MiCA White Paper

Uniswap (UNI)

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).

LCX is voluntarily filing a MiCA-compliant whitepaper for Uniswap (UNI), despite UNI being classified as "Other Crypto-Assets" under the Markets in Crypto-Assets Regulation (MiCA). Unlike Asset-Referenced Tokens (ARTs), Electronic Money Tokens (EMTs), or Utility Tokens, Uniswap does not legally require a MiCA whitepaper. However, MiCA permits service providers to voluntarily publish a whitepaper to enhance transparency, regulatory clarity, and investor confidence. As one of the leading decentralized finance (DeFi) protocols, Uniswap plays a crucial role in the Web3 ecosystem, providing a permissionless and automated liquidity protocol for token swaps. Built on the Ethereum blockchain, Uniswap leverages smart contracts to facilitate decentralized trading, yield farming, and governance through its UNI token. The protocol operates without intermediaries, fostering open financial markets and innovation in decentralized exchange mechanisms.

This document provides essential information about Uniswap's characteristics, risks, and the framework under which LCX facilitates UNI-related services in compliance with MiCA's regulatory standards.

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).

Copyright:

This White Paper is under **copyright** of LCX AG Liechtenstein and may not be used, copied, or published by any third party without explicit written permission from LCX AG.

00 **TABLE OF CONTENT**

COMPLIANCE STATEMENTS	6
SUMMARY	7
A. PART A - INFORMATION ABOUT THE OFFEROR OR THE PERSON SEEKING ADMIS	
TRADING	9
A.1 Name	9
A.2 Legal Form	9
A.3 Registered Address	9
A.4 Head Office	g
A.5 Registration Date	9
A.6 Legal Entity Identifier	9
A.7 Another Identifier Required Pursuant to Applicable National Law	9
A.8 Contact Telephone Number	9
A.9 E-mail Address	g
A.10 Response Time (Days)	g
A.11 Parent Company	9
A.12 Members of the Management Body	g
A.13 Business Activity	g
A.14 Parent Company Business Activity	10
A.15 Newly Established	10
A.16 Financial Condition for the past three Years	10
A.17 Financial Condition Since Registration	10
B. PART B - INFORMATION ABOUT THE ISSUER, IF DIFFERENT FROM THE OFFEROR	
SEEKING ADMISSION TO TRADING	11
B.1 Issuer different from offeror or person seeking admission to trading	11
B.2 Name	11
B.3 Legal Form	11
B.4 Registered Address	11
B.5 Head Office	11
B.6 Registration Date	11
B.7 Legal Entity Identifier	11
B.8 Another Identifier Required Pursuant to Applicable National Law	11
B.9 Parent Company	11
B.10 Members of the Management Body	11
B.11 Business Activity	11
B.12 Parent Company Business Activity	11
C. PART C - INFORMATION ABOUT THE OPERATOR OF THE TRADING PLATFORM IN IT DRAWS UP THE CRYPTO-ASSET WHITE PAPER AND INFORMATION ABOUT OTHE	
DRAWING THE CRYPTO-ASSET WHITE PAPER AND INFORMATION ABOUT OTHE DRAWING THE CRYPTO-ASSET WHITE PAPER PURSUANT TO ARTICLE 6(1), SECON	
SUBPARAGRAPH, OF REGULATION (EU) 2023/1114	12
C.1 Name	12
C.2 Legal Form	12
C.3 Registered Address	12
C.4 Head Office	12
C.5 Registration Date	12

