Regulatory Updates

Europe

The European Union has voted its landmark legislation on crypto, **Markets in Crypto Assets (MiCA),** into law with 517 votes in favour and 38 against, with 18 abstentions. MiCA introduces a harmonised regulatory framework across the EU and covers stablecoin issuance, crypto asset services, token offerings, and marker abuse. It will protect investors through enhanced transparency and the establishment of a comprehensive system for issuers and service providers, including compliance with anti-money laundering regulations. Crypto-asset service providers (CASPs) will not be able to operate within the EU without a licence and authorisation. It introduces a classification of crypto assets (crypto-assets, utility tokens, asset-referenced tokens (ARTs) and e-money tokens (EMTs) but non-fungible tokens (NFTs) are excluded from the scope unless they fall under existing crypto-asset categories. Decentralised finance (DeFi) also falls outside of the scope of MiCA. Stablecoins are characterised as ARTs linked to various currencies, commodities, or crypto currencies while EMTs are linked to a single currency. It is a requirement that all crypto-assets issuers publish a white paper and submit it to their respective national authority prior to its publication. The European Banking Authority (EBA) will supervise issuers and will be responsible for maintaining a public register of non-compliant crypto-asset service providers. According to MiCA, crypto-asset market stakeholders will have to provide information about their environmental and climate footprint (source, source). The full law has been published in EU Official Journal and entered into force in June 2023.

On the regulatory clarity front, the European Commission has published a legislative proposal on a potential digital euro, facilitating the bloc's plans to introduce such a currency. The digital euro would exist alongside the existing euro as an additional form of online or electronic payment. It is worth noting, however, that the European Central Bank (ECB) will ultimately decide whether or not a digital euro will be issued, with a final decision expected later this year. The EU believes that a digital euro could support the Eurosystem's objectives of providing citizens with access to a safe form of money in a fast-changing digital world. The draft legislation suggests that the digital euro could come into use by 2026 or 2027.

The **BIS (Bank for International Settlements) Innovation Hub Nordic Centre** has published a report on how central bank digital currencies (CBDCs) can work for off-line payments. According to the survey included in the report, '49% of central banks consider offline payments with retail CBDC to be vital, while another 49% deemed it to be advantageous'. Another BIS survey on CBDCs reveals that 93% of central banks engaged in some form of central bank digital currency (CBDC) work in 2022, with retail CBDC work being more advanced than wholesale CBDC. Almost a quarter of central banks are piloting a retail CBDC, and over 80% see potential value in having both a retail CBDC and a fast payment system. The survey suggests that by 2030 there could be 15 retail and nine wholesale CBDCs in circulation. The emergence of crypto assets and stablecoins has accelerated CBDC work for nearly 60% of respondent central banks. Four central banks in The Bahamas, the Eastern Caribbean, Jamaica, and Nigeria have issued a live retail CBDC. The survey also indicates that stablecoins and other crypto assets are rarely used for payments outside the crypto ecosystem, with their use being trivial or limited to niche groups, mainly for remittances. (source).

Estonia's Financial Intelligence Unit (FIU) announced that, following the amendments to the Money Laundering and Terrorist Financing Prevention Act that took effect on 15 March 2022, the validity of 389 licences for providing virtual asset services in the country have expired, effectively reducing the number of active virtual asset service providers(VASPs) to 100.

Deutsche Bank has applied for a digital asset custody licence from BaFin, despite its past criticism of Bitcoin. The move indicates a change in Deutsche Bank's perspective on the crypto sector as, according to reports, the bank has been working on a crypto asset custody platform since late 2020 (source).

USA

On 13 July, a US judge ruled, in a decision that is considered a landmark win by Ripple in its legal battle with the SEC, that the **XRP token is not an investment contract and therefore not a security**. The SEC had sued Ripple, the company behind the XRP token, in 2020, alleging that the company broke securities laws. This ruling was welcomed by the cryptocurrency community and exchanges, which believe the outcome will help create more regulatory clarity. Coinbase, which was sued in June by the SEC on charges of operating an unregistered exchange and brokerage, is now more confident in its case against the SEC. Coinbase's chief legal officer, Paul Grewal, stated that this ruling strikes a blow to the idea that securities are being traded when people go onto exchanges and trade assets. However, the judge also ruled that the institutional sale of the tokens violated federal securities laws (source).

In June 2023, the **SEC filed 13 charges against Binance Entities and founder Changpeng Zhao**. The complaint charges violations of critical registration-related provisions of federal securities laws. 'Through 13 charges, we allege that Zhao and Binance entities engaged in an extensive web of deception, conflicts of interest, lack of disclosure, and calculated evasion of the law', SEC Chair Gary Gensler said in a statement about the lawsuit. However, a few weeks later, Binance and SEC reached a mutual agreement on user funds and all Binance's US customers' assets will be repatriated to the United States. According to the agreement, Binance is prohibited 'from spending corporate assets other than in the ordinary course of business'.

