MiCA White Paper

Optimism(OP)

Version 1.1
April 2025

White Paper in accordance with Markets in Crypto Assets Regulation (MiCAR)
for the European Economic Area (EEA).

Purpose: seeking admission to trading in EEA.

Prepared and Filed by LCX.com

NOTE: THIS CRYPTO-ASSET WHITE PAPER HAS NOT BEEN APPROVED BY ANY COMPETENT AUTHORITY IN ANY MEMBER STATE OF THE EUROPEAN ECONOMIC AREA. THE PERSON SEEKING ADMISSION TO TRADING IS SOLELY RESPONSIBLE FOR THE CONTENT OF THIS CRYPTO-ASSET WHITE PAPER ACCORDING TO THE EUROPEAN ECONOMIC AREA'S MARKETS IN CRYPTO-ASSET REGULATION (MICA).

This white paper has been prepared in accordance with the requirements set forth in Commission Implementing Regulation (EU) 2024/2984, ensuring that all relevant reporting formats, content specifications, and machine-readable structures outlined in Annex I of this regulation have been fully mapped and implemented, particularly reflected through the Recitals, to enable proper notification under the Markets in Crypto-Assets Regulation (MiCAR).

00 TABLE OF CONTENT

01 DATE OF NOTIFICATION

2025-04-07

COMPLIANCE STATEMENTS

02 This crypto-asset white paper has not been approved by any competent authority in any Member State of the European Economic Area. The offeror of the crypto-asset is solely responsible for the content of this crypto-asset white paper.

Where relevant in accordance with Article 6(3), second subparagraph of Regulation (EU) 2023/1114, reference shall be made to ‘person seeking admission to trading’ or to ‘operator of the trading platform’ instead of ‘offeror’.

03 This crypto-asset white paper complies with Title II of Regulation (EU) 2023/1114 and, 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.

04 The crypto-asset referred to in this white paper may lose its value in part or in full, may not always be transferable and may not be liquid.

05 Not applicable

06 The crypto-asset referred to in this white paper is not covered by the investor compensation schemes under Directive 97/9/EC of the European Parliament and of the Council.The crypto-asset referred to in this white paper is not covered by the deposit guarantee schemes under Directive 2014/49/EU of the European Parliament and of the Council.

SUMMARY

07 Warning

This summary should be read as an introduction to the crypto-asset white paper. 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. The offer to the public of this crypto-asset does not constitute an offer or solicitation to purchase financial instruments and any such offer or solicitation can be made only by means of a prospectus or other offer documents pursuant to the applicable national law.

This crypto-asset white paper does not constitute a prospectus as referred to in Regulation (EU) 2017/1129 of the European Parliament and of the Council (36) or any other offer document pursuant to Union or national law.

08 Characteristics of the crypto-asset

The OP token is the native governance token of the Optimism Layer 2 blockchain protocol, built on top of Ethereum. It is classified as an "Other Crypto-Asset" under the Markets in Crypto-Assets Regulation (MiCA). OP tokens do not represent any underlying physical asset, right to redemption, or monetary claim. Their primary utility lies in protocol governance, ecosystem incentives, and future participation in the Optimism Collective, a two-tier governance framework consisting of the Token House and the Citizens' House.

OP tokens are fungible, ERC-20 compliant, and transferable on Ethereum-compatible platforms. They do not offer legal ownership or voting rights in the issuer's corporate structure and are not backed by any reserve or collateral. Instead, they enable holders to propose and vote on governance matters, including treasury disbursements, protocol upgrades, and governance rules. Their value is determined by market supply and demand, based on perceived utility and protocol adoption.

09 Not applicable

10 Key information about the offer to the public or admission to trading

The OP token was not issued through a traditional public offering or initial coin offering (ICO). Instead, distribution has been conducted through a phased approach including community airdrops, governance-based allocations, and ecosystem grants. There is no formal subscription period or fixed issuance price. OP tokens have been allocated based on contributor activity, governance participation, and public goods funding mechanisms.

The token is freely tradable on several centralized and decentralized exchanges, having been admitted to secondary markets following initial allocations. No fees are charged by the issuer for receiving OP tokens during airdrop phases. The listing and trading of OP tokens on crypto-asset service providers (CASPs) are subject to the respective platforms' regulatory and operational frameworks. No CASP has been formally appointed to oversee the placement of the OP token.

Total offer amount	*Not applicable*
Total number of tokens to be offered to the public	*No fixed amount; OP tokens are distributed periodically via governance decisions and incentive programs.*
Subscription period	*Not applicable. OP tokens are not offered via a traditional subscription or ICO process.*
Minimum and maximum subscription amount	*Not applicable*
Issue price	*Not applicable*

Subscription fees (if any)	*Not applicable*
Target holders of tokens	*Ethereum users, developers, dApp communities, and active participants in the Optimism ecosystem and governance.*
Description of offer phases	*Distribution occurs in multiple phases, including community airdrops, ecosystem grants, and governance funding.*
CASP responsible for placing the token (if any)	*None officially designated; OP is available via regulated exchanges and DeFi platforms.*
Form of placement	*Community airdrops, retroactive public goods funding, and governance allocations.*
Admission to trading	OP is listed on multiple centralized and decentralized exchanges; subject to each platform's listing criteria.