	C.6 Legal Entity Identifier	12
	C.7 Another Identifier Required Pursuant to Applicable National Law	12
	C.8 Parent Company	12
	C.9 Reason for Crypto-Asset White Paper Preparation	12
	C.10 Members of the Management Body	12
	C.11 Operator Business Activity	12
	C.12 Parent Company Business Activity	13
	C.13 Other persons drawing up the white paper under Article 6 (1) second subparagraph MiCA	13
	C.14 Reason for drawing up the white paper under Article 6 (1) second subparagraph MiCA	13
D.	PART D - INFORMATION ABOUT THE CRYPTO-ASSET PROJECT	14
	D.1 Crypto-Asset Project Name	14
	D.2 Crypto-Assets Name	14
	D.3 Abbreviation	14
	D.4 Crypto-Asset Project Description	14
	D.5 Details of all persons involved in the implementation of the crypto-asset project	14
	D.6 Utility Token Classification	14
	D.7 Key Features of Goods/Services for Utility Token Projects	14
	D.8 Plans for the Token	14
	D.9 Resource Allocation	14
	D.10 Planned Use of Collected Funds or Crypto-Assets	14
	PART E - INFORMATION ABOUT THE OFFER TO THE PUBLIC OF CRYPTO-ASSETS OR THEIR	45
AL	DMISSION TO TRADING	15
	E.1 Public Offering or Admission to Trading	15 15
	E.2 Reasons for Public Offer or Admission to Trading E.3 Fundraising Target	15
	E.4 Minimum Subscription Goals	15
	E.5 Maximum Subscription Goal	15
	E.6 Oversubscription Acceptance	15
	E.7 Oversubscription Allocation	15
	E.8 Issue Price	15
	E.9 Official Currency or Any Other Crypto-Assets Determining the Issue Price	15
	E.10 Subscription Fee	15
	E.11 Offer Price Determination Method	15
	E.12 Total Number of Offered/Traded Crypto-Assets	15
	E.13 Targeted Holders	15
	E.14 Holder Restrictions	15
	E.15 Reimbursement Notice	16
	E.16 Refund Mechanism	16
	E.17 Refund Timeline	16
	E.18 Offer Phases	16
	E.19 Early Purchase Discount	16
	E.20 Time-Limited Offer	16
	E.21 Subscription Period Beginning	16
	E.22 Subscription Period End	16
	E.23 Safeguarding Arrangements for Offered Funds/Crypto-Assets	16
	E.24 Payment Methods for Crypto-Asset Purchase	16
	E.25 Value Transfer Methods for Reimbursement	16

	E.26 Right of Withdrawal	16
	E.27 Transfer of Purchased Crypto-Assets	16
	E.28 Transfer Time Schedule	16
	E.29 Purchaser's Technical Requirements	16
	E.30 Crypto-asset service provider (CASP) name	16
	E.31 CASP identifier	16
	E.32 Placement Form	16
	E.33 Trading Platforms name	16
	E.34 Trading Platforms Market Identifier Code (MIC)	17
	E.35 Trading Platforms Access	17
	E.36 Involved Costs	17
	E.37 Offer Expenses	17
	E.38 Conflicts of Interest	17
	E.39 Applicable Law	17
	E.40 Competent Court	17
F.	PART F - INFORMATION ABOUT THE CRYPTO-ASSETS	18
	F.1 Crypto-Asset Type	18
	F.2 Crypto-Asset Functionality	18
	F.3 Planned Application of Functionalities	18
	F.4 Type of white paper	18
	F.5 The type of submission	18
	F.6 Crypto-Asset Characteristics	18
	F.7 Commercial name or trading name	18
	F.8 Website of the issuer	18
	F.9 Starting date of offer to the public or admission to trading	18
	F.10 Publication date	18
	F.11 Any other services provided by the issuer	18
	F.12 Language or languages of the white paper	18
	F.13 Digital Token Identifier Code used to uniquely identify the crypto-asset or each of the several cr assets to which the white paper relates, where available	ypto 18
	F.14 Functionally Fungible Group Digital Token Identifier, where available	19
	F.15 Voluntary data flag	19
	F.16 Personal data flag	19
	F.17 LEI eligibility	19
	F.18 Home Member State	19
	F.19 Host Member States	19
	PART G - INFORMATION ON THE RIGHTS AND OBLIGATIONS ATTACHED TO THE RYPTO-ASSETS	20
	G.1 Purchaser Rights and Obligations	20
	G.2 Exercise of Rights and Obligation	20
	G.3 Conditions for Modifications of Rights and Obligations	20
	G.4 Future Public Offers	20
	G.5 Issuer Retained Crypto-Assets	20
	G.6 Utility Token Classification	20
	G.7 Key Features of Goods/Services of Utility Tokens	20
	G.8 Utility Tokens Redemption	20
	G.9 Non-Trading Request	20

