MiCA White Paper

XRP

Version 1.1
April 2025

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

Purpose: seeking admission to trading in EU/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 UNION. THE PERSON SEEKING ADMISSION TO TRADING IS SOLELY RESPONSIBLE FOR THE CONTENT OF THIS CRYPTO-ASSET WHITE PAPER ACCORDING TO THE EUROPEAN UNION'S MARKETS IN CRYPTO-ASSET REGULATION (MICA).

LCX is **voluntarily filing a MiCA-compliant whitepaper for XRP** as XRP is 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, XRP does not legally require a MiCA whitepaper. However, MiCA allows service providers to publish a whitepaper voluntarily to enhance transparency, regulatory clarity, and investor confidence. As one of the most widely adopted blockchain networks, XRP plays a critical role in the Web3 ecosystem, powering smart contracts, decentralized applications (dApps), and financial innovation. This whitepaper aims to provide a comprehensive regulatory disclosure, ensuring market participants have clear insights into XRP's functionality, risks, and role within the MiCA framework.

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

00 TABLE OF CONTENT

COMPLIANCE STATEMENTS **6**

SUMMARY **7**

A. PART A - INFORMATION ABOUT THE OFFEROR OR THE PERSON SEEKING ADMISSION TO TRADING **9**

A.1 Name 9

A.2 Legal Form 9

A.3 Registered Address 9

A.4 Head Office 9

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 9

A.10 Response Time (Days) 9

A.11 Parent Company 9

A.12 Members of the Management Body 9

A.13 Business Activity 9

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 OR PERSON 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 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 **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 15
D.8 Plans for the Token 15
D.9 Resource Allocation 15
D.10 Planned Use of Collected Funds or Crypto-Assets 15
E. PART E - INFORMATION ABOUT THE OFFER TO THE PUBLIC OF CRYPTO-ASSETS OR THEIR ADMISSION TO TRADING 16
E.1 Public Offering or Admission to Trading 16
E.2 Reasons for Public Offer or Admission to Trading 16
E.3 Fundraising Target 16
E.4 Minimum Subscription Goals 16
E.5 Maximum Subscription Goal 16
E.6 Oversubscription Acceptance 16
E.7 Oversubscription Allocation 16
E.8 Issue Price 16
E.9 Official Currency or Any Other Crypto-Assets Determining the Issue Price 16
E.10 Subscription Fee 16
E.11 Offer Price Determination Method 16
E.12 Total Number of Offered/Traded Crypto-Assets 16
E.13 Targeted Holders 16
E.14 Holder Restrictions 16
E.15 Reimbursement Notice 17
E.16 Refund Mechanism 17
E.17 Refund Timeline 17
E.18 Offer Phases 17
E.19 Early Purchase Discount 17
E.20 Time-Limited Offer 17
E.21 Subscription Period Beginning 17
E.22 Subscription Period End 17
E.23 Safeguarding Arrangements for Offered Funds/Crypto-Assets 17
E.24 Payment Methods for Crypto-Asset Purchase 17
E.25 Value Transfer Methods for Reimbursement 17

E.26 Right of Withdrawal 17
E.27 Transfer of Purchased Crypto-Assets 17
E.28 Transfer Time Schedule 17
E.29 Purchaser's Technical Requirements 17
E.30 Crypto-asset service provider (CASP) name 17
E.31 CASP identifier 17
E.32 Placement Form 17
E.33 Trading Platforms name 17
E.34 Trading Platforms Market Identifier Code (MIC) 18
E.35 Trading Platforms Access 18
E.36 Involved Costs 18
E.37 Offer Expenses 18
E.38 Conflicts of Interest 18
E.39 Applicable Law 18
E.40 Competent Court 18
F. PART F - INFORMATION ABOUT THE CRYPTO-ASSETS 19
F.1 Crypto-Asset Type 19
F.2 Crypto-Asset Functionality 19
F.3 Planned Application of Functionalities 19
F.4 Type of white paper 19
F.5 The type of submission 19
F.6 Crypto-Asset Characteristics 19
F.7 Commercial name or trading name 19
F.8 Website of the issuer 19
F.9 Starting date of offer to the public or admission to trading 19
F.10 Publication date 19
F.11 Any other services provided by the issuer 19
F.12 Language or languages of the white paper 19
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 20
F.14 Functionally Fungible Group Digital Token Identifier, where available 20
F.15 Voluntary data flag 20
F.16 Personal data flag 20
F.17 LEI eligibility 20
F.18 Home Member State 20
F.19 Host Member States 20
G. PART G - INFORMATION ON THE RIGHTS AND OBLIGATIONS ATTACHED TO THE CRYPTO-ASSETS 21
G.1 Purchaser Rights and Obligations 21
G.2 Exercise of Rights and Obligation 21
G.3 Conditions for Modifications of Rights and Obligations 21
G.4 Future Public Offers 21
G.5 Issuer Retained Crypto-Assets 21
G.6 Utility Token Classification 21
G.7 Key Features of Goods/Services of Utility Tokens 21
G.8 Utility Tokens Redemption 21
G.9 Non-Trading Request 21

