White Paper

Bio Protocol(BIO) Whitepaper

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BIO -8,18 % BNB -3,49 % SOL -2,36 %

CRYPTO-ASSET WHITE PAPER - [BIO]

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TABLE OF CONTENTS

I. DATE OF NOTIFICATION

The Date of Notification of this Crypto-Asset White Paper is 2025-11-20.

II. STATEMENTS

A. This Crypto-Asset White Paper has not been approved by any Competent Authority in any Member State of the European Union. OKX Europe Limited is solely responsible for the content of this Crypto-Asset White Paper.

B. This Crypto-Asset White Paper complies with Title II of the Regulation (EU) 2923/1114, to the best of the knowledge of the management body, the information presented in the Crypto-Asset White Paper is fair, clear, and not misleading and the Crypto-Asset White Paper makes no omission likely to affect its import.

C. The Crypto-Asset White Paper provides that BIO may not be transferable, or liquid, or lose its value, in part or in full.

D. The Utility Token referred to in this Crypto-Asset White Paper may not be exchangeable against the good or service promised in the Crypto-Asset White Paper, especially in the case of a failure or discontinuation of the Crypto-Asset Project. This statement is TRUE.

E. The Crypto-Asset referred to in this Crypto-Asset White Paper is not covered by the investor compensation schemes under the Directive 97/9/EC of the European Parliament and of the Council.

F. The Crypto-Asset referred to in this Crypto-Asset White Paper is not covered by the deposit guarantee schemes under Directive 2014/49/EU of the European Parliament and of the Council.

III. WARNING

A. The summary should be read in conjunction with the content of the Crypto-Asset White Paper.

B. The Prospective Holder should base any decision to purchase this Crypto-Asset on the content of the Crypto-Asset White Paper as a whole and not on the summary alone.

C. The offer to the public of the Crypto-Asset does not constitute an offer or solicitation to purchase financial instruments and that any such offer or solicitation can be made only by means of a prospectus or other offer documents pursuant to the applicable National Law.

D. This Crypto-Asset White Paper does not constitute a prospectus as referred to in the Regulation (EU) 2017/1129 of the European Parliament and the Council or any other offer document pursuant to the European Union or National Law.

E. The BIO token is a crypto-asset implemented as an ERC-20 standard token on the Ethereum blockchain. The token is also deployed on the Base network (an Ethereum Layer 2) and as an SPL standard token on the Solana blockchain. The token has a maximum total supply fixed at 3,320,000,000 units. The BIO token is a utility token that grants holders the right to participate in the governance of the BIO Protocol, a decentralized science (DeSci) platform. This includes the right to propose and vote on protocol upgrades, and platform parameters. Holders may also stake the token to participate in the protocol's curation mechanisms. There are no obligations attached to holding the BIO token, nor does it represent any form of ownership, equity, or claim on the assets or profits of the Issuer or any related entity. Rights are exercised by interacting with the protocol's smart contracts via a compatible crypto-asset wallet.

F. The BIO token provides holders with access to specific functionalities within the BIO Protocol. The primary utilities include: **Governance**: Holders can propose and vote on governance proposals concerning the protocol's development and parameter changes. The weight of a holder's vote is typically proportional to the number of tokens held or staked. **Staking & Launchpad Access**: Holders can stake BIO tokens to earn "BioXP". The quantity of BioXP earned provides holders with access to participate in the funding of new projects via the "Ignition Sales" on the BioLaunchpad. **AI Agent Interaction**: The token is intended for use within the protocol's "Bio Agents" infrastructure, which provides on-chain, AI-driven tools for automating scientific research, generating hypotheses, and managing data. The quality and availability of these services depend on the continued operation and development of the BIO Protocol. The BIO token is freely and instantly transferable, utilising the underlying blockchain network's standard processes.

G. This whitepaper is published solely in connection with the admission to trading of the BIO token on OKX Europe Limited's trading platform. There has been no offer of the crypto-asset to the public, and the crypto-asset has not been made available in exchange for fiat currency or other crypto-assets prior to its listing. The crypto-asset will be admitted to trading via OKX Europe Limited, an authorised crypto-asset service provider ("CASP") operating within the European Union. The trading admission does not involve any subscription, sale, or fundraising process. The purpose of this document is to provide key information regarding the characteristics of the crypto-asset, its governance, rights, and associated risks, to enable informed decision-making by users and market participants in the context of its admission to trading. Access to the crypto-asset on the trading platform may be subject to user verification, platform conditions, or applicable legal restrictions depending on the jurisdiction.

IV. INFORMATION ON RISKS

1. Offer-Related Risks

This whitepaper is submitted by OKX Europe Limited solely for the purpose of the assets admission to trading. No public offer of BIO tokens is being made by the issuer or OKX Europe Limited.

Risks associated with the admission to trading include;

Service-related Interruption; Holders may be unable to access the utility due to technical, operation, or regulatory disruptions.

Jurisdictional limitations; BIO services or token utility may not be available in all jurisdictions, potentially restricting access.

Platform Reliance; Access depends on third-party infrastructure (wallets,platforms) and service interruptions or failures may affect token utility.

Limited Liability; OKX Europe Limited assumes no responsibility for the issuers project continuation, and token ownership does not confer contractual rights or guarantees.

Unexpected Risks: Beyond the risks outlined in this whitepaper, there may be additional risks that are currently unforeseen. It is imperative to note that certain risks may emerge from unforeseen events, changes, or interactions among factors that are difficult to predict. These unexpected risks may significantly and negatively impact the crypto-asset, the project, or the parties involved.

2. Issuer-Related Risks

Operational Risks; There is a risk that the issuer may face financial or operational difficulties, including insolvency, which could impact the continued development or availability of the services associated with the BIO token.

Counterparty Risks; Counterparty risks may arise where the issuer relies on third-party service providers or technology partners.

Reputational Risks; Adverse media and/or damage or loss of key personnel could negatively affect the ecosystem that the BIO token lives on.

Competition Risk; The issuer may face increased competition or changes in market conditions that affect its ability to carry out its objectives.

Regulatory Risks; The issuer may be subject to investigations, enforcement actions, or change in regulation that affect the tokens legal status in certain jurisdictions.

Disclosure Risks; The issuer may not be required to provide financial statements, limiting BIO token holders visibility into the financial health status of the issuer/project.

Issuer Risks; The information provided is based solely on publicly available sources and does not constitute any form of guarantee or warranty as to its accuracy or completeness.