G.10 Crypto-Assets Purchase or Sale Modalities	20
G.11 Crypto-Assets Transfer Restrictions	20
G.12 Supply Adjustment Protocols	20
G.13 Supply Adjustment Mechanisms	20
G.14 Token Value Protection Schemes	21
G.15 Token Value Protection Schemes Description	21
G.16 Compensation Schemes	21
G.17 Compensation Schemes Description	21
G.18 Applicable Law	21
G.19 Competent Court	21
H. PART H – INFORMATION ON THE UNDERLYING TECHNOLOGY	21
H.1 Distributed ledger technology	21
H.2 Protocols and Technical Standards	22
H.3 Technology Used	23
H.4 Consensus Mechanism	23
H.5 Incentive Mechanisms and Applicable Fees	24
H.6 Use of Distributed Ledger Technology	24
H.7 DLT Functionality Description	24
H.8 Audit	24
H.9 Audit Outcome	24
I. PART I – INFORMATION ON RISKS	25
I.1 Offer-Related Risks	25
I.2 Issuer-Related Risks	25
I.3 Crypto-Assets-Related Risks	25
I.4 Project Implementation-Related Risks	26
I.5 Technology-Related Risks	26
I.6 Mitigation Measures	26
J. PART J – INFORMATION ON THE SUSTAINABILITY INDICATORS IN RELATION TO ADVERSE IMPACT ON THE CLIMATE AND OTHER ENVIRONMENT-RELATED ADVERSE IMPACTS	27
J.1 Mandatory information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism	l 27
J.2 Supplementary information on principal adverse impacts on the climate and other environment-re adverse impacts of the consensus mechanism	lated 28

01 DATE OF NOTIFICATION

2025-04-07

COMPLIANCE STATEMENTS

- 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'.
- 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.
- 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
- 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

Uniswap (UNI) is an ERC-20 governance token of the Uniswap protocol, a decentralized exchange (DEX) built on Ethereum that enables automated, permissionless token swaps through smart contracts. As a key component of the DeFi ecosystem, Uniswap removes intermediaries by using liquidity pools, allowing users to trade directly on-chain. UNI holders participate in protocol governance, voting on upgrades, fee structures, and treasury allocations. With a fixed total supply of 1 billion tokens, UNI is fully transferable and operates within Ethereum's Proof-of-Stake (PoS) security framework, ensuring transparency and decentralization while being subject to market and regulatory risks.

09 Not applicable

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

Uniswap (UNI) tokens were initially distributed by Uniswap Labs and are freely tradable on both centralized and decentralized exchanges, including MiCA-compliant platforms. As a decentralized protocol with no single issuer, UNI tokens are available for public trading without restrictions. Investors should be aware of risks such as regulatory uncertainty, smart contract vulnerabilities, and market volatility. UNI's liquidity is supported by its widespread adoption in DeFi, and holders can participate in governance decisions, influencing protocol upgrades and fee structures.

Total offer amount	Not applicable
Total number of tokens to be offered to the public	Not applicable
Subscription period	Not applicable
Minimum and maximum subscription amount	Not applicable
Issue price	Not applicable
Subscription fees (if any)	Not applicable
Target holders of tokens	Not applicable
Description of offer phases	Not applicable
CASP responsible for placing the token (if any)	Not applicable

Form of placement	Not applicable
Admission to trading	LCX AG, Herrengasse 6, 9490 Vaduz, Liechtenstein

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. LCX AG has applied

for MiCA licensing on February 1, 2025, the first day of MiCA's implementation in Liechtenstein.

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 TRADING¹

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

True

B.2 Name

Uniswap Labs (Legal name: Universal Navigation, Inc.)

B.3 Legal Form

Corporation (Privately held U.S. company)

B.4 Registered Address

181 North 11th Street, Apt 406, Brooklyn, NY 11211, United States

B.5 Head Office

SoHo, New York, NY, United States

B.6 Registration Date

March 25, 2019

B.7 Legal Entity Identifier

Not applicable

B.8 Another Identifier Required Pursuant to Applicable National Law

Not applicable

B.9 Parent Company

Uniswap Labs operates independently and does not have a parent company.

B.10 Members of the Management Body

- Hayden Adams Founder & Chief Executive Officer
- Mary-Catherine Lader Chief Operating Officer
- Marvin Ammori Chief Legal Officer

B.11 Business Activity

Uniswap Labs is a software development company specializing in decentralized finance (DeFi). It develops and maintains the Uniswap Protocol, a decentralized exchange (DEX) facilitating automated token swaps on the Ethereum blockchain. The company also offers related products, including the Uniswap web interface and mobile wallet, to enhance user access to DeFi services.