G.10 Crypto-Assets Purchase or Sale Modalities 21
G.11 Crypto-Assets Transfer Restrictions 21
G.12 Supply Adjustment Protocols 21
G.13 Supply Adjustment Mechanisms 22
G.14 Token Value Protection Schemes 22
G.15 Token Value Protection Schemes Description 22
G.16 Compensation Schemes 22
G.17 Compensation Schemes Description 22
G.18 Applicable Law 22
G.19 Competent Court 22
H. PART H – INFORMATION ON THE UNDERLYING TECHNOLOGY 22
H.1 Distributed ledger technology 22
H.2 Protocols and Technical Standards 23
H.3 Technology Used 24
H.4 Consensus Mechanism 24
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 25
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 27
J.2 Supplementary information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism 29

01 DATE OF NOTIFICATION

2025-03-13

COMPLIANCE STATEMENTS

02 This crypto-asset white paper has not been approved by any competent authority in any Member State of the European Union. 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 false

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

XRP is a digital asset designed for fast, low-cost cross-border payments and liquidity solutions. It operates on the XRP Ledger (XRPL), a decentralized blockchain that enables secure and efficient transactions through a unique consensus mechanism rather than traditional mining or staking. Unlike Proof-of-Work (PoW) or Proof-of-Stake (PoS) systems, XRPL uses a Federated Consensus Model, where independent validators confirm transactions without requiring energy-intensive computations. XRP holders do not receive ownership rights, governance participation, dividends, or claims against any entity. Once confirmed, XRP transactions are final and irreversible.

The conditions under which rights and obligations may be modified are determined by XRPs development community and validator network. While protocol updates and governance decisions do not require full community consensus like some blockchains, changes to XRPL's functionality involve proposals reviewed and adopted by a majority of trusted validators. These updates may impact network fees, scalability, or transaction finality but do not alter the fundamental ownership rights of XRP holders.

Since XRP is neither an Asset-Referenced Token (ART), an Electronic Money Token (EMT), nor a Utility Token under MiCA, it falls into the category of "Other Crypto-Assets." As a digital asset with an identifiable issuer but no direct claim to financial backing or stable value, XRP is not subject to MiCA's issuance and authorization requirements. However, service providers facilitating XRP-related activities, such as exchanges and custodians, must comply with MiCA's operational, transparency, and consumer protection rules.

09 Not applicable

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

XRP is a digital asset that operates on the XRP Ledger (XRPL) and is widely traded on global markets. As such, there is no centralized entity conducting an offer to the public. LCX does not issue or control the supply of XRP but may facilitate its trading and custody in compliance with MiCA regulations. This whitepaper is a voluntary disclosure to enhance transparency regarding XRP's listing and trading on LCX's platform.

Since XRP is already widely circulated and traded globally, this document does not represent a new issuance, public offering, or token sale but instead provides essential information about its admission to trading on the LCX platform.

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 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 TRADING[1]

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

True

B.2 Name

Ripple Labs Inc.

B.3 Legal Form

Corporation (Inc.)