The United States government has announced the **National Standards Strategy for Critical and Emerging Technology**. According to the document, the US will prioritise standards development in eight areas, including 'digital identity infrastructure and distributed ledger technologies, which increasingly affect a range of key economic sectors'.

In May 2023, **NY Attorney General James proposed 'landmark legislation** to tighten regulations on the cryptocurrency industry to protect investors, consumers, and the broader economy'. The bill called the Crypto Regulation, Protection, Transparency and Oversight Act (CRPTO) would grant New York officials the authority to shut down businesses suspected of engaging in fraud or illegal activity, issue subpoenas, and apply penalties to crypto firms breaking state law. CRPTO must still be passed by NYC lawmakers for it to become state law.

UK

The **Financial Services and Markets Bill (FSMB) has been approved** by the House of Commons and is now in the final stages of consideration of amendments and royal assent before it is put into law. The Bill, recognises crypto as a regulated activity and stablecoins are now considered a means of payment under existing laws (source).

HM Treasury has published a **consultation on the first Financial Market Infrastructure Sandbox**, which excludes derivatives and unbacked crypto assets from the regulatory sandbox. Until there is more certainty in these frameworks, they will be subject to existing regulatory initiatives.

Rest of the World

Israel's parliament passed a bill according to which Israel may exclude foreign residents from paying capital gains taxes on the sale of digital currencies from Israel-based companies, in an effort to attract investors. The bill also suggests that the terms 'security' and 'digital currency' should be used separately(source).

By the end of the year, the **Financial Sector Conduct Authority (FSCA) in South Africa** will require all crypto exchanges to be licensed. With this move, South Africa becomes the first country in Africa to require digital asset exchanges to be licensed (source).

Thailand's Securities and Exchange Commission (SEC) has announced new guidelines for digital asset service providers. These guidelines aim to protect investors and require all digital asset service providers to warn customers about the risks of crypto-trading (source).

The **Monetary Authority of Singapore (MAS)** released new guidelines on 3 July that require cryptocurrency service providers to retain client funds in a statutory trust by the end of the year. The guidelines urge consumers to be vigilant and not deal with unregulated entities, 'as they risk losing all their assets'.

A 'Licensing Handbook for Virtual Asset Trading Platform Operators' was published by the **Securities and Futures Commission (SFC) of Hong Kong** in June 2023. The Handbook provides general information about licensing matters in relation to virtual asset trading platform operators and warns that, 'It is a serious offence to carry on a regulated activity and/or VA service in Hong Kong or actively market to the investing public of Hong Kong any services which constitute a regulated activity and/or VA service without the required licence(s)'.

The **Central Bank of the United Arab Emirates** (CBUAE) published new rules on anti-money laundering and combating the financing of terrorism for banking institutions engaging with crypto in the UAE. According to the rules, all licensed financial institutions (LFIs) are now required to verify the identity of all customers.

Market Updates

Bitcoin ETF gaining pace in the US
At least seven major institutional investment firms, including BlackRock, the world's largest asset manager, applied for a spot bitcoin exchange-traded fund (ETF) between June and July 2023 with the US Securities and Exchange Commission (SEC). According to Bloomberg, SEC approval can unlock USD 30trn capital for the bitcoin market. However, the regulator deemed the filings inadequate, citing a lack of information on surveillance arrangements.

Terra founder Do Kwon arrested, gets bail in Montenegro
Do Kwon, Terraform Labs founder and CEO, along with Han Chang-Joon, its chief financial officer, was arrested on 23 March in Montenegro following an Interpol red notice against Kwon for his alleged role in Terra's collapse. Both received bail on 12 May for EUR 400,000 each and subject to house arrest. Montenegro has an extradition agreement with the US but not with Singapore or South Korea. Meanwhile, the trial of Terraform Labs co-founder Shin Hyun-Seong and seven others began on 10 July in South Korea's capital, Seoul.

Binance caught up in legal and regulatory headwinds
The last few months have been tough for Binance, with falling trading values, loss of fiat partners, a spat of high profile resignations, and several charges and allegations in different countries ranging from operating an illegal trading platform to money laundering. The US SEC has sued Binance, the UK regulator revoked some of its licences, the Netherlands rejected its licence application, Belgium ordered it to cease operations, and France is investigating it over money laundering allegations. Binance, on the other hand, is diversifying amid regulatory pressures in the West, and recently received crypto licences from Thailand and Kazakhstan.