3. Crypto-Assets-Related Risks

Market Volatility; The BIO token may be subject to significant volatility and could lose value rapidly, either due to market conditions or otherwise (issuer-related/technology/project implementation risks)

Utility Risk; The BIO tokens utility depends on access to certain services, and any modification or discontinuation of those services could reduce the associated utility of the token.

Smart Contract Risk; The BIO token may operate through smart contracts that may contain vulnerabilities, even if audited, and upgrades to the protocol or governance changes may affect functionality.

Liquidity Risk; Periods of low/limited liquidity may occur, particularly if the demand for the token or its use case decreases, which could have adverse effects on the BIO tokens price and future use cases.

4. Project Implementation-Related Risks

Scalability Issues; There is a risk that the project may not be implemented or scaled as intended. Technical limitations or infrastructure bottlenecks could hinder the expected scalability of the project, especially if user demand exceeds network or protocol capacity.

Governance Risk; The project may be subject to governance processes that involve on-chain voting or community proposals. Misaligned incentives, low participation, or malicious actors may affect the outcome of governance decisions and disrupt the project's roadmap.

Centralisation Risk; Similar to governance risks outlined above, centralisation within the governance process, or validator centralisation could lead to a lack of decentralization within the network, which carries future risks in terms of trust within the project, and also in regards to future roadmaps where plans may not reflect the interests of the broader user base.

5. Technology-Related Risks

Blockchain Performance Risk; The Ethereum, Base, and Solana blockchains, on which the token is issued, may experience downtime or congestion, which could delay or prevent token transfer or utility usage.

Consensus Failure Risk; A failure in the blockchains consensus mechanism could result in halted transactions, unexpected behavior, or loss in network integrity.

Smart Contract Vulnerabilities; Although the token uses audited or standard smart contract makeups (ERC-20 + SPL standard), undetected bugs, exploits, or implementation errors could compromise functionality or security.

Upgradeability Risk; if the token or related contracts are upgradeable and have designated "owner" addresses, this introduces a central point of failure, and could be misused by malicious actors.

Third-party Infrastructure Dependency; Interaction with the token or project may rely on external infrastructure (APIs, wallet services, off-chain governance voting). Outages or attacks may interrupt access to token-related services.

Interoperability Risk; If the token interacts with other chains, bridges, or oracles, failures or exploits in those systems could affect the tokens operations.

Protocol-level Risk; Upgrades or forks of the protocol itself may affect the token, which could lead to compatibility issues and/or unexpected token behaviour.

Emerging Technology Risk; Advances in computing or undiscovered vulnerabilities in cryptographic algorithms may pose long-term security risks to the blockchain or associated smart contracts.

Sequencing Risk; The token may rely on a centralised sequencer(s) to process transactions to the native L1 network. If the sequencer(s) experience downtime, censorship, or misuse, transaction ordering and availability may be adversely affected.

6. Mitigation Measures

Blockchain Performance Risk; The underlying blockchains mitigate performance risks in several ways. The Ethereum network operates on a Proof-of-Stake (PoS) consensus mechanism and is undergoing scalability upgrades. It uses a gas fee market (EIP-1559) to manage congestion and allow users to prioritise transactions. Base, as an Ethereum Layer 2, mitigates Ethereum's high fees and congestion by batching transactions off-chain before settling them to Ethereum, offering higher throughput. Solana is a high-throughput Layer 1 network designed for speed and low-cost transactions using its Proof-of-History (PoH) timing mechanism; it is implementing local fee markets to better manage network congestion during periods of high demand.

Consensus Failure Risk; All three networks have mechanisms to ensure network integrity. Ethereum's PoS consensus relies on a large, globally distributed set of validators who stake ETH as collateral. Malicious behaviour is deterred by "slashing" penalties, and network integrity is secured by finality checkpoints. Base derives its consensus security from Ethereum, as all its batched transactions are ultimately settled and finalised on the Ethereum Layer 1 network. Solana uses a hybrid PoS and PoH consensus mechanism. It also enforces slashing penalties for malicious validators and is supported by a large, permissionless, and globally distributed validator set to maintain decentralised integrity.

Smart Contract Vulnerabilities; This token is deployed using widely adopted standards: ERC-20 on Ethereum/Base and SPL on Solana. The security of these token standards is bolstered by their extensive use, open-source nature, and continuous community review. On Ethereum and Base, developers mitigate risks by using battle-tested libraries like OpenZeppelin. On Solana, the SPL token program is a foundational, audited component of the network. While this reduces the risk of token-level bugs, vulnerabilities could still exist in other smart contracts that interact with the token.

Upgradeability Risk; The risk associated with upgradeable contracts is mitigated by on-chain governance and security practices. On Ethereum, Base, and Solana, the primary mitigation for contracts with "owner" addresses is to secure those addresses. This is typically achieved by requiring multiple signatures (a "multisig") for any change, implementing mandatory time-delays that allow users to review and react to pending upgrades, or by renouncing ownership entirely, making the contract immutable. In many cases, this control is transitioned to a token-holders' DAO.

Third-party Infrastructure Dependency; To mitigate reliance on single, centralised service providers, the ecosystems of all three chains support a diverse set of infrastructure. For Ethereum and Base, decentralised indexing protocols (e.g., The Graph) and multiple independent RPC providers are available, allowing applications to avoid a single point of failure. The Solana ecosystem also features a large number of independent RPC providers and data solutions that applications can utilise to ensure high availability and censorship resistance.

Interoperability Risk; This token relies on bridges to move between Ethereum, Base, and Solana. This risk is mitigated by the use of established and audited bridging technologies. Transfers between Ethereum and Base are typically handled by the official Base Bridge, which is secured by the L1 settlement process. Transfers to and from Solana rely on third-party bridges (e.g., Wormhole) which have their own security models, often involving a network of guardians, and are subject to their own extensive audits.

Protocol-level Risk; All three blockchains manage protocol upgrades through public and transparent processes. Ethereum's roadmap and upgrades (EIPs) are subject to extensive public research, developer discussion, and testing. Base, built on the OP Stack, inherits its upgrade and governance processes from the Optimism Collective, which follows a public governance model. Solana's core protocol development is led by multiple teams, with network upgrades publicly discussed, validated on testnets, and progressively rolled out to the mainnet validator network.