B.12 Parent Company Business Activity

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 Uniswap(UNI) to enhance transparency, regulatory clarity, and investor confidence. While Uniswap 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 UNI 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

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. LCX AG has applied for MiCA licensing on February 1, 2025, the first day of MiCA's implementation in Liechtenstein.

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.

C.12 Parent Company Business Activity

- 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

Uniswap

D.2 Crypto-Assets Name

UNI

D.3 Abbreviation

UNI

D.4 Crypto-Asset Project Description

Uniswap is a decentralized exchange (DEX) protocol built on the Ethereum blockchain, enabling automated, permissionless token swaps through smart contracts. The protocol eliminates the need for traditional order books by utilizing liquidity pools, where users contribute assets to earn fees. Uniswap is a key player in the decentralized finance (DeFi) ecosystem, offering an open-source, censorship-resistant, and community-governed trading infrastructure. The UNI token serves as a governance tool, allowing holders to vote on protocol upgrades, fee structures, and treasury management.

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

Uniswap was initially developed by Uniswap Labs, founded by Hayden Adams in 2018. The protocol operates as an open-source, decentralized project with contributions from independent developers, researchers, and governance participants worldwide. While Uniswap Labs continues to contribute to its development, control over key protocol changes and treasury decisions rests with the Uniswap decentralized autonomous organization (DAO), governed by UNI token holders. Smart contract audits and security reviews are conducted by third-party firms to enhance protocol reliability.

Full Name	Business Address	Function
Hayden Adams	Not applicable	Co-founder, Early Developer and CEO
Uniswap Labs	New York City	Development Team & Core Contributor
Uniswap Foundation	New York City	Ecosystem Growth & Governance Support
Ethereum	Global	Blockchain Infrastructure Support
Governance Delegates	Global	Review & vote on governance proposals

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

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 Uniswap (UNI) to enhance transparency, regulatory clarity, and investor confidence. While UNI 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 Uniswap 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 Uniswap in a compliant manner. It further supports the broader market adoption and integration of Uniswap 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

Uniswap (UNI) has a fixed total supply of 1 billion UNI tokens, which were initially distributed over a four-year period starting in September 2020. A portion of the tokens was allocated to the community, team members, investors, and advisors. UNI tokens are actively traded on both centralized and decentralized exchanges, with a circulating supply that fluctuates based on user transactions and governance participation. As an ERC-20 token, UNI remains fully transferable and accessible for trading across MiCA-compliant platforms.

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

Uniswap (UNI) is traded on both decentralized (DEX) and centralized (CEX) exchanges, including MiCA-compliant platforms. It is primarily available on the Uniswap DEX for direct swaps via liquidity pools and is also listed on major CEXs. UNI is fully transferable and compatible with Ethereum-based wallets, ensuring broad accessibility.

LCX Exchange also provides access to Uniswap (UNI) trading. Investors can access Uniswap (\$UNI) through LCX.com, the official LCX exchange, as well as other supported cryptocurrency trading platforms. To trade \$UNI, 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

Uniswap (UNI) operates within the regulatory framework of the Markets in Crypto-Assets Regulation (MiCA) in the European Economic Area, where it is classified as an "Other Crypto-Asset" rather than an Asset-Referenced Token (ART) or Electronic Money Token (EMT). As a decentralized protocol with no central issuer, Uniswap is subject to general financial regulations, including anti-money laundering (AML) and counter-terrorism financing (CTF) measures where applicable. Trading platforms listing UNI must comply with MiCA and relevant national laws in their jurisdictions.

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

Uniswap (UNI) is a governance token that allows holders to participate in decision-making for the Uniswap protocol, a decentralized exchange (DEX) on Ethereum. UNI holders can vote on protocol upgrades, fee structures, and treasury allocations through the Uniswap decentralized autonomous organization (DAO). Unlike utility tokens, UNI does not grant access to specific services or products but serves as a governance mechanism, ensuring community-driven protocol development. It is fully transferable and tradable across various platforms, maintaining liquidity in decentralized finance (DeFi) markets.

Uniswap (UNI) is not classified as a utility token under Article 3(5) of Regulation (EU) 2023/1114 (MiCA), because it does not provide access to specific goods or services offered by the issuer or a third party. Rather, UNI functions solely as a governance token, granting holders the ability to vote on protocol upgrades and community treasury proposals. It does not serve a consumptive function, nor does it facilitate access to a specific product or benefit.