A. PART A - INFORMATION ABOUT THE OFFEROR OR THE PERSON SEEKING ADMISSION TO TRADING

A.1 Name

LCX

A.2 Legal Form

AG

A.3 Registered Address

Herrengasse 6, 9490 Vaduz, Liechtenstein

A.4 Head Office

Herrengasse 6, 9490 Vaduz, Liechtenstein

A.5 Registration Date

24.04.2018

A.6 Legal Entity Identifier

529900SN07Z6RTX8R418

A.7 Another Identifier Required Pursuant to Applicable National Law

FL-0002.580.678-2

A.8 Contact Telephone Number

+423 235 40 15

A.9 E-mail Address

legal@lcx.com

A.10 Response Time (Days)

020

A.11 Parent Company

Not applicable

A.12 Members of the Management Body

Full Name	Business Address	Function
Monty C. M. Metzger	Herrengasse 6, 9490 Vaduz, Liechtenstein	President of the Board
Katarina Metzger	Herrengasse 6, 9490 Vaduz, Liechtenstein	Board Member
Anurag Verma	Herrengasse 6, 9490 Vaduz, Liechtenstein	Director of Technology

A.13 Business Activity

LCX provides various crypto-asset services under Liechtenstein's Token and Trusted Technology Service Provider Act ("Token- und Vertrauenswürdige Technologie-Dienstleister-Gesetz" in short "TVTG") also known as the Blockchain Act. These include custody and administration of crypto-assets, offering secure storage for clients' assets and private keys. LCX operates a trading platform, facilitating the matching of buy and sell orders for crypto-assets. It enables both crypto-to-fiat and crypto-to-crypto exchanges, ensuring compliance with AML and KYC regulations. LCX also supports token placements, marketing crypto-assets on behalf of offerors.

Under MiCA, LCX is classified as a Crypto-Asset Service Provider (CASP). LCX is not yet formally supervised under MiCA until the license is granted by the competent authority.

Under the TVTG framework, LCX provides:

- TT Depositary – Custody and safekeeping of crypto-assets.
- TT Trading Platform Operator – Operation of a regulated crypto-asset exchange.
- TT Exchange Service Provider – Crypto-to-fiat and crypto-to-crypto exchange.
- Token Issuer – Marketing and distribution of tokens.
- TT Transfer Service Provider – Crypto-asset transfers between ledger addresses.
- Token Generator & Tokenization Service Provider – Creation and issuance of tokens.
- Physical Validator – Enforcement of token-based rights on TT systems.
- TT Verification & Identity Service Provider – Legal capacity verification and identity registration.
- TT Price Service Provider – Providing aggregated crypto-asset price information.

A.14 Parent Company Business Activity

Not applicable

A.15 Newly Established

false

A.16 Financial Condition for the past three Years

LCX AG has a strong capital base, with CHF 1 million (approx. 1,126,000 USD) in share capital (Stammkapital) and a solid equity position (Eigenkapital) in 2023. The company has experienced fluctuations in financial performance over the past three years, reflecting the dynamic nature of the crypto market. While LCX AG recorded a loss in 2022, primarily due to a market downturn and a security breach, it successfully covered the impact through reserves. The company has remained financially stable, achieving revenues and profits in 2021, 2023 and 2024 while maintaining break-even operations.

In 2023 and 2024, LCX AG strengthened its operational efficiency, expanded its business activities, and upheld a stable financial position. Looking ahead to 2025, the company anticipates positive financial development, supported by market uptrends, an inflow of customer funds, and strong business performance. Increased adoption of digital assets and service expansion are expected to drive higher revenues and profitability, further reinforcing LCX AG's financial position.

A.17 Financial Condition Since Registration

LCX AG has been financially stable since its registration, supported by CHF 1 million in share capital (Stammkapital) and continuous business growth. Since its inception, the company has expanded its operations, secured multiple regulatory registrations, and established itself as a key player in the crypto and blockchain industry.

While market conditions have fluctuated, LCX AG has maintained strong revenues and break-even operations. The company has consistently reinvested in its platform, technology, and regulatory compliance, ensuring long-term sustainability. The LCX Token has been a fundamental part of the ecosystem, with a market capitalization of approximately $200 million USD and an all-time high exceeding $500 million USD in 2022. Looking ahead, LCX AG anticipates continued financial growth, driven by market uptrends, increased adoption of digital assets, and expanding business activities.