Emerging Technology Risk; Long-term threats, such as advancements in quantum computing, are actively monitored by the core development communities of all three networks. The Ethereum Foundation and Solana's core developers are actively researching and developing quantum-resistant cryptographic solutions. The modular architectures of Ethereum and Base (which settles

to Ethereum) are designed to allow for future cryptographic upgrades if a threat becomes viable. Similarly, Solana's network protocol can be upgraded to adopt new cryptographic standards as needed to defend against future threats.

V. GENERAL INFORMATION

A. Information of the Offeror or the Person Seeking Admission to Trading

A.1 Name: N/A A.2 Legal Entity Identifier (LEI): N/A A.3 Legal Form, if applicable: N/A A.4 Registered Office, if applicable: N/A A.5 Head Office, if applicable: N/A A.6 Date of Registration [YYYY-MM-DD]: N/A A.7 Legal Entity Number: N/A A.8 Contact Telephone Number: N/A A.9 E-Mail Address: N/A A.10 Response Time (days): N/A A.11 Members of Management Body: N/A A.12 Business Activity: N/A A.13 Newly Established: N/A A.14 Financial Condition for the past Three Years: N/A A.15 Financial Condition since Registration: N/A A.16 Parent Company, if applicable: N/A A.17 Parent Company Business Activity, if applicable: N/A

B. Information of the Issuer

This section shall ONLY be completed if the information is different to that listed in section 1, above.

B.1 Is the Issuer different from an offeror or person seeking admission to trading?: TRUE B.2 Name: **Bio.xyz** Association B.3 Legal Entity Identifier (LEI): No information could be identified in regards to this field at the time of drafting this whitepaper. B.4 Legal Form, if applicable: No information could be identified in regards to this field at the time of drafting this whitepaper. B.5

Registered Office, if applicable: No information could be identified in regards to this field at the time of drafting this whitepaper. B.6 Head Office, if applicable: No information could be identified in regards to this field at the time of drafting this whitepaper. B.7 Date of Registration [YYYY-MM-DD]: No information could be identified in regards to this field at the time of drafting this whitepaper. B.8 Legal Entity Number: No information could be identified in regards to this field at the time of drafting this whitepaper. B.9 Members of the Management Body: Line ID: 1 Identity: No information could be identified in regards to this field at the time of drafting this whitepaper. Business Address: No information could be identified in regards to this field at the time of drafting this whitepaper. Function: No information could be identified in regards to this field at the time of drafting this whitepaper. B.10 Business Activity: The purpose of the Association is to act as the legal steward for the BIO Protocol, supporting the development, promotion, and adoption of its decentralized science (DeSci) ecosystem and related technologies. B.11 Parent Company: No information could be identified in regards to this field at the time of drafting this whitepaper. B.12 Parent Company Business Activity: No information could be identified in regards to this field at the time of drafting this whitepaper.

C. Information about OKX Europe Limited ("OKX")

This section shall ONLY be completed if OKX draws up the Crypto-Asset White Paper.

C.1 Name: OKX Europe Limited C.2 Legal Entity Identifier: 54930069NLWEIGLHXU42 C.3 Legal Form, if applicable: Private Limited Company C.4 Registered Office, if applicable: Piazzetta Business Plaza, Office Number 4, Floor 2, Triq Ghar il-Lembi, Sliema SLM1562, Malta C.5 Head Office, if applicable: See C.4 C.6 Date of Registration: 2018-09-07 C.7 Legal Entity Registration Number: C 88193 C.8 Members of Management Body: Line ID: 1 Identity: Erald Henri J. Ghoos

Business Address: See C.4 Function: Director Line ID: 2 Identity: Fang Hong Business Address: See C.4 Function: Director Line ID: 3 Identity: Joseph Portelli Business Address: See C.4 Function: Director Line ID: 4 Identity: Wei Man Cheung Business Address: See C.4 Function: Director C.9 Business Activity: OKX Europe Limited is licensed as a Crypto-Asset Service Provider by the Malta Financial Services Authority, bearing licence number OEUR-24352, to provide crypto services under the Markets in Crypto-Assets Act, Chapter 647, Laws of Malta and is the operator of a Trading Platform for Crypto Assets, in accordance with Article 3(1)(18) of Regulation (EU) 2023/1114 (MiCA). C.10 Reason for Crypto-Asset White Paper Preparation: This crypto-asset whitepaper has been prepared in accordance with Regulation (EU) 2023/1114 (MiCA) for the purpose of:

The admission to trading of BIO on regulated platforms, starting with the OKX Exchange. OKX Europe Limited as a result of being a licenced CASP endeavours to fulfill the obligations established under MiCA and the respective MFSA guidelines to:

Notify this whitepaper to the MFSA;

Publish the whitepaper publicly;

And ensure its registration in the MiCA register maintained by the European Securities and Markets Authority (ESMA). This whitepaper has been prepared to provide transparent, accurate, and fair information to prospective token holders and regulatory authorities in line with the principles of MiCA. C.11 Parent Company: OKC International Holding Company Limited C.12 Parent Company Business Activity: The primary business activity of the parent company is holding of investments.

Other Information

This section shall ONLY be completed if someone, other those referenced in Section 1 to 3, compile and complete the Crypto-Asset White Paper.

C.13 Other Persons drawing up the Crypto-Asset White Paper: N/A C.14 Reason for Crypto-Asset White Paper Preparation: N/A

VI. INFORMATION ABOUT THE CRYPTO-ASSET

D. Information about the Crypto-Asset Project

D.1 Project Name: BIO Protocol D.2 Crypto-Assets Name: See F.14 D.3 Abbreviation: See F.14 D.4 Crypto-Asset Project Description: BIO Protocol is a decentralized science (DeSci) platform that integrates artificial intelligence and blockchain technology. Its objective is to accelerate biotechnology development by creating an ecosystem for funding, developing, and owning tokenized biotech projects and intellectual property (IP). The platform features a launchpad (BioLaunchpad) for new projects and a network of autonomous AI researchers ("Bio Agents") to automate and scale scientific discovery. D.5 Details of all natural or legal persons involved in the implementation of the Crypto-Asset Project: Name: Paul Kohlhaas Role: Tokenomics Business Address: Switzerland Name: James Sinka Role: R&D, Community Business Address: Boston, United States Name: Jose Pinto Role: Legal Counsel Business Address: Switzerland Name: Clemens Ortlepp Role: Product Business Address: Berlin, Germany Name: Nate Hindman Role: Growth Business Address: Israel Name: Stefano Glauser Role: Operations Business Address: Dubai, United Arab Emirates Name: Alex Dobrin Role: Marketing Business Address: Romania Name: Lukas Weidener Role: Operations Business Address: Germany Name: Jaeyawat Manphadungkij Role: Ecosystem Business Address: No information could be identified in regards