F.3 Planned Application of Functionalities

Uniswap (UNI) will continue as a **governance token**, enabling holders to vote on protocol upgrades, fees, and treasury management via the Uniswap DAO. Future plans include enhanced governance mechanisms, liquidity incentives, and Layer 2 integrations to improve scalability and efficiency.

F.4 Type of white paper

OTHR

F.5 The type of submission

NEWT

F.6 Crypto-Asset Characteristics

Uniswap (UNI) is an ERC-20 governance token on the Ethereum blockchain, used to facilitate decentralized decision-making within the Uniswap protocol. It allows holders to vote on protocol upgrades, fee structures, and treasury allocations. UNI has a fixed total supply of 1 billion tokens, is fully transferable, and is primarily traded on decentralized and centralized exchanges. It does not provide financial claims or direct utility beyond governance, classifying it as an "Other Crypto-Asset" under MiCA.

F.7 Commercial name or trading name

UNI

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

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

XMB84LZBZ

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

Under MiCA, Uniswap users have rights and obligations, including access to a crypto-asset white paper (Article 19) detailing governance, risks, and obligations. Uniswap must ensure fair trading and prevent market abuse (Title VI). Purchasers of Asset-Referenced Tokens (ARTs) or Electronic Money Tokens (EMTs) may have a 14-day withdrawal right (Article 37). Additionally, MiCA requires a complaint-handling mechanism (Article 31), which may necessitate governance-based dispute resolution on Uniswap. As UNI is classified as an 'Other Crypto-Asset' under MiCA, purchasers do not benefit from the 14-day withdrawal right applicable to ARTs and EMTs. UNI does not offer redemption rights, profit entitlement, or legal claims against an issuer. Token holders may exercise governance rights through the Uniswap DAO, as outlined in protocol rules. Participation is voluntary and subject to the DAO's procedures.

G.2 Exercise of Rights and Obligation

Uniswap users exercise rights through smart contracts and governance rules. MiCA mandates fair execution policies (Article 79), governance transparency for UNI holders, and redemption rights for ARTs/EMTs (Articles 36 & 67). If deemed a CASP, Uniswap must ensure fee transparency. Liquidity providers (LPs) may face compliance obligations and risk disclosure requirements.

G.3 Conditions for Modifications of Rights and Obligations

Uniswap's smart contracts and governance changes must align with MiCA's fair treatment and transparency principles. Material changes to token functionality, such as governance or staking rewards, must be disclosed, with issuers notifying authorities and users (Article 20). Governance rule modifications may require a formal approval process with clear voting outcomes. Smart contract upgrades (e.g., Uniswap V2 to V3) should be communicated in advance, with safeguards to prevent unfair modifications.

G.4 Future Public Offers

Not applicable

G.5 Issuer Retained Crypto-Assets

Not applicable

G.6 Utility Token Classification

Nο

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

G.12 Supply Adjustment Protocols²

The UNI token follows a fixed supply model with no algorithmic rebasing or elastic supply adjustment. The token's total supply is capped at 1 billion UNI tokens, and no new tokens will be minted beyond this cap. The issuance schedule and distribution mechanisms are hardcoded in the smart contracts and governed by the Uniswap DAO.

G.13 Supply Adjustment Mechanisms³

UNI token distribution was pre-defined at launch and follows a linear vesting schedule:

60% to the Uniswap community (via airdrops, liquidity mining, etc.)

21.266% to team members and future employees (4-year vesting)

18.044% to investors (4-year vesting)

0.69% to advisors (4-year vesting)

There is no burning mechanism or automatic supply contraction protocol. Any potential supply reduction (e.g., through token burns) would need to be proposed and approved through Uniswap DAO governance.

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

Under MiCA compliance, Uniswap's Applicable Law would fall under Regulation (EU) 2023/1114, which governs crypto-assets and related services within the European Economic Area (EEA). If Uniswap qualifies as a Crypto-Asset Service Provider (CASP) or facilitates trading of regulated tokens such as Asset-Referenced Tokens (ARTs) or Electronic Money Tokens (EMTs), it must comply with MiCA's market integrity, investor protection, and AML/CFT requirements. Since Uniswap operates as a decentralized protocol, jurisdictional considerations may depend on where governance decisions are made or where regulated activities (if any) occur. Compliance with national laws of EU Member States may also be required based on user location and regulatory oversight.

