



BLOCKCHAIN TECHNOLOGIES

All-Party Parliamentary Group

APPG International Roundtable on Blockchain and Digital Assets

Organiser: **The British Blockchain Association** (APPG Secretariat)

Date: 3 December 2025

Time: 5:00 PM - 6:30 PM

Location: Committee Room 17, **Palace of Westminster**, UK Parliament

ATTENDEES

Parliamentarians

Rt Hon The Lord Boateng CVO - Labour Life Peer, and Member, Blockchain APPG

Rt Hon Viscount Camrose - Member, Blockchain APPG; Shadow Minister, Department for Science, Innovation & Technology

Lord Taylor of Warwick - Member, Blockchain APPG

Baroness Manzila Uddin - House of Lords

Lord Naseby - Member, Blockchain APPG

APPG Secretariat / The British Blockchain Association (BBA)

Natalie Elphicke OBE FBBA - BBA Fellow and Former Chair, Blockchain APPG (2023–2024)

Prof. Dr Naseem Naqvi MBE - President, The BBA; Head of Blockchain APPG Secretariat

Deborah Cleary - Head of Partnerships, The BBA

Lewis Rogers, BBA Advisor

Apologies

Matt Vickers MP

Simon Dyson - Senior Editor, The JBBA

Dr Stylianos Kampakis, UCL

Evidence Givers and Guests

Dr Burhan Ahmed - CEO, BlockMed Pro; APPG Working Group & BBA Corporate Member

Elizabeth Anderson - Senior Content Editor, Financial Times

Rachel Fung - Hong Kong Trade Development Council (HKTDC)

Professor Joyce O'Connor - BlockW, Ireland

Sabrina Wollenschläger - Managing Director, Blockchain Zug Research Hub, Switzerland

Prof Marc Pilkington FBBA - Associate Editor-in-Chief, The JBBA

Dr Aisling Third - Research Fellow, Open University

Professor Arze Karam - Durham University

Dr Sepideh Mollajafari - Senior Lecturer, University of Gloucestershire

Lisa Cameron - UK/US Crypto Alliance

Amanda Wick - Verify VASP

Oritsebawo Paul Ikpobe - Founder, QORA



Overview

The session was convened to assess the requirements for establishing a national blockchain infrastructure in the United Kingdom. The roundtable brought together domestic and international experts from industry, academia, media, and policy to provide evidence and inform parliamentarians on the challenges and opportunities ahead.

Opening Remarks from Rt Hon Viscount Camrose (Session Chair)

Rt Hon Viscount Camrose opened the session by welcoming attendees and setting expectations for the discussion. He emphasised the importance of the meeting as a forum for expert contributions on building a blockchain infrastructure for public services and the UK's digital economy. He highlighted the underutilised potential of blockchain technology as the **trust layer for the digital economy** and stressed that the current moment is timely for adoption. He noted that the technology's value has become increasingly evident, offering an opportunity to overcome societal hesitations and misconceptions. Viscount Camrose identified two key applications with potential to drive broader adoption:

NHS Data Governance: Blockchain could enable secure, granular, and revocable control over NHS data, supporting safe commercialisation and adherence to national requirements, ensuring citizen trust.

Digital National Identity: A blockchain-based digital ID scheme could enhance security, privacy, and resilience, creating a robust infrastructure for national identity management. He concluded that either initiative could significantly advance the UK's blockchain agenda and briefly noted other potential applications, including UK-nominated stablecoins.

Remarks from Prof Dr Naseem Naqvi MBE (Head of APPG Secretariat)

Professor Naqvi welcomed all attendees to the roundtable, noting that this represented the seventh session convened by the APPG on Blockchain Technologies. He framed the discussion around the role of blockchain in the digital economy, emphasising the rapid **global developments and competitive landscape surrounding national blockchain initiatives**. He referenced the United Kingdom's national blockchain roadmap published in 2021. He highlighted comparable international efforts, including the **American Blockchain Act of 2025** and China's significant planned investment in its national blockchain infrastructure. Professor Naqvi stressed that blockchain functions as a foundational technology for secure data governance and management. Professor Naqvi also outlined the APPG's mission to provide evidence-based, practical insights to policymakers. Over the past twelve months, the APPG has hosted multiple international roundtables, conducted field visits to academic institutions such as Durham University, and organised masterclasses for policymakers, providing hands-on understanding of blockchain applications. The outputs of these sessions are published in the Journal of the British Blockchain Association (JBBA), which reaches a global audience of students, academics, and professionals.

He described the APPG's organisational structure, comprising several working groups covering healthcare, identity, supply chain, trade, education, research, government, and public services. These groups play a critical role in informing policy development and knowledge dissemination across the sector.