B.4 Registered Address

251 Little Falls Drive, Wilmington, Delaware 19808, United States

B.5 Head Office

600 Battery Street, San Francisco, California 94111, United States

B.6 Registration Date

September 26, 2013

B.7 Legal Entity Identifier

9845001L01C142EE4094

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

- Brad Garlinghouse – Chief Executive Officer
- David Schwartz – Chief Technology Officer
- Monica Long – President
- Stuart Alderoty – Chief Legal Officer
- Chris Larsen – Executive Chairman

B.11 Business Activity

Ripple Labs Inc. is a technology company that develops and maintains the XRP Ledger, an open-source, decentralized blockchain technology. The company offers enterprise blockchain solutions for global payments, aiming to enable secure, instant, and nearly free cross-border transactions.

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-aligned whitepaper for XRP to enhance transparency, regulatory clarity, and investor confidence. As XRP is classified as an “Other Crypto-Asset” under MiCA Article 4(2), a white paper is not required for its offering or trading. However, LCX is providing this document as part of its commitment to regulatory best practices and transparency.

LCX has applied for authorization as a Crypto-Asset Service Provider (CASP) and is aligning its operations with MiCA requirements while facilitating XRP trading on its platform. This white paper serves to provide clear, standardized information about XRP for users and investors, even though it is not a MiCA requirement.

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 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

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

XRP

D.2 Crypto-Assets Name

XRP

D.3 Abbreviation

XRP

D.4 Crypto-Asset Project Description

XRP is a digital asset designed for fast, low-cost cross-border payments and liquidity management. It operates on the XRP Ledger (XRPL), a decentralized, open-source blockchain that uses a Federated Consensus Mechanism instead of Proof-of-Work (PoW) or Proof-of-Stake (PoS). This allows XRP transactions to settle in 3-5 seconds with minimal fees.

XRP is primarily used for payment settlements, remittances, and liquidity provisioning. Unlike many other blockchains, XRPL does not require mining or staking, making it energy-efficient. Continuous upgrades and improvements to the network are proposed through XRPL Amendments, enabling enhancements in scalability, security, and interoperability.

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

XRP is an open-source digital asset that operates on the XRP Ledger (XRPL), a decentralized blockchain maintained by independent validators, developers, and contributors worldwide. While Ripple Labs initially developed XRP and continues to support the XRPL ecosystem, the network itself is decentralized, with governance and improvements managed through a voting system among validators.

Full Name	Business Address	Function
Ripple Labs	Global	XRPL Development & Ecosystem Support
XRPL Foundation	Global	Network Stewardship & Research
XRPL Developers	Global	Software Development & Maintenance
XRPL Validators	Global	Transaction Validation & Consensus
XRPL Node Operators	Global	Network Verification & Security

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

As of March 2025, approximately 55.47 billion XRP are in circulation, with a fixed maximum supply of 100 billion XRP. The circulating supply fluctuates due to scheduled escrow releases, network transaction fees (burn mechanism), and institutional distributions, impacting market availability over time.

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

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

LCX Exchange also provides access to XRP trading with several pairs. Investors can access XRP through LCX.com, the official LCX exchange, as well as other supported cryptocurrency trading platforms. To trade XRP, 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

Not applicable – As XRP is a decentralized, open-source crypto-asset with no central issuer or governing entity, it does not fall under the jurisdiction of any specific legal framework. However, the XRP Ledger (XRPL) operates globally, and the regulatory treatment of XRP may vary depending on the jurisdiction and applicable financial laws governing crypto-assets.

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

XRP is a decentralized digital asset that powers the XRP Ledger (XRPL). It is primarily used for fast, low-cost cross-border payments, liquidity management, and financial settlements. XRP serves as a bridge currency for remittances and institutional transactions, enabling near-instant value transfers without the need for intermediaries. Unlike Proof-of-Stake (PoS) systems, XRP does not require staking, as XRPL operates on a Federated Consensus Mechanism to validate transactions efficiently.

XRP does not qualify as a utility token under Article 3(5) of MiCA, as it does not grant access to goods or services provided by the issuer or a third party. Instead, XRP functions primarily as a settlement asset within the XRP Ledger for cross-border payments and liquidity operations. It does not confer consumption-based rights or access features required to meet the utility token definition.