While Uniswap (UNI) is not governed by a specific national legal framework due to its decentralized nature, LCX AG—as the entity facilitating admission to trading of UNI under MiCA—is subject to the laws of Liechtenstein and Regulation (EU) 2023/1114. Services provided by LCX AG in relation to UNI fall under MiCA and applicable national financial regulation, including provisions on market integrity, disclosure, and investor protection.

G.19 Competent Court

Not applicable - Uniswap is a decentralized protocol with no central legal entity, determining jurisdiction can be complex. However, if Uniswap or any affiliated entity provides regulated services within the European Economic Area (EEA), disputes may fall under the jurisdiction of the competent courts in the Member State where the service provider is registered or operates. Additionally, MiCA mandates clear dispute resolution mechanisms for crypto-asset issuers and CASPs, meaning

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

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

Uniswap may need to specify a competent court or arbitration framework if it engages in regulated activities.

H. PART H – INFORMATION ON THE UNDERLYING TECHNOLOGY

H.1 Distributed ledger technology

Uniswap operates on Distributed Ledger Technology (DLT), specifically on blockchain networks like Ethereum, to facilitate decentralized trading of crypto-assets through smart contracts. Unlike centralized exchanges, Uniswap does not rely on intermediaries; instead, it uses automated market maker (AMM) algorithms to enable peer-to-peer trading.

Key Aspects of DLT in Uniswap:

Smart Contracts: Uniswap's core functions (swaps, liquidity provision, and governance) are executed through immutable smart contracts deployed on Ethereum, ensuring trustless and transparent transactions.

Decentralization: Unlike traditional exchanges, Uniswap operates on public, permissionless blockchains, allowing users to trade assets without a central authority.

Security & Transparency: Every transaction is recorded on the blockchain, providing a tamper-proof and publicly verifiable ledger, reducing fraud and increasing transparency.

Interoperability: Uniswap's smart contracts can be integrated into other DeFi protocols, enhancing liquidity and financial services within the crypto ecosystem.

H.2 Protocols and Technical Standards

Uniswap operates on Ethereum's Distributed Ledger Technology (DLT) and follows specific protocols and technical standards to ensure secure, transparent, and efficient decentralized trading.

1. Protocols Used by Uniswap:

Automated Market Maker (AMM): Instead of using order books, Uniswap's AMM model facilitates peer-to-peer trading via liquidity pools, where prices are determined algorithmically based on supply and demand.

Smart Contracts: Uniswap's decentralized exchange (DEX) is fully governed by Ethereum-based smart contracts, enabling secure, self-executing transactions without intermediaries.

Governance Protocol: UNI token holders participate in protocol upgrades and governance decisions, ensuring decentralization.

2. Technical Standards Implemented by Uniswap:

Ethereum Token Standards:

ERC-20: Supports fungible tokens used for trading on Uniswap.

ERC-721 & ERC-1155: Used for NFTs and liquidity positions in Uniswap V3.

Smart Contract Security Standards: Uniswap follows best practices for auditability, upgradability, and exploit prevention in smart contract design.

Interoperability & API Standards: Uniswap integrates off-chain data feeds (oracles) and supports cross-chain interoperability via layer-2 scaling solutions.

H.3 Technology Used

The Uniswap token (UNI) is an ERC-20 governance token on Ethereum, enabling holders to participate in protocol governance and decision-making. It operates on Ethereum (Layer 1) for security and decentralization but is also compatible with Layer 2 solutions like Optimism and Arbitrum for lower fees and faster transactions. UNI facilitates on-chain governance, allowing token holders to vote on protocol upgrades, fee structures, and liquidity incentives, with smart contracts enforcing decisions autonomously. Transactions and governance actions are recorded on Ethereum's immutable blockchain, ensuring transparency and security, while cross-chain interoperability enables UNI to be bridged to other blockchains for broader DeFi integration.

H.4 Consensus Mechanism

Uniswap operates on Ethereum and Binance Smart Chain (BSC), both using different consensus mechanisms to validate transactions and secure the network. While MiCA (Regulation EU 2023/1114) does not regulate blockchain consensus mechanisms directly, it imposes compliance obligations on Crypto-Asset Service Providers (CASPs) and issuers of regulated tokens.