to this field at the time of drafting this whitepaper. Name: Elliott Brunet Role: Tech Business Address: Germany Name: Sean Brennan Role: Agentic EIR Business Address: United States Name: Erik Van Winkle Role: Operations Business Address: United States Name: Eda Arslan Role: Marketing Business Address: Germany Name: Steven Zuber Role: Marketing Business Address: Switzerland Name: Ritvik Singh Role: AI Business Address: India Name: Aakaash Meduri Role: bioML Business Address: United States Name: Marko Brkic Role: AI Business Address: Serbia Name: Emre Ulgac Role: AI Business Address: Berlin, Germany Name: Johannes Weniger Role: AI Business Address: Berlin, Germany Name: Paul Drouet Role: Product Business Address: Paris, France Name: William Fang Role: Strategy Business Address: Taiwan D.6 Utility Token Classification: TRUE D.7 Key Features of Goods/Services for Utility Token Projects, if applicable: The BIO Protocol provides a decentralized platform offering a suite of services for the biotechnology and decentralized science (DeSci) community. The key goods and services provided by the project include:

The BioLaunchpad: A service that enables new DeSci projects and AI Agents to raise funding from the community through "Ignition Sales." This provides a streamlined mechanism for project creators to access capital and for community members to support early-stage scientific research.

Bio Agents Infrastructure: A platform for the creation, deployment, and operation of autonomous AI agents (e.g., Aubrai). These agents are designed to automate and scale scientific research tasks, such as data analysis, hypothesis generation, and managing on-chain research workflows.

Decentralized Governance Framework: The protocol provides a DAO-based governance system. This service allows the community to collectively manage the platform's development, control its treasury, and modify key protocol parameters.

Curation and Staking Mechanisms: The protocol offers services for community members to curate and signal support for specific research projects. This "BioXP" loyalty and reputation system helps to validate and prioritize initiatives seeking funding within the ecosystem. D.8 Plans for the Token: **Past Milestones**

TGE: The BIO token generation event occurred on 2025-01-03.

Protocol Launch: The mainnet deployment of the BIO Protocol curation and liquidity platform on Ethereum.

Protocol V2 Upgrade: Launch of the V2 protocol, introducing an AI-driven, multi-chain architecture.

BioLaunchpad & BioXP: Successful deployment of the "BioXP" loyalty points system and the completion of BioLaunchpad Season 1, funding several DeSci projects.

Bio Agents: Deployment of the first autonomous AI research agents (e.g., Aubrai) on the platform. **Future Milestones**

BioLaunchpad Season 2: Rollout of the upgraded launchpad, introducing USDC-based funding pools, improved staking incentives, and integration with new liquidity venues (e.g., AerodromeFi).

Governance Expansion: Rollout of expanded on-chain governance modules to further decentralize protocol control.

Cross-Chain Expansion: Enhancing cross-chain interoperability, including a planned bridge to the BNB chain.

AI Agent Expansion: Expanding the "Bio Agents" framework to more researchers and scientific domains. D.9 Resource Allocation, if applicable: The maximum supply of

3,320,000,000 BIO tokens was allocated at the token generation event as follows:

Community Airdrop: 6% (199,200,000 BIO) | 1yr cliff, 6yr vest

Community Auction: 20% (664,000,000 BIO) | 50% liquid, 50% 1yr linear vest Ecosystem Incentives: 25% (830,000,000 BIO) | No vesting

Core Contributors: 21.2% (703,840,000 BIO) | 1yr cliff, 6yr vest

Molecule Ecosystem Fund: 5% (166,000,000 BIO) | 4yr vest

Molecule: 5% (166,000,000 BIO) | 4yr vest

Investors: 13.6% (451,520,000 BIO) | 1yr cliff, 4yr vest

Advisors: 4.2% (139,440,000 BIO) | 1yr cliff, 6yr vest Total: 100% (3,320,000,000 BIO) D.10 Planned Use of Collected Funds or Crypto-Assets, if applicable: The crypto-asset allocations managed by the Issuer (**Bio.xyz** Association) for protocol development and ecosystem growth are primarily the "Ecosystem Incentives" (25% of total supply, or 830,000,000 BIO) and the "Molecule Ecosystem Fund" allocation (5% of total supply, or 166,000,000 BIO). These reserves are intended to be used to support the long-term growth of the BIO Protocol. Planned uses include funding for protocol research and development, community grants, marketing and adoption initiatives, and operational expenses. In some instances, usage and distribution of ecosystem incentives funds will depend on individual governance votes.

E. Information about the Offer to the Public of the Crypto-Asset or Its Admission to Trading

E.1 Public Offering or Admission to Trading: ATTR E.2 Reasons for Public Offer or Admission to Trade: Facilitating secondary trading for users on the OKX Trading platform in compliance with the MiCA regulatory framework. E.3 Fundraising Target, if applicable: N/A E.4 Minimum Subscription Goals, if applicable: N/A E.5 Maximum Subscription Goals, if applicable: N/A E.6 Oversubscription

Acceptance: N/A E.7 Oversubscription Allocation, if applicable: N/A E.8 Issue Price: N/A E.9 Official Currency or Any Other Crypto-Assets determining the Issue Price: N/A E.10 Subscription Fee: N/A E.11 Offer Price Determination Method: N/A E.12 Total Number of Offered/Traded Crypto-Assets, if applicable: 3,320,000,000. E.13 Targeted Holders: N/A E.14 Holder Restrictions: N/A E.15 Reimbursement Notice: N/A E.16 Refund Mechanism: N/A E.17 Refund Timeline: N/A E.18 Offer Phases: N/A E.19 Early Purchase Discount: N/A E.20 Time-Limited Offer: N/A E.21 Subscription Period, beginning [YYYY-MM-DD]: N/A E.22 Subscription Period, end [YYYY-MM-DD]: N/A E.23 Safeguarding Arrangement for Offered Funds/Crypto-Assets: N/A E.24 Payment Methods for Crypto-Asset Purchase: In line with OKX current payment method offering. E.25 Value Transfer Methods for Reimbursement: N/A E.26 Right of Withdrawal, if applicable: N/A E.27 Transfer of Purchased Crypto-Assets: In line with OKX current Terms of Service. E.28 Transfer Time Schedule [YYYY-MM-DD]: N/A E.29 Purchaser's Technical Requirements: In line with OKX current Terms of Service. E.30 Crypto-Asset Service Provider (CASP) name, if applicable: OKX Europe Limited E.31 CASP identifier, if applicable: 54930069NLWEIGLHXU42 E.32 Placement Form: NTAV E.33 Trading Platforms Name, if applicable: OKX E.34 Trading Platforms Market Identifier Code (MIC): n/a E.35 Trading Platforms Access, if applicable: Users may access BIO through the OKX Trading Platform via the Application Program Interface ("API"), the Application Software ("OKX App"), as well as the official OKX website as follows; **www.okx.com**. E.36 Involved Costs, if applicable: In line with the OKX current Terms of Service. E.37 Offer Expenses: n/a E.38 Conflicts of Interest: A crypto-asset is listed following a decision rendered independently by the Listing Committee in line with the internal policies of OKX Europe Limited. Any potential disclosures that may arise of conflicts of interest are published on the OKX website. E.39 Applicable Law: Malta E.40 Competent Court: Malta