B. PART B - INFORMATION ABOUT THE ISSUER, IF DIFFERENT FROM THE OFFEROR OR PERSON SEEKING ADMISSION TO TRADING[1]

B.1 Issuer different from offeror or person seeking admission to trading

True

B.2 Name

Optimism Foundation

B.3 Legal Form

Foundation Company Limited by Guarantee Without Share Capital, incorporated under the Foundation Companies Act, 2017 of the Cayman Islands

B.4 Registered Address

28 Liberty Street, New York, NY 10005, United States

B.5 Head Office

28 Liberty Street, New York, NY 10005, United States

B.6 Registration Date

September 2022

B.7 Legal Entity Identifier

Not applicable

B.8 Another Identifier Required Pursuant to Applicable National Law

Not applicable

B.9 Parent Company

Not applicable

B.10 Members of the Management Body

The Foundation is governed by a Board of Directors and a Supervisor:

Board of Directors:

- Abbey Titcomb
- Ben Jones
- Brian Avello
- Eva Beylin
- Jing

B.11 Business Activity

The Optimism Foundation supports the Optimism Collective by:

- Facilitating the development and adoption of Optimism's Layer 2 scaling solutions.
- Managing the distribution and governance of the OP token.
- Overseeing grant programs to fund projects within the Optimism ecosystem.
- Ensuring the security and integrity of the network through various initiatives.

B.12 Parent Company Business Activity

Not applicable

[1] **[19-04-2025]** All information available in the public domain regarding the issuer has been added in Part- B

C. PART C - INFORMATION ABOUT THE OPERATOR OF THE TRADING PLATFORM IN CASES WHERE IT DRAWS UP THE CRYPTO-ASSET WHITE PAPER AND INFORMATION ABOUT OTHER PERSONS DRAWING THE CRYPTO-ASSET WHITE PAPER PURSUANT TO ARTICLE 6(1), SECOND SUBPARAGRAPH, OF REGULATION (EU) 2023/1114

C.1 Name

LCX AG

C.2 Legal Form

AG

C.3 Registered Address

Herrengasse 6, 9490 Vaduz, Liechtenstein

C.4 Head Office

Herrengasse 6, 9490 Vaduz, Liechtenstein

C.5 Registration Date

24.04.2018

C.6 Legal Entity Identifier

529900SN07Z6RTX8R418

C.7 Another Identifier Required Pursuant to Applicable National Law

FL-0002.580.678-2

C.8 Parent Company

Not Applicable

C.9 Reason for Crypto-Asset White Paper Preparation

LCX is voluntarily preparing this MiCA-compliant whitepaper for Optimism (OP) to enhance transparency, regulatory clarity, and investor confidence. While Optimism does not require a MiCA whitepaper due to its classification as “Other Crypto-Assets,” LCX is providing this document to support its role as a Crypto-Asset Service Provider (CASP) and ensure compliance with MiCA regulations in facilitating OP trading on its platform.

C.10 Members of the Management Body

Full Name	Business Address	Function
Monty C. M. Metzger	Herrengasse 6, 9490 Vaduz, Liechtenstein	President of the Board
Katarina Metzger	Herrengasse 6, 9490 Vaduz, Liechtenstein	Board Member
Anurag Verma	Herrengasse 6, 9490 Vaduz, Liechtenstein	Director of Technology

C.11 Operator Business Activity

LCX provides various crypto-asset services under Liechtenstein’s Token and Trusted Technology Service Provider Act (“Token- und Vertrauenswürdige Technologie-Dienstleister-Gesetz” in short “TVTG”) also known as the Blockchain Act. These include custody and administration of crypto-assets, offering secure storage for clients' assets and private keys. LCX operates a trading platform, facilitating the matching of buy and sell orders for crypto-assets. It enables both crypto-to-fiat and

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- TT Depositary – Custody and safekeeping of crypto-assets.
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- Physical Validator – Enforcement of token-based rights on TT systems.
- TT Verification & Identity Service Provider – Legal capacity verification and identity registration.
- TT Price Service Provider – Providing aggregated crypto-asset price information.

C.12 Parent Company Business Activity

Not Applicable

C.13 Other persons drawing up the white paper under Article 6 (1) second subparagraph MiCA

Not Applicable

C.14 Reason for drawing up the white paper under Article 6 (1) second subparagraph MiCA

Not Applicable

D. PART D - INFORMATION ABOUT THE CRYPTO-ASSET PROJECT

D.1 Crypto-Asset Project Name

Optimism

D.2 Crypto-Assets Name

OP

D.3 Abbreviation

OP

D.4 Crypto-Asset Project Description

Optimism is a Layer 2 scaling solution for Ethereum that uses Optimistic Rollups to increase transaction throughput, reduce fees, and maintain Ethereum's security. It enables faster, cheaper transactions by executing them off-chain and posting compressed data to Ethereum for final settlement.The OP token is the native governance token of the Optimism ecosystem. It grants holders the ability to participate in protocol governance through the Token House, which, alongside the Citizens' House, forms the Optimism Collective—a unique governance model focused on ecosystem growth and funding public goods.