Ethereum (Proof-of-Stake - PoS):

Ethereum uses Proof-of-Stake (PoS), where validators stake ETH to propose and validate new blocks.

Validators earn staking rewards but face penalties (slashing) for malicious activity or inactivity, ensuring network security.

MiCA requires transparency on validator roles and risks if Uniswap facilitates regulated crypto-assets (ARTs/EMTs).

Binance Smart Chain (Proof of Staked Authority - PoSA):

BSC operates on Proof of Staked Authority (PoSA), combining staking and delegated voting to select validators.

Validators stake BNB and earn transaction fees, while delegators can stake BNB to share rewards.

MiCA may require clear disclosures on validator incentives and risk exposure for users interacting with Uniswap on BSC.

If Uniswap qualifies as a CASP, it must ensure transparent governance, validator selection processes, and risk disclosures related to its underlying consensus mechanisms.

Uniswap itself does not operate a consensus mechanism, as it is deployed on existing Layer 1 blockchains (primarily Ethereum, also accessible via BSC bridges). Therefore, Uniswap's operations inherit the consensus properties of the host chain.

H.5 Incentive Mechanisms and Applicable Fees

Incentive Mechanisms:

Liquidity Providers (LPs): Users earn a share of trading fees by providing liquidity to Uniswap pools, a system that must ensure fair rewards and transparent risk disclosures under MiCA.

Governance Participants: UNI token holders influence protocol upgrades and fee structures, requiring clear governance disclosures to comply with MiCA's investor protection rules.

Applicable Fees:

Trading Fees: Swaps on Uniswap incur fees (e.g., 0.05% to 1%) depending on the liquidity pool. MiCA mandates transparent fee structures for CASPs.

Network Fees: Transactions are subject to Ethereum or Binance Smart Chain (BSC) gas fees, which are dynamically adjusted based on network congestion.

Smart Contract Fees: Deploying and interacting with smart contracts on Uniswap incurs gas fees, which must be disclosed under MiCA's fair pricing rules.

If Uniswap is deemed a CASP, it may need to standardize fee disclosures, prevent hidden costs, and ensure fair incentives under MiCA's compliance framework.

H.6 Use of Distributed Ledger Technology

True

H.7 DLT Functionality Description

Uniswap operates on Ethereum's public distributed ledger, using smart contracts for token swaps, liquidity provision, and governance. All transactions are recorded on-chain, ensuring transparency, immutability, and traceability. The DLT ensures finality and enables trustless trading without intermediaries.

H.8 Audit

True

H.9 Audit Outcome

Uniswap smart contracts have been independently audited by reputable third-party security firms. Audit reports are publicly available and reviewed by the Uniswap community as part of its open-source governance. Identified issues were addressed before deployment. Here is the link to Uniswap audit report:

https://github.com/ConsenSysDiligence/Uniswap-audit-report-2018-12

I. PART I - INFORMATION ON RISKS

I.1 Offer-Related Risks

Uniswap's regulatory status remains uncertain under MiCA, as its decentralized nature makes it unclear whether it qualifies as a Crypto-Asset Service Provider (CASP). Additionally, if UNI or liquidity provider (LP) tokens are classified as Asset-Referenced Tokens (ARTs) or Electronic Money Tokens (EMTs), Uniswap could face additional regulatory requirements and authorization burdens. The platform's permissionless token listings also pose market manipulation risks, as fraudulent or Low-liquidity tokens can be introduced, leading to price manipulation and investor losses.

I.2 Issuer-Related Risks

Uniswap's decentralized governance relies on UNI token holders, which may lead to centralization by large stakeholders (whales), governance attacks, or poor decision-making that negatively impacts users. Unlike centralized exchanges, Uniswap lacks a legal entity for compliance, dispute resolution, or regulatory accountability under MiCA. Additionally, while decentralized, Uniswap Labs and core developers influence protocol updates, creating a dependency risk, where unexpected changes or halted development could pose challenges for users and the platform's long-term stability.

I.3 Crypto-Assets-Related Risks

Uniswap faces liquidity risks as shortages in liquidity pools can cause higher slippage, reduced market efficiency, and difficulty executing large trades. Liquidity providers (LPs) risk impermanent loss, where price fluctuations lead to lower returns than simply holding assets. Additionally, token volatility exposes users to sudden price swings and potential losses. Unlike regulated financial instruments, most tokens on Uniswap lack intrinsic value or legal backing, making them vulnerable to speculation and market manipulation.