Professor Naqvi noted the increasing presence of blockchain discussions within parliamentary proceedings, particularly in relation to digital identity, and emphasised the APPG's engagement with government to explore practical applications.

The Secretariat extended its thanks to BlockMed Pro for supporting the Roundtable.

Guest Remarks from Natalie Elphicke OBE FBBA

Natalie Elphicke, a Fellow of the British Blockchain Association and former Chair of the APPG, offered brief guest remarks. Recognised as the first British politician to deliver a keynote speech in the metaverse, she expressed her support for the APPG's continuing work as an important forum for conversation. She stated that her primary purpose for attending was to listen to the expert evidence and contribute to the collective discussion.

Evidence Contributions: *Evidence was provided across five jurisdictions and cross-cutting themes*

United Kingdom – Health & Social Care

Leveraging Blockchain to Strengthen NHS Data Interoperability and Patient Safety

Core Challenges: Interoperability across primary care, hospitals, and community systems remains a persistent and critical issue. Current NHS systems do not inherently trust each other, leading to fragmented data, inefficiencies, and patient safety risks. While the NHS 10-year health plan prioritises AI, its effectiveness is constrained by the lack of unified, high-quality data, resulting in financial waste and potential clinical hazards.

Blockchain as a 'Trust Layer':

Blockchain can act as a neutral, secure, and immutable record of healthcare data transactions. It does not store raw health data but ensures integrity, consent, and provenance, addressing the fundamental problem of siloed and untrusted systems in healthcare.

Key Use Cases:

Interoperability: Serves as a secure communication layer between systems, enabling seamless data exchange across primary care, hospital, and community care services.

Consent Management: Provides real-time, revocable, on-chain mechanisms for patient consent, critical for AI governance, research, and clinical trials. This ensures regulatory compliance while giving patients granular control over their own data.

Single Patient Record: Establishes a unified, patient-powered record that follows an individual across all care settings, reducing gaps that currently jeopardise clinical safety.

Clinical Safety Imperative: The evidence highlighted incidents where critical health information, such as allergy status, was lost during patient transfers between different





systems, leading to unsafe care. Blockchain-enabled infrastructure could prevent such incidents and strengthen overall patient safety.

Conclusion: The submission emphasised that blockchain provides a mechanism to empower patients with control over their health data while enabling secure, efficient, and interoperable healthcare delivery across the United Kingdom

United Kingdom - Media & Journalism

Challenges and Public Understanding of Blockchain

Insights from the media sector highlighted significant communication barriers that hinder mainstream understanding and adoption of blockchain technology.

Editorial Disinterest: The term 'blockchain' often fails to engage newspaper editors, who perceive it as jargon-heavy and difficult for general audiences. Unlike AI, which has benefited from accessible storytelling, blockchain remains largely technical and abstract in public discourse.

Journalistic Responsibility: Journalists must critically assess claims from business leaders and technology advocates, particularly regarding security risks, privacy concerns, and potential downsides. This necessary scepticism has contributed to a cautious or negative public perception of blockchain.

Path to Mainstream Adoption: Tangible, real-world use cases - such as applications in healthcare - are essential to helping journalists and the public visualise the benefits of blockchain. Stories focused on people, practical problem-solving, and improved outcomes are more effective than explanations of technical processes such as distributed ledgers or cryptographic methods.

Hong Kong:

Understanding the Digital Asset Framework and Implications for UK Collaboration

Insights into Hong Kong's regulatory approach highlighted lessons for international collaboration and alignment with the UK.

Proactive Stablecoin Legislation: Hong Kong has implemented a stablecoin ordinance aligned with global best practices. The law requires stablecoins to be fully backed by high-quality liquid assets and mandates compliance with the 'travel rule,' which obliges virtual asset service providers to share sender and recipient information. The legislation is extraterritorial, applying to any entity issuing a Hong Kong dollar-pegged stablecoin, regardless of location.

Regulatory Clarity: The framework strikes a balance between differing global regulatory approaches, offering clear guidance for market participants while avoiding overly complex or inconsistent rules seen in other jurisdictions. This clarity has attracted significant international interest and investment.

Market Response: The regulatory regime has generated considerable activity, with numerous institutions applying for licenses and forming joint ventures, demonstrating confidence in Hong Kong's oversight.

UK-Hong Kong Dialogue: Ongoing exchanges between UK and Hong Kong policymakers, regulators, and industry participants can facilitate mutual learning, helping both



jurisdictions identify opportunities for cross-border cooperation in digital assets and blockchain infrastructure.

European Union:

Understanding EBSI and Lessons for UK Blockchain Infrastructure

Insights were provided on Europe's pan-European blockchain initiative, operational since 2020, with practical lessons for the UK.