OP tokens are used to vote on treasury allocations, protocol upgrades, and strategic initiatives. The project is led by the Optimism Foundation and a global community of contributors, aiming to create a decentralized, scalable, and sustainable Web3 infrastructure.

D.5 Details of all persons involved in the implementation of the crypto-asset project

These entities collaborate to maintain and improve the Optimism ecosystem, with governance mechanisms allowing OP holders to participate in decision-making for future upgrades and network modifications.

Full Name	Business Address	Function
Jinglan Wang	*Not applicable*	*Founder & Early Developer*
Ben Jones	*Not applicable*	*Co-founder & Early Developer*
Karl Floersch	*Not applicable*	*Co-founder & Early Developer*
Optimism Foundation	*28 Liberty Street, New York, NY 10005, United States*	*Co-founder & Early Developer*
Optimism Labs	*28 Liberty Street, New York, NY 10005, United States*	*Protocol Development, Grant Programs, Ecosystem Partnerships, and Governance Coordination.*

D.6 Utility Token Classification

false

D.7 Key Features of Goods/Services for Utility Token Projects

Not applicable

D.8 Plans for the Token

Not applicable

D.9 Resource Allocation

Not applicable

D.10 Planned Use of Collected Funds or Crypto-Assets

Not applicable

E. PART E - INFORMATION ABOUT THE OFFER TO THE PUBLIC OF CRYPTO-ASSETS OR THEIR ADMISSION TO TRADING

E.1 Public Offering or Admission to Trading

ATTR

E.2 Reasons for Public Offer or Admission to Trading

LCX is voluntarily filing a MiCA-compliant whitepaper for Optimism (OP) to enhance transparency, regulatory clarity, and investor confidence. While OP is classified as “Other Crypto-Assets” under MiCA and does not require a whitepaper, this initiative supports compliance readiness and aligns with MiCA’s high disclosure standards. By doing so, LCX strengthens its position as a regulated exchange, ensuring a trustworthy and transparent trading environment for OP within the EU’s evolving regulatory framework. Additionally, this filing facilitates market access and institutional adoption by removing uncertainty for institutional investors and regulated entities seeking to engage with Optimism in a compliant manner. It further supports the broader market adoption and integration of Optimism into the regulated financial ecosystem, reinforcing LCX’s role in shaping compliant and transparent crypto markets.

E.3 Fundraising Target

Not applicable

E.4 Minimum Subscription Goals

Not applicable

E.5 Maximum Subscription Goal

Not applicable

E.6 Oversubscription Acceptance

Not applicable

E.7 Oversubscription Allocation

Not applicable

E.8 Issue Price

Not applicable

E.9 Official Currency or Any Other Crypto-Assets Determining the Issue Price

Not applicable

E.10 Subscription Fee

Not applicable

E.11 Offer Price Determination Method

Not applicable

E.12 Total Number of Offered/Traded Crypto-Assets

The total supply of OP tokens is fixed at 4,294,967,296 OP . Distribution is being carried out in phases through airdrops, ecosystem incentives, governance allocations, and contributor rewards. A portion of the total supply is currently in circulation, with the remainder subject to a structured release schedule. OP tokens are actively traded on various centralized and decentralized exchanges. Circulating supply may vary based on vesting and governance decisions.

E.13 Targeted Holders

ALL

E.14 Holder Restrictions

Not applicable

E.15 Reimbursement Notice

Not applicable

E.16 Refund Mechanism

Not applicable

E.17 Refund Timeline

Not applicable

E.18 Offer Phases

Not applicable

E.19 Early Purchase Discount

Not applicable

E.20 Time-Limited Offer

Not applicable

E.21 Subscription Period Beginning

Not applicable

E.22 Subscription Period End

Not applicable

E.23 Safeguarding Arrangements for Offered Funds/Crypto-Assets

Not applicable

E.24 Payment Methods for Crypto-Asset Purchase

Not applicable

E.25 Value Transfer Methods for Reimbursement

Not applicable

E.26 Right of Withdrawal

Not applicable

E.27 Transfer of Purchased Crypto-Assets

Not applicable

E.28 Transfer Time Schedule

Not applicable

E.29 Purchaser's Technical Requirements

Not applicable

E.30 Crypto-asset service provider (CASP) name

Not applicable

E.31 CASP identifier

Not applicable

E.32 Placement Form

NTAV

E.33 Trading Platforms name

LCX AG

E.34 Trading Platforms Market Identifier Code (MIC)

LCXE

E.35 Trading Platforms Access

Optimism (OP) is widely traded on multiple regulated and unregulated trading platforms globally. As a decentralized crypto-asset with no central issuer, OP is not restricted to a single exchange and can be accessed by retail and institutional investors worldwide.

LCX Exchange also provides access to Optimism (OP) trading with several pairs. Investors can access Optimism ($OP) through LCX.com, the official LCX exchange, as well as other supported cryptocurrency trading platforms. To trade $OP, users must register, complete KYC (Know Your Customer) verification, and comply with platform-specific requirements.