F.3 Planned Application of Functionalities

XRP is a fully operational crypto-asset with established functionality. It is primarily used for cross-border payments, liquidity management, and financial settlements on the XRP Ledger (XRPL). XRP facilitates fast, low-cost transactions and serves as a bridge currency for remittances and institutional payments. Its functionality remains active and continues to evolve through XRPL Amendments, which introduce network upgrades to enhance scalability, security, and interoperability.

F.4 Type of white paper

OTHR

F.5 The type of submission

NEWT

F.6 Crypto-Asset Characteristics

XRP is a decentralized digital asset designed for fast and efficient cross-border payments. It operates on the XRP Ledger (XRPL), a high-speed, open-source blockchain that enables near-instant transactions with minimal fees. Unlike Proof-of-Work (PoW) or Proof-of-Stake (PoS) blockchains, XRPL uses a Federated Consensus Mechanism, allowing transactions to settle in 3-5 seconds without requiring energy-intensive mining or staking.

XRP serves as a bridge currency for financial institutions, liquidity providers, and payment processors, facilitating seamless value transfers across different currencies and payment networks. The total supply of XRP is capped at 100 billion tokens, with the circulating supply gradually increasing through scheduled escrow releases.

Under the Markets in Crypto-Assets Regulation (MiCA), XRP is classified as an “Other Crypto-Asset” (OTHR) since it does not fall under the definitions of an Asset-Referenced Token (ART) or an Electronic Money Token (EMT).

F.7 Commercial name or trading name

XRP

F.8 Website of the issuer

Not applicable

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

2025-01-01

F.10 Publication date

2025-04-02

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

L6GTZC9G4

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 XRP do not acquire contractual rights or obligations from an issuer, as XRP is a decentralized digital asset with no central governing entity. Ownership of XRP grants the right to store, transfer, and use it within the XRP Ledger (XRPL), subject to the network's consensus rules and cryptographic security mechanisms. Users are solely responsible for managing their private keys and ensuring compliance with applicable laws and regulations when transacting with XRP.

G.2 Exercise of Rights and Obligation

Since XRP is a decentralized digital asset with no central issuer, there are no contractual rights or obligations to exercise. The use and transfer of XRP are governed by the XRP Ledger (XRPL) consensus rules and executed through network transactions validated by independent validators. Users control their XRP holdings by managing their private keys and can transact freely within the network, subject to transaction fees and network confirmation times. Compliance with applicable laws and regulations remains the sole responsibility of the user.

G.3 Conditions for Modifications of Rights and Obligations

XRP's protocol and functionalities are determined by network consensus and cannot be unilaterally modified by any single entity. Changes to the XRP Ledger (XRPL) require broad agreement among stakeholders, including validators, developers, and network participants, and are implemented through XRPL Amendments. These amendments must reach an 80% consensus among trusted validators before being activated.

However, legal and regulatory obligations affecting XRP and its use may change depending on jurisdiction, and users are responsible for ensuring compliance with relevant laws.

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

XRP has a fixed maximum supply of 100 billion tokens, with no new tokens being created since it was fully pre-mined at launch. The circulating supply is dynamically adjusted through escrow releases and a burn mechanism. A portion of XRP is periodically released from escrow accounts managed by

Ripple Labs, with any unused tokens returned to escrow to extend future distributions. Additionally, a small amount of XRP is permanently destroyed (burned) as a transaction fee for each network operation, gradually reducing the total supply over time. These mechanisms regulate XRP's market availability while ensuring network efficiency and security.

G.13 Supply Adjustment Mechanisms

XRP's supply is adjusted through scheduled escrow releases and a deflationary burn mechanism. Ripple Labs manages an escrow system that periodically unlocks XRP for market distribution, with any unused tokens returned to escrow for future release. Additionally, a small amount of XRP is permanently burned as a transaction fee for each network operation, gradually reducing the total supply over time. Changes to supply mechanisms require network consensus and approval through XRPL Amendments, ensuring decentralized governance of XRP's economic model.

