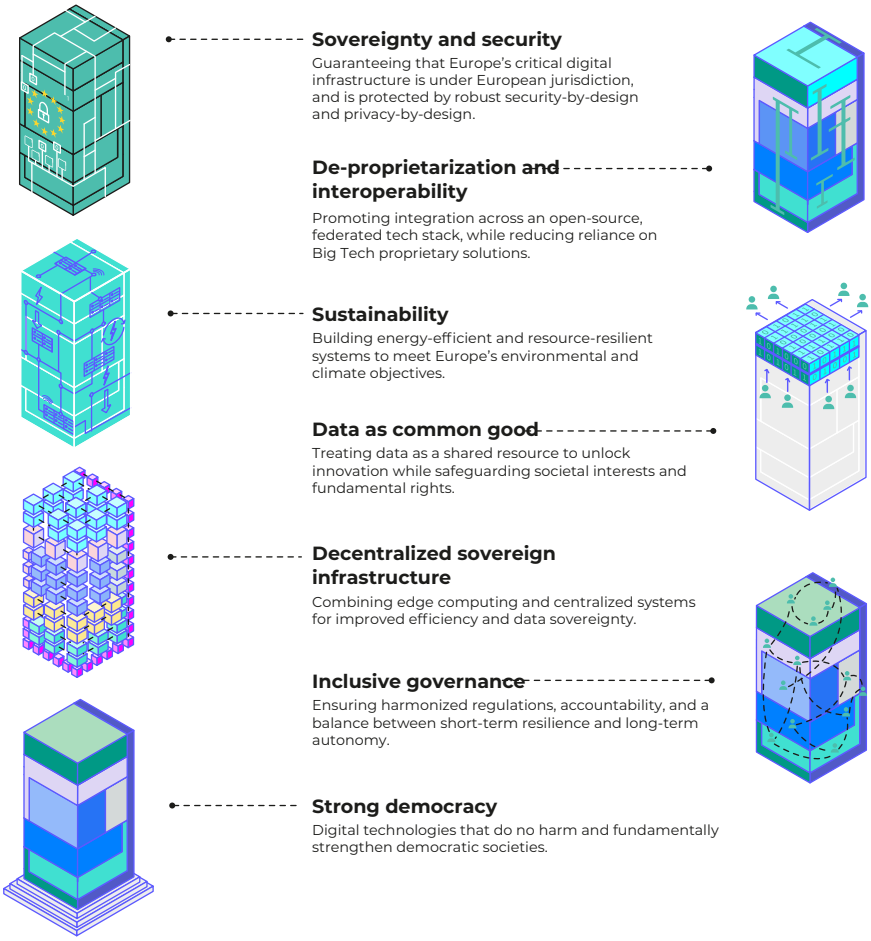
Governance and regulatory compliance: Autonomous AI poses unique governance challenges. Updated regulatory frameworks must ensure accountability, oversight and ethical standards to address biases in decision-making (e.g. in credit underwriting). Transparency is crucial for maintaining trust. Ensuring agentic AI systems adhere to evolving financial regulations will be a persistent challenge[55].

Data Privacy and Cybersecurity: Increased autonomy could mean greater exposure to data breaches and privacy risks if not managed carefully. Cyber-attack surface would increase because agentic AI integrates with multiple systems within a firm that all share multitudes of data, and bad actors might not be caught until after agentic AI has executed transactions.

Europe's Digital Sovereignty: The EuroStack Vision

“Europe's sovereignty requires a technological leap. The EuroStack is our digital evolution of the euro and the single market—a strategic necessity to secure Europe's critical digital infrastructures and supply chains, attract talent, scale indigenous technologies, and uphold democratic values.” said Professor Francesca Bria, lead author of the EuroStack report[56].

EuroStack Core Principles



Source: EuroStack_2025

53 https://lumenalta.com/insights/harnessing-agentic-ai-smarter-operations-decision-making-personalization-automation
54 https://www.cognizant.com/us/en/insights/insights-blog/agentic-ai-systems-revolutionizing-financial-services
55 https://www.moodys.com/web/en/us/creditview/blog/agentic-ai-in-financial-services.html
56 https://www.ucl.ac.uk/bartlett/news/2025/feb/new-eurostack-report-launched-bold-vision-europes-digital-sovereignty

The EuroStack initiative proposes Europe's strategic pivot toward self-reliant digital infrastructure and seeks to establish the continent as a leader in digital sovereignty. It aims to reduce systemic dependency on non-European platforms in areas such as AI, cloud services, digital identity, and payment networks.