E.36 Involved Costs

Not applicable

E.37 Offer Expenses

Not applicable

E.38 Conflicts of Interest

Not applicable

E.39 Applicable Law

The OP Token complies with MiCA regulations in the EU and relevant AML, CTF, and investor protection laws. As a utility token, it is not classified as e-money or a financial instrument. Regulatory and tax obligations vary by jurisdiction, and users should review local laws before trading.

E.40 Competent Court

In case of disputes related to services provided by LCX, the competent court is: The Courts of Liechtenstein, with jurisdiction in accordance with Liechtenstein law and applicable EU regulations.

F. PART F - INFORMATION ABOUT THE CRYPTO-ASSETS

F.1 Crypto-Asset Type

Other Crypto-Asset

F.2 Crypto-Asset Functionality

The OP token currently serves three core functions:

Governance – enabling holders to vote in the Token House on key protocol and funding decisions.

Ecosystem Incentives – supporting community and developer growth through rewards, grants, and retroactive public goods funding.

Coordination Mechanism – helping align stakeholders around shared goals through the Optimism Collective governance framework.

OP does not function as a medium of exchange, store of value, or unit of account within the protocol..

F.3 Planned Application of Functionalities

The primary planned application of OP is on-chain governance within the Optimism Collective. Token holders can vote on proposals related to protocol upgrades, treasury disbursements, and ecosystem development. Additionally, OP may be used for future functionality such as staking or incentivizing ecosystem contributions, subject to governance approval. These functionalities are designed to support the protocol's decentralization and growth over time.

F.4 Type of white paper

OTHR

F.5 The type of submission

NEWT

F.6 Crypto-Asset Characteristics

OP is a fungible utility and governance token native to the Optimism Layer 2 network. It is issued on Ethereum and complies with the ERC-20 standard. OP tokens do not represent ownership, claims, or rights to profit, and they are not backed by any reserve asset. The token is freely transferable, non-redeemable, and its value is determined by market supply and demand. OP holders may participate in protocol governance but do not hold any legal or financial entitlements from the issuer.

F.7 Commercial name or trading name

OP

F.8 Website of the issuer

Not applicable

F.9 Starting date of offer to the public or admission to trading

2025-05-07

F.10 Publication date

2025-05-07

F.11 Any other services provided by the issuer

Not applicable

F.12 Language or languages of the white paper

English

F.13 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

9NRMM2RC4

F.14 Functionally Fungible Group Digital Token Identifier, where available

Not applicable

F.15 Voluntary data flag

true

F.16 Personal data flag

false

F.17 LEI eligibility

false

F.18 Home Member State

Liechtenstein

F.19 Host Member States

Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden.

G. PART G - INFORMATION ON THE RIGHTS AND OBLIGATIONS ATTACHED TO THE CRYPTO-ASSETS

G.1 Purchaser Rights and Obligations

Purchasers of OP tokens acquire the right to participate in governance decisions within the Optimism Collective, primarily through voting in the Token House. These rights are non-financial and do not confer ownership, dividends, or claims against the issuer. Token holders must comply with applicable laws and the governance framework established by the Optimism protocol. Participation is voluntary and subject to protocol rules.

G.2 Exercise of Rights and Obligation

OP token holders may exercise their governance rights through on-chain voting mechanisms facilitated by smart contracts. Proposals may include protocol upgrades, treasury allocations, or rule changes. Participation requires compatible wallets and adherence to proposal submission and voting deadlines. Exercising these rights is optional but must follow the community's established procedures and technical interfaces.

G.3 Conditions for Modifications of Rights and Obligations

Modifications to the rights or obligations of OP token holders may occur through governance proposals approved by a community vote. Such changes must follow the defined governance process, including proposal submission, quorum thresholds, and voting periods. Changes become effective upon successful on-chain execution and are publicly documented via the protocol’s governance platforms and smart contracts.

G.4 Future Public Offers

Not applicable

G.5 Issuer Retained Crypto-Assets

Not applicable

G.6 Utility Token Classification

No

G.7 Key Features of Goods/Services of Utility Tokens

Not applicable

G.8 Utility Tokens Redemption

Not applicable

G.9 Non-Trading Request

True

G.10 Crypto-Assets Purchase or Sale Modalities

Not applicable

G.11 Crypto-Assets Transfer Restrictions

Not applicable

G.12 Supply Adjustment Protocols[2]

The OP token operates under a fixed maximum supply model, capped at 4,294,967,296 OP tokens. There is no native algorithmic supply adjustment (such as rebasing or elastic supply). Token supply management and any future changes to distribution are governed by the Optimism Collective, through decentralized governance involving the Token House and Citizens' House. The protocol's supply logic is fixed in its smart contracts, and any amendments must be approved via formal governance proposals.