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

Not applicable – As XRP is a decentralized, open-source crypto-asset with no central issuer or governing entity, it does not fall under the jurisdiction of any specific legal framework. However, the XRP Ledger (XRPL) operates globally, and regulatory treatment of XRP may vary across jurisdictions based on applicable financial and securities laws.

Although XRP is decentralized and not governed by a central issuer, LCX AG's provision of XRP trading services falls under Regulation (EU) 2023/1114 (MiCA) and the Liechtenstein TVTG framework. LCX is responsible for ensuring compliance with market integrity, AML/CFT, and investor protection standards when facilitating XRP transactions on its platform.

G.19 Competent Court

Not applicable – As XRP is a decentralized, open-source crypto-asset with no central issuer or governing entity, it does not fall under the jurisdiction of any specific legal framework.

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.

H. PART H – INFORMATION ON THE UNDERLYING TECHNOLOGY

H.1 Distributed ledger technology

XRP operates on the XRP Ledger (XRPL), a decentralized, public blockchain designed for fast, efficient, and low-cost transactions. Unlike Proof-of-Work (PoW) or Proof-of-Stake (PoS) blockchains, XRPL uses a Federated Consensus Mechanism, allowing transactions to be confirmed in 3-5 seconds with minimal energy consumption. The network is maintained by a globally distributed set of independent validators, ensuring decentralization and security without the need for mining or staking.

XRPL is optimized for cross-border payments, liquidity management, and financial settlements, offering built-in features such as a decentralized exchange (DEX), token issuance, and native transaction capabilities. The consensus protocol ensures fast finality, low transaction costs, and resilience against attacks, as no single entity controls the network. Governance and upgrades follow the XRPL Amendment process, where validators vote on proposed changes, requiring an 80% consensus over two weeks before activation.

Recent and upcoming developments include expanded NFT functionality, an Automated Market Maker (AMM) for improved liquidity, and interoperability solutions for sidechains. As a highly energy-efficient blockchain with built-in financial tools, XRPL continues to evolve through community-driven improvements.

For further information:

- **XRPL Whitepaper:** https://xrpl.org/whitepaper.html
- **XRPL Explorer:** https://xrpscan.com
- **XRPL Main Repository:** https://github.com/XRPLF
- **XRPL Developer Portal:** https://xrpl.org

H.2 Protocols and Technical Standards

XRP operates on the XRP Ledger (XRPL), a decentralized, peer-to-peer (P2P) blockchain designed for fast, low-cost financial transactions. Unlike traditional blockchains, XRPL does not rely on Proof-of-Work (PoW) or Proof-of-Stake (PoS) but instead uses a Federated Consensus Mechanism, allowing transactions to settle in 3-5 seconds without mining or staking.

Consensus Mechanism – Federated Consensus

XRPL uses a Federated Consensus Model where transactions are validated by a trusted set of independent validators rather than miners or stakers. This system enables:

- Finality within seconds, ensuring quick and efficient transactions.
- No financial incentives for validators, reducing the risk of centralization.
- Security against Sybil attacks, as malicious validators cannot manipulate consensus.

Validators propose transactions in a round-based voting process, ensuring that only valid and agreed-upon transactions are added to the ledger.

XRPL Amendments & Protocol Upgrades

XRPL evolves through a decentralized governance process, where upgrades are proposed through XRPL Amendments. These amendments must gain 80% validator approval for two consecutive weeks before activation. Recent and upcoming upgrades include:

- XLS-20: Native support for NFTs on XRPL.
- XLS-30: Introduction of an Automated Market Maker (AMM) for liquidity optimization.

- Hooks: A smart contract-like functionality enabling on-chain programmability.

Transaction and Address Standards

XRPL supports multiple transaction types and address formats, including:

- Regular Accounts: Controlled by private keys for sending and receiving XRP.
- Multi-Signature Accounts: Require multiple signers for enhanced security.
- Escrow & Payment Channels: Allow time-locked transactions and off-chain scaling.