F. Information about the Crypto-Assets

F.1 Crypto-Asset Type: Other Crypto-Asset F.2 Crypto-Asset Functionality: The BIO token is a multi-functional utility token that operates as the central asset of the BIO Protocol. Its primary function is governance, enabling holders to propose and vote on protocol upgrades, and platform parameters. It also functions as a staking asset, allowing users to lock their tokens to earn "BioXP" points, which grant access to platform services. Finally, it functions as an access token for interacting with the protocol's core features, including the BioLaunchpad and the "Bio Agents" AI infrastructure. F.3 Planned Application of Functionalities: All functionalities from the above specified list apply as of the writing of this whitepaper. F.4 Type of White Paper: OTHR F.5 Type of Submission: NEWT F.6 Crypto-Asset Characteristics: The BIO token is the native utility and governance crypto-asset of the BIO Protocol, an AI-driven decentralized science (DeSci) platform. The token is issued as an ERC-20 standard token on the Ethereum blockchain and is also deployed on the Base network (an Ethereum Layer 2) and as an SPL token on the Solana blockchain. It is designed to facilitate decentralized governance, access to the BioLaunchpad via the BioXP staking system, and interaction with on-chain "Bio Agents". The initial and maximum supply of the token at genesis was 3,320,000,000 BIO; however, this supply may be subject to potential future modification via the protocol's on-chain governance. F.7 Commercial Name or Trading Name, if applicable: See F.14 F.8 Website of the Issuer: **https://www.bio.xyz/** F.9 Starting Date of Offer to the Public or Admission to Trading [YYYY-MM-DD]: 2025-02-20 F.10 Publication Date [YYYY-MM-DD]: 2025-12-18 F.11 Any Other Services Provided by the Issuer: N/A F.12 Identifier of Operator of the Trading Platform: N/A F.13 Language/s of the White Paper: English F.14 Digital Token Identifier Code used to uniquely identify the Crypto-Asset or each of the several Crypto-Assets to which the White Paper relates, where available: H0TL06GPZ, MFT7HMS7F, 7X0W2C94Z F.15 Functionally Fungible Group Digital Token Identifier, where available: TBR0XDRN8 F.16 Voluntary Data Flag: FALSE F.17 Personal Data Flag: TRUE F.18 LEI

Eligibility: N/A F.19 Home Member State: Malta F.20 Host Member States: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Ireland, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden

G. Information about the Rights and Obligations Attached to the Crypto-Asset

G.1 Purchaser Rights and Obligations: There are no obligations attached to holding the BIO token. Holders have the right to use the token to interact with the BIO Protocol, which includes the right to participate in governance by proposing and voting on proposals, and the right to stake BIO tokens to earn "BioXP" for access to the BioLaunchpad and "Bio Agents" infrastructure. Holders also have the right to freely hold, use, and transfer the token on its supported networks. Ownership of the token does not grant any claim to profits, dividends, or assets of the issuer. G.2 Exercise of Rights and Obligations: The rights attached to the BIO token are exercised by the holder by interacting with the protocol's smart contracts via a compatible crypto-asset wallet. Governance rights are exercised by connecting to the BIO Protocol governance portal to vote on active proposals, and staking rights are exercised by depositing tokens into the protocol's staking contracts. As there are no obligations attached to holding the token, there are no procedures for exercising any obligations. G.3 Conditions for Modifications of Rights and Obligations: The rights attached to the BIO token are inherent to the protocol's software and smart contracts. The conditions for their modification are subject to the protocol's established on-chain governance process, whereby token holders can vote on proposals for changes. As there are no obligations attached to the token, there are no conditions defined for their modification. G.4 Future Public Offers, if applicable: N/A G.5 Issuer Retained Crypto-Assets, if applicable: The "Core Contributors" and "Advisors" allocations, representing 21.20% and 4.20% of the total supply respectively, are

retained by the project team and its advisors. These assets are subject to vesting schedules, as detailed in Section D.9. G.6 Utility Token Classification: TRUE G.7 Key Features of Goods/Services of Utility Tokens: The BIO token provides holders with the right to access the services of the BIO Protocol. These services include the "BioLaunchpad" for project funding, the "AI Agent Infrastructure" for research, and the "Governance" framework for protocol voting. There is no obligation for a holder to use these services, and accessing them does not impose any subsequent obligations. G.8 Utility Tokens Redemption, if applicable: The BIO token is not redeemable for any financial claim against the Issuer, nor does it grant a right to redeem for a specific good or service from the Issuer. The token's utility is derived from its use within the protocol, and there is no obligation on the Issuer or any other party to redeem or exchange the token for other assets. G.9 Non-Trading Request: TRUE G.10 Crypto-Assets Purchase or Sale Modalities: N/A G.11 Crypto-Assets Transfer Restrictions: In line with OKX current Terms of Service. G.12 Supply Adjustment Protocols: TRUE G.13 Supply Adjustments Mechanisms: The supply adjustment mechanism is the BIO Protocol's on-chain governance. BIO token holders have the right to vote on governance proposals which, if passed, could authorize the minting of new tokens beyond the initial 3,320,000,000 supply or introduce other supply-altering mechanisms. There is no automatic or algorithmic supply adjustment; any change must be approved by token holders. Such a decision to increase supply requires deploying a new token contract to replace the current BIO token. G.14 Token Value Protection Schemes: FALSE G.15 Token Value Protection Schemes Description: N/A G.16 Compensation Schemes: FALSE G.17 Compensation Schemes Description, if applicable: N/A G.18 Applicable Law: Malta G.19 Competent Court: Malta