[2] **[19-04-2025]** An explanation regarding the Supply Adjustment Protocol is provided in Sub-Part G.12.

G.13 Supply Adjustment Mechanisms[3]

The OP token's supply is governed by a long-term issuance schedule that includes allocations for ecosystem funding, governance participation, retroactive public goods funding, and partner incentives. Notably, 20% of the initial token supply was allocated to Retroactive Public Goods Funding (RPGF), and 17% to ecosystem incentives. There is no automatic inflation or deflation built into the tokenomics; However, new tokens may be distributed from the treasury based on governance decisions. Any minting or token burns must be explicitly approved through the governance process.

G.14 Token Value Protection Schemes

False

G.15 Token Value Protection Schemes Description

Not Applicable

G.16 Compensation Schemes

False

G.17 Compensation Schemes Description

Not Applicable

G.18 Applicable Law

OP is not classified as a financial instrument, electronic money, or security under EU law and is treated as an "Other Crypto-Asset" under MiCA. The applicable law for regulatory purposes is the law of the jurisdiction where the Crypto-Asset Service Provider (CASP) or issuer operates—in this case, potentially Liechtenstein, where LCX voluntarily files this whitepaper. However, due to the decentralized and permissionless nature of the Optimism network, user interactions are governed primarily by the rules encoded in smart contracts, subject to overarching compliance with applicable laws and regulations in each user's jurisdiction of residence or operation.

The OP token is governed by smart contract rules encoded in Ethereum-compatible contracts and regulated under MiCA as an 'Other Crypto-Asset.' Services by LCX AG are subject to Liechtenstein law. Token holders using CASPs must also comply with local laws in their jurisdiction.

G.19 Competent Court

As OP operates within a decentralized framework and this whitepaper is published voluntarily under MiCA by LCX, any legal disputes arising from services provided by LCX shall fall under the jurisdiction of the competent courts in Liechtenstein, unless otherwise specified by contractual terms with users. However, for on-chain activities carried out independently by users within the decentralized Optimism network, no centralized legal recourse may apply. Users interacting with CASPs or other intermediaries should refer to the specific terms and legal agreements of those service providers, which may define separate jurisdictions for dispute resolution based on their location and licensing.

[3] **[19-04-2025]** An explanation regarding the Supply Adjustment Mechanism is provided in Sub-Part G.13.

H. PART H – INFORMATION ON THE UNDERLYING TECHNOLOGY

H.1 Distributed ledger technology

The OP token and Optimism protocol are built atop Ethereum's distributed ledger, benefiting from Ethereum's decentralized validator network and Proof-of-Stake consensus mechanism. Optimism itself does not maintain an independent ledger or consensus network; instead, it acts as a Layer 2 execution environment that periodically submits transaction data and state roots to Ethereum.

All transaction data on Optimism is eventually posted on Ethereum in the form of calldata, ensuring data availability and verifiability. Optimism leverages Ethereum as the canonical source of truth, inheriting its security guarantees while offloading computational execution to a more scalable environment.

The use of Ethereum's distributed ledger ensures tamper-resistance, transparency, and finality for OP token-related transactions. Fraud-proof mechanisms further secure the protocol by enabling Layer 1-based dispute resolution, reinforcing the integrity of the Layer 2 environment.

H.2 Protocols and Technical Standards

Optimism adheres to widely adopted Ethereum Improvement Proposals (EIPs) and open technical standards to ensure interoperability, security, and future-proofing. Key standards and protocols include:

-EVM Compatibility: Optimism's EVM-equivalent architecture supports unmodified Solidity smart contracts.

-ERC-20 and ERC-721 standards: Used for tokens and NFTs on the Optimism Layer 2 chain.

-Calldata compression: Optimism uses compressed calldata to post transaction batches to Ethereum, reducing Layer 1 gas costs.

-Fraud-proof protocol: Although under active development, the fraud-proof system will eventually become permissionless, enhancing security and decentralization.

-Cross-domain messaging: Enables secure and verifiable communication between Layer 1 and Layer 2 smart contracts.

These standards support efficient protocol upgrades, secure cross-chain interactions, and compatibility with the broader Ethereum ecosystem.

H.3 Technology Used

Optimism is built using Optimistic Rollup technology, enabling high-throughput and low-cost transactions without compromising Ethereum's security. It leverages off-chain computation and on-chain data availability by compressing and posting transaction data to Ethereum Layer 1.

The protocol is developed in Solidity, with extensive use of smart contracts to manage rollup logic, fraud-proof validation, and governance mechanisms. The core system components include:

- A centralized sequencer
- State commitment contracts on Ethereum
- Fraud-proof verification systems
- Bridges for asset transfers between L1 and L2

Optimism supports full Ethereum Virtual Machine (EVM) compatibility, allowing developers to deploy existing Ethereum smart contracts without modification. The system is open-source and actively maintained by the Optimism Collective and affiliated contributors.