Interoperability and Data Standards

XRPL is designed for seamless integration with financial institutions and other blockchains, featuring:

- XRP as a bridge currency, enabling cross-border payments.
- Issued Currencies (IOUs), allowing institutions to tokenize assets on XRPL.
- XRPL Sidechains, providing interoperability with private and public blockchains.

Security & Cryptography Standards

XRPL employs SHA-512Half hashing for transaction security and Elliptic Curve Digital Signature Algorithm (ECDSA) for cryptographic protection. It also supports Ed25519 keys for enhanced security and efficiency.

H.3 Technology Used

XRP Ledger (XRPL) is a high-performance, decentralized blockchain designed for payments and financial transactions, operating on a Federated Consensus Mechanism that enables quick finality without mining or staking. The network offers a range of tools and technologies for developers and users, including non-custodial wallets like XUMM and hardware wallets such as Ledger and Trezor for secure XRP storage and transactions. Interoperability tools, such as bridges and sidechains, enhance connectivity with other blockchains, while XRPL APIs and SDKs, including xrpl.js, allow developers to interact seamlessly with the ledger. With its efficiency, low transaction costs, and built-in financial tools, XRPL is a leading blockchain solution for banks, payment providers, and remittance services, facilitating fast, scalable, and cost-effective cross-border payments.

H.4 Consensus Mechanism

XRP Ledger operates on a Federated Consensus Mechanism, offering a fast, scalable, and energy-efficient alternative to Proof-of-Work and Proof-of-Stake models. Independent validators confirm transactions by voting on the most recent valid ledger, ensuring quick and reliable transaction processing. Unlike other consensus mechanisms, validators receive no financial incentives, which enhances decentralization and reduces the risk of manipulation. Transactions achieve finality within 3-5 seconds, eliminating the need for lengthy confirmations. This model enables high-speed settlement, minimal transaction costs, and robust security, making XRPL an ideal solution for global financial applications and cross-border payments.

H.5 Incentive Mechanisms and Applicable Fees

Unlike PoW and PoS blockchains, XRP Ledger does not rely on staking rewards or mining incentives. Instead, its incentive model is based on low transaction fees and deflationary mechanisms, ensuring cost efficiency and sustainability. Transaction fees are minimal, typically fractions of a cent, making transactions are highly affordable. A portion of every transaction fee is permanently burned, gradually reducing the total XRP supply over time. With no block rewards, XRPL prevents inflation while maintaining a sustainable token economy. This fee model enhances network security, prevents spam transactions, and steadily decreases XRP's circulating supply, reinforcing its long-term value proposition.

H.6 Use of Distributed Ledger Technology

True

H.7 DLT Functionality Description[2]

XRP utilizes the XRP Ledger (XRPL), a decentralized and open-source distributed ledger technology that relies on the Ripple Protocol Consensus Algorithm (RPCA) instead of traditional proof-of-work or proof-of-stake systems. This consensus mechanism enables fast and energy-efficient transaction validation, achieving finality within 3–5 seconds without mining. The ledger supports features such as native token transfers, decentralized exchange, and token issuance, making it suitable for enterprise-grade financial applications. Validators are globally distributed and reach consensus through a Unique Node List (UNL), ensuring security, scalability, and high throughput across the network.

H.8 Audit

True

H.9 Audit Outcome[3]

The XRP Ledger (XRPL) has undergone multiple independent security audits to ensure the robustness and reliability of its infrastructure. In December 2024, Softstack GmbH completed a comprehensive audit of Ripple's Multi-Purpose Token (MPT) standard on the XRPL. The assessment revealed no critical, high, or medium-severity vulnerabilities, identifying only two low-risk issues and two informational findings, all of which were addressed with practical recommendations.

Earlier, in July 2023, CertiK conducted an extensive security audit of the XLS-30d Automated Market Maker (AMM) implementation on the XRPL. The audit confirmed the absence of critical or major vulnerabilities, with all identified issues being resolved or acknowledged.

Additionally, the Hooks amendment, aimed at introducing smart contract functionalities to the XRPL, was audited by FYEO in June 2023. The audit found no serious or severe security issues, with minor and moderate issues promptly resolved.