H. Information about the Underlying Technology

H.1 Distributed Ledger Technology, if applicable: See F.14 H.2 Protocols and Technical Standards: The BIO token is implemented using two distinct protocols and technical standards depending on

the network: Ethereum and Base: On these networks, the token adheres to the ERC-20 standard. ERC-20 is the most widely adopted technical standard for fungible tokens on the Ethereum blockchain and EVM-compatible networks like Base. It defines a common set of rules and functions that a token contract must implement, ensuring interoperability with wallets, decentralised exchanges, and other applications within the ecosystem. Solana: On this network, the token is implemented using the Solana Program Library (SPL) Token standard. This is the official and authorised standard for creating and managing fungible and non-fungible tokens on the Solana blockchain. SPL tokens are managed via smart contracts (known as "programs" in Solana) and are designed to leverage Solana's high-throughput, low-latency infrastructure. H.3 Technology Used, if relevant: The BIO token leverages the distinct technology stacks of three different blockchains: Ethereum: A general-purpose Layer-1 blockchain that supports smart contract execution via the Ethereum Virtual Machine (EVM). The BIO token contract is written in Solidity and interacts with the decentralised network of nodes that maintain the ledger. Base: A Layer-2 protocol built using the OP Stack that operates as an optimistic rollup. It processes transactions off-chain in a separate execution environment and then posts compressed transaction data to the Ethereum mainnet. This architecture is designed to provide users with significantly lower transaction fees and faster confirmation times while inheriting the security guarantees of the underlying Ethereum network. Solana: A high-performance Layer-1 blockchain designed for scalability. Its architecture uses Rust-based smart contracts and features a hybrid consensus mechanism that includes Proof-of-History (PoH) to create a verifiable sequence of events, enabling high transaction throughput and sub-second block times. H.4 Consensus Mechanism, if applicable: The security and finality of BIO transactions are ensured by two different consensus models: Ethereum and Base: The Ethereum blockchain uses a Proof-of-Stake (PoS) consensus mechanism. In this system, validators are chosen to propose and attest to new blocks

based on the amount of ETH they have staked as collateral. This model provides high security and energy efficiency. As a Layer-2, Base does not have its own consensus mechanism; it relies on a centralized sequencer to order transactions but ultimately inherits its security and finality from the Ethereum PoS consensus once transaction data is settled on the Layer-1. Solana: The Solana blockchain uses a hybrid consensus mechanism that combines Proof-of-History (PoH) with Proof-of-Stake (PoS). PoH is not a consensus mechanism itself, but a cryptographic technique that creates a verifiable, time-stamped record of all transactions. This ordered sequence is then passed to the PoS mechanism, where a decentralised network of validators vote to confirm blocks, allowing the network to achieve high throughput while maintaining security. H.5 Incentive Mechanisms and Applicable Fees: Incentive mechanisms and transaction fees are specific to each network: Ethereum: Validators are incentivised to secure the network by earning rewards in ETH, which are composed of newly issued tokens and priority fees (tips) from users. Users must pay a transaction fee, known as "gas," in ETH to execute any transaction involving the BIO token. Base: Users pay transaction fees to the network's sequencer for processing and bundling transactions. These fees are significantly lower than on the Ethereum mainnet. The underlying security is provided by Ethereum's validators, who are incentivised through the PoS mechanism. Solana: Validators are incentivised through a PoS system where they earn rewards in the native token (SOL) for validating transactions and producing blocks. Users must pay a small transaction fee in SOL to transfer BIO tokens or interact with related smart contracts. H.6 Use of Distributed Ledger Technology: FALSE H.7 DLT Functionality Description: N/A H.8 Audit of the Technology Used: TRUE H.9 Audit Outcome, if applicable: The BIO Protocol's smart contracts were audited prior to mainnet launch. The audit reports are publicly available here; **https://docs.bio.xyz/bio/developers/audits**.

I. Information on the Principal Adverse Impacts on the Climate and Other Environmental-Related Adverse Impacts of the Consensus Mechanism Used to Issue the Crypto-Asset.

I.1 Name: OKX Europe Limited I.2 Relevant legal entity identifier: 54930069NLWEIGLHXU42 I.3 Name of the crypto-asset: BIO I.4 Consensus Mechanism: BIO is present on the following networks: Base, Ethereum, Solana. Base is a Layer-2 (L2) solution on Ethereum that was introduced by Coinbase and developed using Optimism's OP Stack. L2 transactions do not have their own consensus mechanism and are only validated by the execution clients. The so-called sequencer regularly bundles stacks of L2 transactions and publishes them on the L1 network, i.e. Ethereum. Ethereum's consensus mechanism (Proof-of-stake) thus indirectly secures all L2 transactions as soon as they are written to L1. The crypto-asset's Proof-of-Stake (PoS) consensus mechanism, introduced with The Merge in 2022, replaces mining with validator staking. Validators must stake at least 32 ETH every block a validator is randomly chosen to propose the next block. Once proposed the other validators verify the blocks integrity. The network operates on a slot and epoch system, where a new block is proposed every 12 seconds, and finalization occurs after two epochs (~12.8 minutes) using Casper-FFG. The Beacon Chain coordinates validators, while the fork-choice rule (LMD-GHOST) ensures the chain follows the heaviest accumulated validator votes. Validators earn rewards for proposing and verifying blocks, but face slashing for malicious behavior or inactivity. PoS aims to improve energy efficiency, security, and scalability, with future upgrades like Proto-Danksharding enhancing transaction efficiency. Solana uses a unique combination of Proof of History (PoH) and Proof of Stake (PoS) to achieve high throughput, low latency, and robust security. Here's a detailed explanation of how these mechanisms work: Core Concepts 1. Proof of History (PoH): Time-Stamped Transactions: PoH is a cryptographic technique that timestamps transactions, creating a historical record that proves that an event has occurred at a specific moment in time. Verifiable Delay Function: PoH