H.4 Consensus Mechanism

Optimism utilizes an Optimistic Rollup consensus model, which operates in conjunction with Ethereum's Layer 1 consensus (Proof-of-Stake). Under this model, transactions are assumed valid by default and are executed off-chain by a centralized sequencer. These transactions are then batched and submitted to Ethereum for settlement.

A critical component of this model is the fraud-proof system. During a designated challenge period, any network participant can submit a fraud proof to contest the validity of a transaction batch. If the fraud proof is valid, the fraudulent transaction is reverted, and the responsible party may be penalized.

While the current sequencer is centralized, plans are in place for future sequencer decentralization, which would enhance resilience and censorship resistance. Ethereum’s Layer 1 provides final settlement and data availability, ensuring the robustness and security of the system.

H.5 Incentive Mechanisms and Applicable Fees

The OP token is designed to support a protocol-level incentive mechanism that rewards validators and stakers for securing one or more Optimism chains. Holders who stake OP can earn rewards in the form of newly emitted tokens or transaction fees, depending on the chain’s configuration and governance decisions. The protocol may introduce governance-approved emissions to incentivize long-term participation and network security. Applicable fees include transaction (gas) fees, which are paid in OP on Optimism-based chains, and may vary by protocol usage and congestion. Fee structures and reward rates are subject to change through decentralized governance processes.

H.6 Use of Distributed Ledger Technology

True

H.7 DLT Functionality Description[4]

Optimism operates as a Layer 2 scaling solution for Ethereum, utilizing Optimistic Rollups to enhance transaction throughput and reduce costs. In this architecture, transactions are executed off-chain and then bundled into batches, which are submitted to the Ethereum mainnet. These batches are considered valid by default but can be challenged within a specified window using fraud proofs, ensuring the integrity of the network. Optimism maintains compatibility with the Ethereum Virtual Machine (EVM), allowing developers to deploy existing Ethereum smart contracts with minimal modifications.

H.8 Audit

True

H.9 Audit Outcome[5]

Optimism has undergone multiple security audits to ensure the robustness of its protocol. In 2021, OpenZeppelin conducted a comprehensive audit of Optimism's smart contracts, focusing on the Optimistic Virtual Machine (OVM) and associated libraries. The audit identified several issues, which were addressed by the Optimism team. In 2024, third-party audits by Spearbit, Cantina, and

[4] **[19-04-2025]** An explanation regarding DLT Functionality of Optimism Updated in Sub-Part H.7.

[5] **[19-04-2025]** Information about the Audit Outcome of Optimism Updated in Sub-Part H.9.

Code4rena revealed high-severity vulnerabilities in the fault-proof system. Although these vulnerabilities were not exploited and user assets remained secure, the Optimism Foundation proactively reverted the network to a permissioned state and proposed the "Granite" upgrade to address the issues. The upgrade included smart contract enhancements and a Layer 2 hard fork aimed at improving the stability and performance of the fault-proof system.
Link to audit report: https://blog.openzeppelin.com/optimism-smart-contracts-audit

I. I – INFORMATION ON RISKS

I.1 Offer-Related Risks

Participation in the OP token offering may expose users to market volatility and liquidity risks. The price of OP tokens may experience significant fluctuations due to speculative trading, market sentiment, or macroeconomic factors. There is no guarantee of a liquid secondary market for OP tokens, which may hinder their resale or conversion into fiat or other crypto-assets. Investors may also face dilution risk if additional OP tokens are issued in the future. Furthermore, the offering may be subject to regulatory uncertainty, depending on jurisdiction, which could restrict token availability or legal treatment. Participants should also be aware that they may not receive the anticipated utility or rewards associated with OP tokens, depending on the evolution of the protocol and governance decisions.

I.2 Issuer-Related Risks

OP tokens are issued by the Optimism Collective, which is governed through a decentralized governance structure. However, centralized components such as the Optimism Foundation and key developers may wield substantial influence, posing governance centralization risks. Additionally, there may be lack of full transparency in decision-making processes, funding allocation, or project milestones. The issuer's operational continuity may also be affected by regulatory actions, legal claims, or internal organizational changes. If the issuer fails to meet its development roadmap or maintain community trust, the token's utility and market value could decline. Limited legal recourse may be available to token holders in the event of disputes or operational failures by the issuer or affiliated entities.

I.3 Crypto-Assets-Related Risks

Crypto-assets such as OP are subject to high volatility, market speculation, and regulatory scrutiny. OP's value is influenced not only by its underlying utility in governance or protocol economics but also by broader crypto market trends and Ethereum's performance. Risks include loss of private keys, phishing attacks, wallet vulnerabilities, and custodial mismanagement. In the event of a smart contract vulnerability or a major protocol change, OP holders could suffer loss of value or functionality. Additionally, OP may be subject to future regulatory classifications or restrictions, affecting its transferability, tax treatment, or exchange listing. Users must be aware that OP is not backed by any physical assets or legal guarantee of return.