SEC-Binance.US agreement gets judicial approval
On 6 June, the SEC filed an emergency restraining order against Binance.US after alleging that Changpeng Zhao, the CEO of Binance, moved customer funds through Merit Peak, an entity he controls. The SEC and Binance reached an agreement on 16 June that only Binance.US employees can access client funds, hardware wallets, private keys, and root access to Binance.US's Amazon Web Services tools until the litigation is resolved.

South Korea's central bank, Samsung partner to research CBDC offline payments
The Bank of Korea (BoK, the central bank) signed a memorandum of understanding with Samsung Electronics on 15 May to research offline payments for South Korea's central bank digital currency (CBDC) using NFC on Samsung mobile devices. This is the second phase of BoK's 10-month-long CBDC simulation experimental research for retail usage.

Kazakhstan earned USD 7 million from mining tax in 2022
Kazakhstan, which is world's third largest bitcoin mining hub, earned approximately USD 7m in 2022 in tax from crypto mining entities. It introduced a mining tax at the beginning of 2022 based on electricity consumption by the miners. The country's bitcoin hash rate in January 2022 stood at 13.22%, right behind the US (37.84%) and China (21.22%).

Sequoia announces three-way split with focus on different regions
On 6 June, Sequoia Capital, one of the world's largest venture capital firms, with names like FTX and Trade Republic in its portfolio, announced a split into three entities, each focusing on specific markets: the US, China, and Asia. It cited brand confusion and global financial complexity, but analysts believe that the decision was taken in the wake of rising US-China tensions. The firm's US and European businesses will retain the Sequoia name, the India/Southeast Asia arm will become Peak XV Partners, and the China arm will be called HongShan.

Centralised exchanges pledge over USD 2.5bn for user protection funds
In the wake of FTX's collapse, several centralised exchanges have reportedly established user protection funds to a combined value of over USD 2bn. Binance has kept aside the largest sum of USD 1bn, OKX has USD 700M, Bitget has USD 300M, Huobi has kept 20,000 BTC as collateral while Coinbase grants GBP 150,000 (USD 189,000) of insurance to UK-based customers. Only Binance and Bitget have disclosed the on-chain address of these funds.

Scams, hacks, and rug pulls cause USD 656M losses in H1 2023
According to a report by Beosin, a Web3 security firm, a combined value of USD 656M in various cryptocurrencies was lost as a result of scams, hacks, and rug pulls in the first half of this year. This consists of USD 471.43M from 108 hacks, USD 108M from various scams, and USD 75.87M from 110 rug pulls. These numbers are sharply lower than in 2022, when USD 1.91bn and USD 1.65bn were lost in the first and second half of the year, respectively. Furthermore, 45.5% of stolen assets were recovered in 2023, compared to only 8% in 2022.

Austrian car-sharing company uses blockchain to tokenise fleet
Eloop, a Vienna-based car-sharing company, has tokenised a fleet of 100 Tesla cars. Owning the tokens implies owning a fraction of the fleet, and car rental revenue is distributed on the basis of token holdings. The

tokenisation is done in collaboration with Peaq Network, a Web3 network for the economy of things built on Polkadot blockchain. Eloop has plans for scaling the idea across Europe in future.

Crypto VC funding drops in fifth consecutive quarter
According to data from PitchBook, a financial data company, venture capital funding for cryptocurrency startups stood at USD 2.34bn across 382 deals in the second quarter of 2023, a drop from USD 2.6bn in Q1 2023 and way below the industry's peak of USD 12.14bn in Q1 2022. The decline can be attributed to regulatory uncertainties, especially in the US, and signs of an ongoing 'crypto winter'.

Technological Trends & Developments

Celo Proposes to Ditch Own Standalone Blockchain for Layer 2 Network on Ethereum.

The development team behind the Celo blockchain is proposing a transition from an independent Layer 1 blockchain to an Ethereum Layer 2 solution. The move aims to bring benefits like greater liquidity, improved security and enhanced compatibility. The migration would initially use Optimism's OP Stack, simplifying liquidity sharing between Celo and Ethereum and offering a seamless developer experience. Celo is already compatible with Ethereum's virtual machine (EVM), enabling easy porting of existing apps and development with familiar tools. The proposal includes plans for potential upgrades to a highly scalable validium-based zkEVM. Celo's native token, CELO, saw a 10% jump and reached a two-week high of USD 0.59 in value on the news. Vitalik Buterin, Ethereum's founder, expressed excitement about the proposal and offered technical suggestions.