The EuroStack blueprint is based on a digitally sovereign Europe built on interconnected layers of advanced technologies, ranging from semiconductors and artificial intelligence (AI) to cloud computing and quantum systems. This approach prioritises sustainability, inclusivity, and interoperability, ensuring Europe's digital future aligns with its democratic values, social equity goals, and economic aspirations[57].

It proposes several key components for Europe's common digital stack to strengthen digital autonomy and drive innovations, which include:

EuroChips: Semiconductors are the bedrock of Europe's digital infrastructure. The European Chips Act has boosted investments in cutting-edge fabrication facilities and next-generation chip designs. EuroStack initiative supports expanded RISC-V (an open standard architecture) development and adoption.

EuroConnect: The EuroStack's network infrastructure promotes secure, seamless communication across borders, enabling real-time data exchange essential for Europe's digital economy through the development of current 5G and future 6G networks, decentralised and localised edge operations for critical sectors such as healthcare, manufacturing, and smart cities. It also seeks to prioritise energy-efficient network technologies that are resilient, quantum-ready and have robust cybersecurity measures that align with Europe's sustainability goals.

SovereignCloud: EuroStack aims to establish a scalable, unified cloud infrastructure and AI factories fully under European jurisdiction, leveraging initiatives like 8ra (decentralised, interoperable, and secure multi-provider cloud-edge continuum) and the Important Projects of Common European Interest (IPCEI) CIS.

SmartEurope IoT: Large-scale deployment of Cyber Resilience Act and NIS-2 Directive compliant and certified devices across smart cities, industrial automation, renewable energy management, advanced manufacturing, and robotics.

DataCommons: Federated data exchange for innovation with public interest data platforms that treat data as a collective resource managed for societal benefit, and secure, sovereign industry data sharing frameworks such as Manufacturing-X, Catena-X, with an emphasis on data sovereignty, cross-sector interoperability, and ethical governance.

EuroOS: Software forms the operational core of digital infrastructure. EuroStack seeks to reduce dependency on US-dominated operating system (OS) ecosystems, support Next Generation Internet open-source alternatives, and ensure EU jurisdiction for digital operations. It focuses on Digital Identity Wallet: a decentralised, secure, privacy-by-design, cross-border ID interoperable solution. It also supports Digital Euro: CBDC, compliant with the General Data Protection Regulation (GDPR), to enable fee-free, inclusive transactions.

SovereignAI: AI-as-a-Service for Europe's strategic autonomy to power critical sectors such as mobility, healthcare, education, and climate monitoring across Europe.

As highlighted during PZF 2024, achieving digital sovereignty is not simply a technological undertaking—it is a geopolitical requirement. The EuroStack is thus a vehicle for preserving democratic control, data autonomy, and macro-financial stability in an era increasingly shaped by technological hegemony.

It calls for policymakers to adopt a “Europe first” mindset in procurement and finalise the European Sovereign Tech Fund; and for industry leaders to collaborate on the required building blocks for EuroStack, invest in European research and development (R&D), and champion minimum viable product testbeds.

It further calls for EU-wide digital skills programs, R&D incentives, and mobility for tech talents to address the talent and skills gap and to form global strategic partnerships and other non-aligned countries.

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Authors

GFTN Research & Advisory

Aanault Lee
Lead Author

For further information,
please contact **aanault.lee@gftn.com**

Production

Arulananthan Balakrishnan
Copy Editor

Sachin Kharchane
Graphic Designer

Contributors

Matthias Kröner
Managing Partner, EMEA, GFTN

Rafat Kapadia
Head of Investments

Akanksha Rath
Senior Manager

Global Finance &
Technology Network (GFTN)

6 Battery Road, #28-01, Singapore 088849
gftn.co | hello@gftn.com