Interoperable Infrastructure from the Outset: The development of EBSI highlights the importance of designing cross-border, interoperable blockchain infrastructure from the beginning. This ensures that government services and identity credentials can function seamlessly across jurisdictions, avoiding costly retrofitting later.

Digital Identity and Self-Sovereign Models: Europe's pilot-driven approach to digital identity wallets, aligned with global standards, provides a valuable template. The emphasis on self-sovereign identity allows citizens to control their own credentials, representing a shift away from centralised models.

Open Standards Prevent Lock-in: Commitment to open-source components and shared technical frameworks is critical to avoid vendor lock-in and build public trust, particularly in public sector applications where transparency is essential.

Focus on Understandable Use Cases: Pilots demonstrating diploma authentication, social security coordination, and product traceability show the importance of selecting applications that citizens can easily understand and value, rather than prioritising technical complexity.

Quadruple Helix Governance Model: Long-term funding and structured governance involving government, industry, academia, and civil society are crucial for public infrastructure initiatives. Single-sector approaches lack the breadth of perspective and legitimacy required.

Illustrative Applications: Examples include blockchain use for verifiable financial services credentials, a supply chain tracker for craft beer authenticity, and a system for humanitarian aid transparency that tracks funding flows.

Switzerland:

Pioneering Blockchain Strategy in Crypto Valley and Beyond

Insights were provided on Switzerland's multi-faceted strategy, particularly in the Zug region ('Crypto Valley'), which has established the country as a leading global blockchain hub.

First-Mover Regulatory Advantage: Switzerland secured a competitive edge through early regulatory clarity. The DLT Act of 2021 provided explicit legal status for DLT-based securities, creating certainty for market participants. This early clarity attracted firms and talent from jurisdictions with less well-defined regulatory frameworks.

Strategic Research Investment: Switzerland has made substantial investments across universities to establish itself as a major blockchain research centre. This funding supports both fundamental research - exploring new cryptographic techniques and consensus mechanisms- and applied research, addressing practical industry challenges. The initiative has created a strong pipeline of talent and intellectual property to support the commercial ecosystem.



Persistent Communication Gap: A critical challenge remains in bridging the understanding gap between traditional industry and the blockchain ecosystem. Executives at major corporations often associate blockchain exclusively with cryptocurrency, overlooking its broader applications as an infrastructure technology. This perception, reinforced by media coverage patterns, presents a barrier to mainstream adoption.

United States: Regulatory Insights and Systemic Risks in Blockchain Finance

Insights were provided on the US regulatory landscape and systemic risk in blockchain finance.

The Transparency Advantage: Blockchain provides a level of visibility unprecedented in traditional finance. Every transaction is visible, traceable, and analysable, enabling regulators to monitor illicit flows in real-time and identify non-compliant actors with much greater precision than conventional systems allow.

Urgent Warning on Systemic Risk: The US financial system faces significant risks due to weakening oversight and enforcement. The evidence highlighted the importance for the UK to act proactively to mitigate exposure to potential instability, rather than waiting to respond to crises after they materialise.

Media Coverage Imbalance: Positive real-world applications, such as blockchain-enabled humanitarian aid, often receive minimal attention compared to high-profile negative events. This imbalance contributes to a distorted perception of blockchain's societal value and potential.

Enforcement Over Compliance Theatre: Regulatory frameworks are ineffective without rigorous enforcement. It is crucial to move beyond superficial compliance measures and ensure that regulators have the authority, resources, and mechanisms to impose meaningful penalties for non-compliance, thereby incentivising proper behaviour in the market.

Worldwide: Advancing Social Impact Through Blockchain for Good

Transformational work being done by women in the blockchain industry was highlighted, and how education and helping achieve the United Nations' Sustainable Development Goals (SDGs) globally is on the agenda. Participants provided evidence of how blockchain applications can contribute towards achieving the SDGs, supporting integration and ensuring people gain access to technology in many different places across the world where they previously lacked it. This inclusive approach aims to ensure skills development reaches underserved communities. Positive use cases starting to come through, including the NHS progress discussed earlier in the session, were applauded, however, whilst the industry shows promise, there remains a need for an 'air of caution' and for observers to act as 'critical friends to the industry' rather than uncritical advocates.

Academic Perspectives on Research, Education, and Trust

UK-based academic contributors highlighted the critical role of research, education, and analytical rigor in building a credible blockchain ecosystem.



1. Evidence-Based Development

Rigorous, empirical research is essential before deploying blockchain systems in real-world settings.

This includes testing in controlled environments, validation on test-nets, and ensuring security, scalability, and reliability.