Chainlink's Interoperability Protocol, Connecting Blockchains to 'Bank Chains', Goes Live.

Chainlink has launched its cross-chain interoperability protocol (CCIP), enabling cross-chain applications and services. The protocol is now accessible to early access users on Avalanche, Ethereum, Optimism, and Polygon blockchains. The protocol has been tested by 25 partners, with notable early adopters like Aave and Synthetix from the decentralised finance space. CCIP's interoperability has been vital in partnering with SWIFT, facilitating connections between financial institutions and blockchain networks for international money transfers. The next phase will involve pilot testing with SWIFT. Chainlink aims to connect all blockchains and bank chains through CCIP, and it will become available to all developers across five testnets, marking a step towards mainnet general availability.

Consensys Launches Linea Mainnet, Unlocking a New Level of User Experience and Scalability for Ethereum.

Consensys has unveiled the alpha version of Linea's zkEVM rollup network on the mainnet, a highly anticipated development that enhances user experience and scalability for Ethereum. Following a successful testnet phase, with 5.5 million unique wallets and over 47 million transactions, Linea offers an ecosystem of 100+ protocols and dApps with user-friendly integrations, including MetaMask, reducing friction for developers and

users. Boasting faster throughput and transaction fees up to 15 times cheaper than Ethereum Layer 1, Linea is attracting DeFi applications, NFTs, and gaming and social apps. The zkEVM is fully EVM compatible and Consensys is launching the Linea Ecosystem Investment Alliance (EIA) with 30+ venture capital firms to support builders with dedicated capital and a clear network pipeline. Additionally, early testers are rewarded and a major NFT collection celebrates Linea's launch, marking a pivotal step in the Web3 ecosystem's growth and scalability.

Layer 2 Network zkSync Era Upgrades Proving System

On 17 July, Matter Labs – the team behind zkSync Era, Ethereum's third-largest Layer 2 network – introduced an upgraded STARK-based proving system called Boojum, significantly reducing computational requirements and transaction fees, encouraging future decentralisation. zkSync Era's success is evident with EUR 581M in total value locked and the highest activity among Layer 2 networks, processing 24M transactions in the first days of July. The recent shift from SNARK to STARK-based proofs has led to improved performance, enhanced decentralisation and reduced fees. The introduction of the ZK Stack further strengthens Matter Labs' commitment to building a modular tech stack for Layer 2 networks, supporting low latency and shared liquidity and realising the vision of 'hyperchain' scaling. Boojum's fast finality and interoperability capabilities between hyperchains make it a crucial step towards a decentralised ecosystem. Nevertheless, the team acknowledges the need for scalability to handle high-volume, near real-time transactions in the future.

Base Opens Up to Developers Ahead of August Mainnet Launch

Coinbase's highly anticipated Layer 2 network Base opened its doors to developers on 12 July, ahead of its public launch scheduled for early August. Leveraging Optimism's OP Stack, Base offers a modular open-source framework for deploying customised Layer 2 solutions. Optimism hopes to establish in the future a unified multi-chain ecosystem of L2s leveraging the OP Stack called the superchain. The network aims to attract builders who will create innovative products to bring one billion users onto the blockchain. Several projects are already building on Base, including Blackbird, a restaurant loyalty platform, OAK, a community token for Oakland residents, and Parallel, an NFT trading card game. As the competition to scale Ethereum intensifies, Base joins the likes of Arbitrum, Optimism, zkSync, Polygon, and Consensys in offering cutting-edge scaling solutions. Developers deploying code on Base before the public launch will be eligible for a non-transferable NFT called Genesis Builder, designed by the artist Klara Vollstaedt.

Ethereum Mainnet Finality Incident

On 11 and 12 May, the Ethereum mainnet experienced its first inactivity leaks. More specifically, on 11 May, the consensus layer failed to finalise 47 blocks, which is a process that should have taken place during 4 epochs, and the following day the same production issues occurred for 149 blocks, which corresponded to the more significant period of 9 epochs. During the second occurrence, after the passing of 5 epochs, inactivity penalties amounting to approximately 28 ETH started being applied to the validators of these blocks, which notably demonstrated that the protocol for inactivity leaks is being followed by the mainnet as it should. Despite this, no validators' staked funds were slashed, with the exception of a handful of cases, in which there was operator error when validators attempted to switch their consensus clients or performed complex unsafe failovers. However, apart from the penalties, this period of inactivity also meant that validators lost opportunities for more revenue, which can be estimated at around 5 ETH at the very least for the blocks not finalised, in addition to 50 ETH more taking MEV into account. The triggering actions that caused this incident were failed attempts of certain consensus clients to process attestations targeting old checkpoints. In order to confirm the validator committees, these clients tried to recompute a past state of the Beacon chain, but they were not prepared to move forward with such complex procedures in time, resulting in delayed finality

and reduced block throughput. It should be noted that during this period the overall network did not go down and users could still perform transactions on it. All consensus clients were affected by this incident, although validators using the Lighthouse client managed to continue operating due to its different design and its decision to drop attestations in order to stay live. The teams behind the Prysm client and Teku immediately released hotfix upgrades to urgently resolve this issue, and further stable version updates followed.