uses a Verifiable Delay Function (VDF) to generate a unique hash that includes the transaction and the time it was processed. This sequence of hashes provides a verifiable order of events, enabling the network to efficiently agree on the sequence of transactions. 2. Proof of Stake (PoS): Validator Selection: Validators are chosen to produce new blocks based on the number of SOL tokens they have staked. The more tokens staked, the higher the chance of being selected to validate transactions and produce new blocks. Delegation: Token holders can delegate their SOL tokens to validators, earning rewards proportional to their stake while enhancing the network's security. Consensus Process 1. Transaction Validation: Transactions are broadcast to the network and collected by validators. Each transaction is validated to ensure it meets the network's criteria, such as having correct signatures and sufficient funds. 2. PoH Sequence Generation: A validator generates a sequence of hashes using PoH, each containing a timestamp and the previous hash. This process creates a historical record of transactions, establishing a cryptographic clock for the network. 3. Block Production: The network uses PoS to select a leader validator based on their stake. The leader is responsible for bundling the validated transactions into a block. The leader validator uses the PoH sequence to order transactions within the block, ensuring that all transactions are processed in the correct order. 4. Consensus and Finalization: Other validators verify the block produced by the leader validator. They check the correctness of the PoH sequence and validate the transactions within the block. Once the block is verified, it is added to the blockchain. Validators sign off on the block, and it is considered finalized. Security and Economic Incentives 1. Incentives for Validators: Block Rewards: Validators earn rewards for producing and validating blocks. These rewards are distributed in SOL tokens and are proportional to the validator's stake and performance. Transaction Fees: Validators also earn transaction fees from the transactions included in the blocks they produce. These fees provide an additional incentive for validators to process transactions efficiently. 2. Security: Staking:

Validators must stake SOL tokens to participate in the consensus process. This staking acts as collateral, incentivizing validators to act honestly. If a validator behaves maliciously or fails to perform, they risk losing their staked tokens. Delegated Staking: Token holders can delegate their SOL tokens to validators, enhancing network security and decentralization. Delegators share in the rewards and are incentivized to choose reliable validators. 3. Economic Penalties: Slashing: Validators can be penalized for malicious behavior, such as double-signing or producing invalid blocks. This penalty, known as slashing, results in the loss of a portion of the staked tokens, discouraging dishonest actions. I.5 Incentive Mechanisms and Applicable Fees: BIO is present on the following networks: Base, Ethereum, Solana. Base is a Layer-2 (L2) solution on Ethereum that uses optimistic rollups provided by the OP Stack on which it was developed. Transaction on base are bundled by a, so called, sequencer and the result is regularly submitted as an Layer-1 (L1) transactions. This way many L2 transactions get combined into a single L1 transaction. This lowers the average transaction cost per transaction, because many L2 transactions together fund the transaction cost for the single L1 transaction. This creates incentives to use base rather than the L1, i.e. Ethereum, itself. To get crypto-assets in and out of base, a special smart contract on Ethereum is used. Since there is no consensus mechanism on L2 an additional mechanism ensures that only existing funds can be withdrawn from L2. When a user wants to withdraw funds, that user needs to submit a withdrawal request on L1. If this request remains unchallenged for a period of time the funds can be withdrawn. During this time period any other user can submit a fault proof, which will start a dispute resolution process. This process is designed with economic incentives for correct behaviour. The crypto-asset's PoS system secures transactions through validator incentives and economic penalties. Validators stake at least 32 ETH and earn rewards for proposing blocks, attesting to valid ones, and participating in sync committees. Rewards are paid in newly issued ETH and transaction fees. Under EIP-1559, transaction fees

consist of a base fee, which is burned to reduce supply, and an optional priority fee (tip) paid to validators. Validators face slashing if they act maliciously and incur penalties for inactivity. This system aims to increase security by aligning incentives while making the crypto-asset's fee structure more predictable and deflationary during high network activity. Solana uses a combination of Proof of History (PoH) and Proof of Stake (PoS) to secure its network and validate transactions. Here's a detailed explanation of the incentive mechanisms and applicable fees: Incentive Mechanisms 4. Validators: Staking Rewards: Validators are chosen based on the number of SOL tokens they have staked. They earn rewards for producing and validating blocks, which are distributed in SOL. The more tokens staked, the higher the chances of being selected to validate transactions and produce new blocks. Transaction Fees: Validators earn a portion of the transaction fees paid by users for the transactions they include in the blocks. This provides an additional financial incentive for validators to process transactions efficiently and maintain the network's integrity. 5. Delegators: Delegated Staking: Token holders who do not wish to run a validator node can delegate their SOL tokens to a validator. In return, delegators share in the rewards earned by the validators. This encourages widespread participation in securing the network and ensures decentralization. 6. Economic Security: Slashing: Validators can be penalized for malicious behavior, such as producing invalid blocks or being frequently offline. This penalty, known as slashing, involves the loss of a portion of their staked tokens. Slashing deters dishonest actions and ensures that validators act in the best interest of the network. Opportunity Cost: By staking SOL tokens, validators and delegators lock up their tokens, which could otherwise be used or sold. This opportunity cost incentivizes participants to act honestly to earn rewards and avoid penalties. Fees Applicable on the Solana Blockchain 7. Transaction Fees: Low and Predictable Fees: Solana is designed to handle a high throughput of transactions, which helps keep fees low and predictable. The average transaction fee on Solana is significantly lower

compared to other blockchains like Ethereum. Fee Structure: Fees are paid in SOL and are used to compensate validators for the resources they expend to process transactions. This includes computational power and network bandwidth. 8. Rent Fees: State Storage: Solana charges rent fees for storing data on the blockchain. These fees are designed to discourage inefficient use of state storage and encourage developers to clean up unused state. Rent fees help maintain the efficiency and performance of the network. 9. Smart Contract Fees: Execution Costs: Similar to transaction fees, fees for deploying and interacting with smart contracts on Solana are based on the computational resources required. This ensures that users are charged proportionally for the resources they consume. I.6 Beginning of the period to which the disclosure relates: 2024-11-03 I.7 End of the period to which the disclosure relates: 2025-11-03 I.8 Energy consumption: 1629.43130 (kWh/a) I.9 Energy consumption sources and methodologies: The energy consumption of this asset is aggregated across multiple components: To determine the energy consumption of a token, the energy consumption of the network(s) base, ethereum, solana is calculated first. For the energy consumption of the token, a fraction of the energy consumption of the network is attributed to the token, which is determined based on the activity of the crypto-asset within the network. When calculating the energy consumption, the Functionally Fungible Group Digital Token Identifier (FFG DTI) is used - if available - to determine all implementations of the asset in scope. The mappings are updated regularly, based on data of the Digital Token Identifier Foundation. The information regarding the hardware used and the number of participants in the network is based on assumptions that are verified with best effort using empirical data. In general, participants are assumed to be largely economically rational. As a precautionary principle, we make assumptions on the conservative side when in doubt, i.e. making higher estimates for the adverse impacts.