Systems deployed without this foundation risk undermining public confidence and creating systemic vulnerabilities.

2. Comprehensive Education Across Society: Blockchain education must be accessible and accurate for all levels: undergraduate students, industry professionals, and policymakers. Education supports informed adoption, governance, and integration of blockchain into existing workflows. Peer-reviewed, academically rigorous resources are central to sustaining a knowledgeable ecosystem.

3. Regulatory Analytics and Transparency

Blockchain transparency, combined with AI and advanced analytics, enables regulators to:

Monitor multiple platforms for market manipulation

Detect illicit activity

Track sanctioned entities

Generate early warning signals for systemic risks

Effective use of these tools requires technical expertise and data literacy.

4. Precision in Language and Trust

Distinguishing between system trustworthiness and content reliability is crucial.

Blockchain guarantees the integrity of recorded data but not the accuracy, truthfulness, or intentions behind it.

Clear communication prevents public misunderstanding, misplaced confidence, and overestimation of blockchain capabilities.

Parliamentarian Reflections

Building on the evidence provided, parliamentarians highlighted key considerations for regulatory compliance, citizen protection, and global strategic learning in the development of blockchain infrastructure.

1. Regulatory Compliance and Cooperation

Engaging industry actors who do not voluntarily comply with regulatory frameworks remains a key challenge.

While some market participants adhere to licensing and oversight requirements, non-compliant actors create systemic risks.

Effective regulation requires mechanisms to bring these actors into compliance, providing regulators with a complete market overview.

Example: In Hong Kong, several institutions applied for licenses, but others did not, illustrating the difficulty of achieving universal compliance.



2. Citizen Privacy, Security, and Control

Deploying blockchain in public institutions, such as the NHS, must prioritise citizen protection.

Key considerations include:

Safeguarding vulnerable populations

Addressing digital literacy gaps

Ensuring citizens understand how their data is used

Implementing robust security to prevent breaches or misuse

Solutions should be designed with citizens at the centre to prevent unintended harms.

3. Global Applications and Strategic Impact

Blockchain's benefits extend well beyond domestic use.

Strategic international applications include:

Combating counterfeit pharmaceuticals in regions with pressured healthcare systems

Securing trade finance in emerging markets with limited financial infrastructure

The technology can enhance trust, transparency, and accountability in critical sectors globally.

4. Learning from International Precedents

The UK can accelerate blockchain development by observing successes and failures in jurisdictions such as Switzerland, Hong Kong, and the European Union.

Adopting proven approaches while avoiding known pitfalls allows the UK to build robust, citizen-centric blockchain infrastructure efficiently, without bearing the full cost and risk of pioneering experimentation.

Key Takeaway

Strategic, evidence-based adoption of blockchain requires balancing regulation, citizen protection, and global learning.

The UK is well-positioned to leverage international experience to implement secure, interoperable, and impactful blockchain solutions.

Conclusion

The roundtable concluded with clear recognition that building a national blockchain infrastructure represents a transformative opportunity for the UK's digital economy, public services, and global competitiveness. The evidence presented underscored both the urgency of the challenge - with other nations moving rapidly ahead- and the complexity of the barriers, ranging from technical implementation to public perception and regulatory frameworks.

The prevailing sentiment amongst participants was that the discussion phase must now transition to decisive, coordinated action. Success will require a balanced approach that champions innovation and positions the UK as a competitive jurisdiction for blockchain development, whilst simultaneously establishing robust governance frameworks, ensuring



strong and consistent regulatory enforcement and maintaining a steadfast commitment to building and preserving citizen trust.

Without this balance, participants warned, the UK risks either falling permanently behind international competitors or rushing into implementations that damage public confidence and set back adoption by years.

The evidence from Switzerland, Hong Kong, and the European Union demonstrates that clear regulatory frameworks, strategic research investment, and practical pilot programmes can successfully position a jurisdiction as a blockchain leader. The UK's challenge is to learn from these examples whilst adapting approaches to British institutional structures, legal traditions, and citizen expectations.

Closing Notes

These minutes were prepared by the BBA, the Secretariat of the APPG on Blockchain Technologies, based on a summary of the discussion themes from the roundtable discussion held on 3 December 2025. This summary was prepared under the Chatham House Rule. This summarised draft is not a verbatim transcript.

The views expressed represent the collective insights from the roundtable discussion and do not necessarily reflect the official positions of individual participants or their organisations.

Roundtable Sponsor: This APPG Roundtable was kindly supported by BlockMed Pro.

Secretariat Contact: The British Blockchain Association, Secretariat for the All-Party Parliamentary Group on Blockchain Technologies. www.britishblockchainassociation.org

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