I.4 Project Implementation-Related Risks

Uniswap's periodic smart contract upgrades (e.g., V2 to V3) may introduce bugs, compatibility issues, or governance conflicts that impact users. Additionally, competition from other DEXs and centralized exchanges poses an adoption risk, where slower growth or better alternatives could affect Uniswap's long-term viability. Scalability remains a challenge, as high trading volumes on Ethereum can lead to network congestion and rising gas fees, reducing transaction efficiency and user experience.

I.5 Technology-Related Risks

Uniswap relies on Ethereum and Binance Smart Chain (BSC) smart contracts, making it vulnerable to exploits, coding errors, or security breaches that could result in loss of user funds or protocol failure. Its dependence on blockchain networks means network congestion, high gas fees, or chain disruptions could impact trading efficiency and user experience. Additionally, if Uniswap integrates oracles for price feeds, it may face risks from manipulated data, oracle failures, or incorrect pricing information, potentially affecting market integrity and fair trading practices.

I.6 Mitigation Measures

Uniswap enhances security through third-party smart contract audits and bug bounty programs to identify vulnerabilities before exploitation. Governance protections, such as transparent voting mechanisms and community participation, help prevent centralization risks. To maintain high liquidity and reduce slippage, Uniswap offers yield farming and staking rewards. If classified as a Crypto-Asset Service Provider (CASP) under MiCA, it may need to implement disclosure policies, risk warnings, and AML/CFT compliance measures. Additionally, scalability solutions like Layer 2 integrations (Optimism, Arbitrum) helps reduce gas fees and improve transaction efficiency for users.

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 Uniswap protocol is deployed on multiple blockchain networks that utilize more energy-efficient consensus mechanisms, primarily Ethereum's Proof-of-Stake (PoS) and Binance Smart Chain's Proof-of-Staked Authority (PoSA). These consensus models are generally recognized as less energy-intensive than traditional Proof-of-Work (PoW) systems, such as Bitcoin. While these networks inherently require less energy per transaction compared to PoW blockchains, it is important to clarify that this does not amount to a net reduction in total energy consumption or environmental impact in absolute terms. Instead, these mechanisms offer comparatively lower energy demands, thereby providing a relatively more sustainable infrastructure.

General information		
S.1 Name	LCX	
Name reported in field A.1		
S.2 Relevant legal entity identifier	529900SN07Z6RTX8R418	
Identifier referred to in field A.2		
S.3 Name of the crypto-asset	UNI	
Name of the crypto-asset, as reported in field D.2		
S.4 Consensus Mechanism	Proof of Staked Authority (PoSA)	
The consensus mechanism, as reported in field H.4		
S.5 Incentive Mechanisms and Applicable Fees	Uniswap operates on Ethereum and Binance Smart Chain (BSC), each with distinct	
Incentive mechanisms to secure transactions and any fees applicable, as reported in field H.5	consensus mechanisms, incentive structures, and fee models. BSC uses Proof of Staked Authority (PoSA), where validators stake BNB, earning transaction fees and block rewards. Delegators can stake BNB with validators to share rewards, while penalties like slashing discourage misconduct. Ethereum uses Proof-of-Stake (PoS), requiring validators to stake 32 ETH, earning newly minted ETH and transaction fees. Fees include gas fees, priority fees (tips), and slashing penalties for misconduct. Both networks support smart contract execution, cross-chain transactions, and dynamic fee structures to optimize security and efficiency.	
S.6 Beginning of the period to which the disclosure relates	2024-03-13	
S.7 End of the period to which the disclosure relates	2025-03-13	
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

18143.41036 kWh per year

Sources and methodologies

S.9 Energy consumption sources and Methodologies

Sources and methodologies used in relation to the information reported in field S.8

For the calculation of energy consumptions, the so-called "bottom-up" approach is being used. The nodes are considered to be the central factor for the energy consumption of the network. These assumptions are made on the basis of empirical findings through the use of public information sites, open-source crawlers and crawlers developed in-house. The main determinants for estimating the hardware used within the network are the requirements for operating the client software. The energy consumption of the hardware devices was measured in certified test laboratories. 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