VII. GLOSSARY

Consensus Mechanism: Shall mean the rules and procedures by which an agreement is reached, among the DLT network nodes, that a transaction is validated.

Crypto-Asset: Shall mean a digital representation of a value or of a right that is able to be transferred and stored electronically using distributed ledger technology or similar technology.

Distributed Ledger Technology or DLT: shall mean the technology that enables the operation and use of distributed ledgers.

Home Member State: Shall mean either (a) where the offeror or person seeking admission to trading of crypto-assets other than asset-referenced tokens or e-money tokens has its registered office in the Union, the Member State where that offeror or person has its registered office; or (b) where the offeror or person seeking admission to trading of crypto-assets other than asset-referenced tokens or e-money tokens has no registered office in the Union but does have one or more branches in the Union, the Member State chosen by that offeror or person from among the Member States where it has branches; or (c) where the offeror or person seeking admission to trading of crypto-assets other than asset-referenced tokens or e-money tokens is established in a third country and has no branch in the Union, either the Member State where the crypto-assets are intended to be offered to the public for the first time or, at the choice of the offeror or person seeking admission to trading, the Member State where the first application for admission to trading of those crypto-assets is made; or (d) in the case of an Issuer of asset-referenced tokens, the Member State where the Issuer of asset-referenced tokens has its registered office; or (e) in the case of an Issuer of e-money tokens, the Member State where the Issuer of e-money tokens is authorised as a credit institution under Directive 2013/36/EU or as an electronic money

institution under Directive 2009/110/EC; or (f) in the case of crypto-asset service providers, the Member State where the crypto-asset service provider has its registered office.

Host Member State: Shall mean the Member State where an Offeror or Person Seeking Admission to Trading has made an offer to the Public of Crypto-Assets or is seeking admission to trading, or where a Crypto-Asset Service Provider provides crypto-asset services, where different from the Home Member State.

Issuer: Shall mean a natural or legal person, or other undertaking, who issues crypto-assets.

Management Body: Shall mean the body or bodies of an Issuer, Offeror, Person Seeking Admission to Trading, or of a Crypto-Asset Service Provider, which are appointed in accordance with National Law, which are empowered to set the entity's strategy, objectives and overall direction, and which oversee and monitor management decision-making in the entity and include the persons who effectively direct the business of the entity.

Offer to the Public: Shall mean a communication to persons in any form, and by any means, presenting sufficient information on the terms of the offer and the crypto-assets to be offered so as to enable prospective holders to decide whether to purchase those crypto-assets.

Offeror: Shall mean a natural or legal person, or other undertaking, or the Issuer, who offers crypto-assets to the public.

Operator: Shall mean the entity that runs a trading platform for crypto-assets.

Qualified Investors: Shall mean persons or entities that are listed in Section I, points (1) to (4), of Annex II to Directive 2014/65/EU.

Retail Investor/Holder: Shall means any natural person who is acting for purposes which are outside that person's trade, business, craft or profession.

Utility Token: Shall mean a type of crypto-asset that is only intended to provide access to a good or a service supplied by its Issuer.

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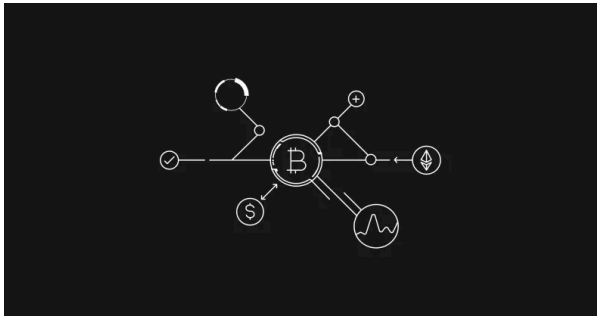

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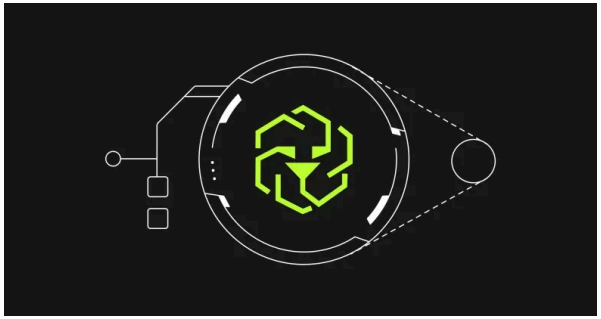

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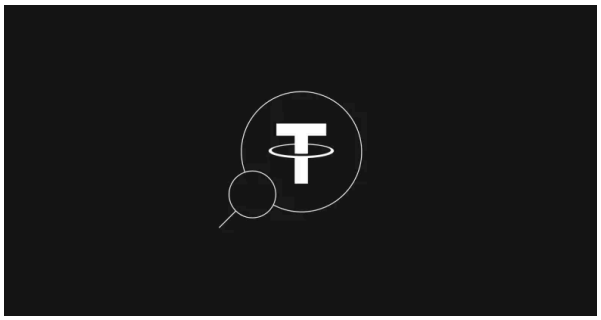

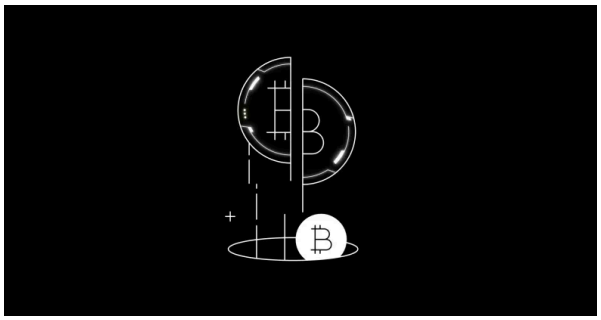

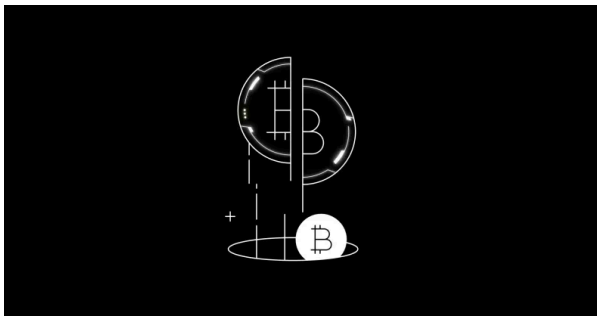

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