Algorand Cuts Block Time After New Upgrade

A new protocol upgrade went live on Algorand's mainnet on 22 June – during a week marking the mainnet's fourth anniversary – which, among other new features, aimed to reduce the block production speed. More specifically, there was a tenfold decrease in block finalisation, which means that, at the moment, block time is down to about 3.3 seconds, without making any compromises by the prolonging of finality processes. This upgrade brings the user experience even closer to that of the traditional Web 2.0, while maintaining all the advantages of blockchain technology. The other new features in the update include a new powerful simulator for smart contracts, group resource sharing for application calls capabilities, devmode timestamp control for testing dApps, new endpoints for transaction group state updates, and the appearance of a new tool for flexible and lightweight data access called Conduit.

Rollux – EVM-Compatible Layer 2 Goes Live

Sys Labs, the developer team behind the suite of Web3 products of the same name, and founders of the Syscoin Layer 1 blockchain, launched a new EVM-compatible Layer 2 chain on 28 June called Rollux. Built upon Syscoin, which offers smart contract capabilities through an EVM-like state machine, Rollux acts as a rollup that, just like Syscoin, is secured by Bitcoin miners through a PoW process called merged mining. Merged mining, also known as auxiliary proof-of-work, essentially reuses an already completed mining process that was performed in a source chain, to validate transactions in other blockchains, something that implies that this process is carbon-free from the destination blockchain's perspective. In general, Rollux offers scalability to Layer 1 by optimising the performance of Ethereum-compatible applications, while at the same time using the robust security features of Bitcoin. This combination of different functionalities solves the blockchain trilemma, while presenting the highest-performing EVM-rollup solution, providing unparalleled speed, scalability, and affordability.

Tezos Blockchain Gets 'Nairobi' Upgrade

On Monday 26 June, the Tezos blockchain moved from the 'Mumbai' protocol state, to its latest 'Nairobi' upgrade. This upgrade brings an eightfold increase in TPS, an improved gas charging model based on network usage, and enables its smart rollups, which allow for improved network usage, to be automatically updated in Tezos upgrades and adopt them. This new upgrade also renamed endorsements to attestations, in order to clarify that the endorsement process only confirms the existence of a new block and the transactions to be contained in it and clear up any confusion about it constituting the validation process. Validation is being performed by bakers, who stake their funds and participate in consensus committees, which afterwards approve the contents of a block.

Zora Launches Layer 2 Chain

On 21 June, the popular Zora platform used by creators and brands to mint NFTs, announced the launch of the Zora network, a Layer 2 solution meant to provide its monthly active users improved digital infrastructure. It is secured by

Ethereum's Layer 1 and built upon the Optimism scaling network chain, with support by over 35 Web3 platforms. The integration of the Zora marketplace into the network is seamless, and all new NFT minting operations are made faster and cheaper, with emphasis being given to gas efficiency, taking advantage of the Ethereum network's low gas fees, and scalability.

Matter Labs Releases Toolkit for Building Ethereum Rollups

Matter Labs, the developers behind the launch of the zkSync Era blockchain, released a suite of tools for the development of ZK-powered custom blockchains called hyperchains. This toolkit, called ZK Stack, is equivalent to Optimism's modular framework for the creation of the interconnected Layer 2 superchains. ZkSync Era is a Layer 2 protocol itself, which scales ethereum using zero-knowledge proofs. Hyperchains operating on top of zkSync Era, will be composable and interoperable, enabling almost-instantaneous transfers of liquidity and flash loans between protocols, in a similar system with the one that application-specific multichains create. All ZK Stack code is publicly available, and developers have already started building using the toolkit, with the hyperchains created not being focused on specific dApps, but rather used for projects with specific requirements related to privacy, speed, and data availability. This framework makes use of recursive scaling, in which transactions are batched into a ZK proof process, and then a series of those ZK proofs is compressed into one single proof, providing significant scalability capabilities for the system. It should be noted, however, that although the theoretical connection with other ZK rollups is feasible, Matter Labs representatives have stated that this as an unlikely scenario, meaning that the ZK Stack will not provide any overall solution to the ZK rollup interoperability issues in the near future.