I.4 Project Implementation-Related Risks

The Optimism protocol's success depends on the timely and effective execution of its technical roadmap, community engagement, and integration with the broader Ethereum ecosystem. Delays in feature releases, governance activation, or sequencer decentralization could reduce user confidence. Dependence on core contributors and developers poses execution and continuity risks, especially if key personnel depart or are incapacitated. Funding constraints or shifts in strategic direction may also impact long-term viability. Integration with third-party applications and infrastructure may face compatibility or security challenges. Unforeseen obstacles in legal, technical, or organizational areas may prevent the full realization of the OP token's intended utility and adoption.

I.5 Technology-Related Risks

As a Layer 2 solution, Optimism introduces additional layers of complexity and potential attack vectors. While Optimistic Rollups reduce costs and increase scalability, they rely on fraud proofs and sequencer infrastructure that may be vulnerable to bugs, censorship, or downtime. Smart contract vulnerabilities could be exploited to disrupt transactions, compromise funds, or undermine governance. Delays or failures in decentralizing the sequencer may lead to trust or censorship risks. Additionally, reliance on Ethereum Layer 1 introduces dependency risks, such as changes in Ethereum's consensus or data availability models. Interoperability issues or upgrades on either layer could result in unintended protocol behavior or outages.

I.6 Mitigation Measures

To address these risks, the Optimism Collective has adopted several technical, governance, and operational safeguards. A gradual decentralization roadmap is in place for the sequencer and governance layers to reduce centralization risks. Protocol upgrades undergo rigorous auditing and community review before deployment. Bug bounty programs incentivize disclosure of security flaws. The use of fraud proofs and Ethereum's Proof-of-Stake consensus ensures external validation and Layer 1 fallback security. Treasury governance through the Token House and Citizens' House provides checks and balances for fund allocation. Additionally, the project emphasizes transparency through public roadmaps, open-source development, and third-party auditing to enhance community trust and long-term resilience.

J. PART J – INFORMATION ON THE SUSTAINABILITY INDICATORS IN RELATION TO ADVERSE IMPACT ON THE CLIMATE AND OTHER ENVIRONMENT-RELATED ADVERSE IMPACTS

Adverse impacts on climate and other environment-related adverse impacts.

J.1 Information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism

The OP token operates on the Optimism network, a Layer 2 scaling solution built on top of Ethereum that utilizes Optimistic Rollup technology. This architecture is intended to improve transaction throughput and reduce costs while benefiting from Ethereum's security guarantees. Optimism does not function independently but rather inherits the environmental characteristics of Ethereum's Layer 1 Proof-of-Stake (PoS) consensus mechanism.

While PoS is generally more energy-efficient than traditional Proof-of-Work (PoW) mechanisms, this does not imply an absolute reduction of energy consumption or environmental impact. Instead, the design offers a relatively lower energy burden per transaction, contributing to a more efficient operational model in a comparative sense.

In accordance with MiCA regulations on climate and environmental impact disclosures, the Optimism network reports an estimated annual energy consumption of approximately 8,664.03787 kWh. As a Layer 2 network, the majority of Optimism's sustainability profile is directly influenced by the performance and energy characteristics of Ethereum's base layer. Optimism further improves its energy profile through batching and rollup efficiencies that reduce the need for repeated execution of transactions on Layer 1.

General information	
S.1 Name *Name reported in field A.1*	LCX
S.2 Relevant legal entity identifier Identifier referred to in field A.2	529900SN07Z6RTX8R418
S.3 Name of the crypto-asset Name of the crypto-asset, as reported in field D.2	OP
S.4 Consensus Mechanism The consensus mechanism, as reported in field H.4	Optimistic Rollups Leverage
S.5 Incentive Mechanisms and Applicable Fees Incentive mechanisms to secure transactions and any fees applicable, as reported in field H.5	Optimism is an Ethereum Layer 2 solution using Optimistic Rollups to boost speed and lower costs. Sequencers earn fees for transaction ordering, while validators ensure security through fraud proofs. Economic rewards and penalties align incentives. Users pay reduced Layer 2 transaction, L1 data, and smart contract execution fees.
S.6 Beginning of the period to which the disclosure relates	2024-03-10
S.7 End of the period to which the disclosure relates	2025-03-10

Mandatory key indicator on energy consumption	
S.8 Energy consumption Total amount of energy used for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions, expressed per calendar year	664.03787 kWh/a
Sources and methodologies	
S.9 Energy consumption sources and Methodologies Sources and methodologies used in relation to the information reported in field S.8	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) is calculated first. Based on the crypto asset's gas consumption per network, the share of the total consumption of the respective network that is assigned to this asset is defined. When calculating the energy consumption, we used - if available - the Functionally Fungible Group Digital Token Identifier (FFG DTI) to determine all implementations of the asset of question in scope and we update the mappings regularly, based on data of the Digital Token Identifier Foundation.

J.2 Supplementary information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism

Not Applicable