These audits collectively underscore Ripple's commitment to maintaining high security standards and advancing the XRPL's capabilities in tokenization and decentralized finance.
Here is the link to the audit report of XRP:

https://softstack.io/case-study/xrp-ledger-security-audit-of-ripples-mpt/

[2] **[19-04-2025]** An explanation regarding DLT Functionality of XRPL added in Sub-Part H.7.

[3] **[19-04-2025]** Information about the Audit Outcome of XRPL added in Sub-Part H.9.

I. PART I – INFORMATION ON RISKS

I.1 Offer-Related Risks

The admission to trading of XRP carries risks related to market volatility, regulatory uncertainties, and trading conditions. While XRP is widely used for cross-border payments and financial transactions, its price can be highly volatile due to factors such as market sentiment, macroeconomic trends, institutional adoption, and speculative activity.

Although XRP generally has high liquidity, market conditions may change, and external events such as regulatory developments, exchange delistings, or broader financial instability could impact trading. Additionally, evolving legal and compliance frameworks may impose new restrictions on XRP trading or its use in financial applications, potentially affecting market accessibility in certain jurisdictions.

I.2 Issuer-Related Risks

XRP does not have a central issuer, as it operates on a decentralized, permissionless blockchain maintained by independent validators, developers, and node operators. As a result, many issuer-specific risks, such as financial stability, operational risks, or conflicts of interest, do not apply. However, the XRP ecosystem is subject to certain risks, including regulatory and legal uncertainty, as different jurisdictions may impose restrictions on exchanges, custodians, and financial institutions offering access to XRP. Network governance and protocol risks also exist, as XRP Ledger follows a decentralized governance model, where changes must be approved through XRPL Amendments with an 80% validator consensus for two weeks. While this ensures stability, governance disagreements, protocol delays, or potential forks could create uncertainty. Additionally, validator and network centralization risks may arise if too much validation power is concentrated among a few entities, potentially impacting decentralization and security. Although XRPL is highly secure and efficient, it has limited programmability compared to smart contract-enabled blockchains, though upcoming upgrades like Hooks aim to expand its functionality. Future advancements in cryptographic technologies, such as quantum computing, may also introduce potential risks to XRPL's security model.

I.3 Crypto-Assets-Related Risks

XRP is a decentralized digital asset with no central issuer, reducing risks associated with centrally controlled crypto-assets. However, XRP carries specific risks, including market risk, as its price is highly volatile and influenced by macroeconomic factors, regulatory developments, and market sentiment, leading to potential gains or losses. Liquidity risk exists despite XRP's deep liquidity across multiple exchanges, as extreme market conditions or regulatory actions could impact trading volumes and accessibility. Custodial and self-custody risks require users to securely manage private keys, as loss of access results in permanent asset loss, while storing XRP on centralized platforms introduces counterparty risks such as exchange insolvency, hacks, or regulatory intervention. Regulatory and taxation risks vary across jurisdictions, with evolving compliance requirements potentially affecting XRP's use in financial services and cross-border payments. Network security and governance risks stem from XRPL's Federated Consensus Mechanism, where validator centralization or governance disagreements over protocol upgrades could impact the network's decentralization and decision-making process. While XRPL does not support complex smart contracts, upcoming upgrades like Hooks aim to introduce programmability, which could introduce protocol risks if not properly audited. Additionally, quantum computing threats pose long-term risks to cryptographic security, potentially affecting key management and transaction signing mechanisms. Despite these risks, XRP remains a widely used digital asset for financial institutions, payment providers, and remittance services, with fast transaction speeds, low costs, and ongoing network enhancements strengthening its role in the global payments ecosystem.

I.4 Project Implementation-Related Risks

XRP, as a decentralized and open-source blockchain, has no central issuer, but certain risks affect its development and adoption. Protocol upgrades and governance rely on the XRPL Amendment

process, requiring an 80% validator consensus for two weeks, which can lead to delays or disagreements among network participants. Scalability challenges may emerge as transaction volumes increase, though XRPL's high throughput and low fees mitigate congestion risks. Regulatory uncertainty varies across jurisdictions, potentially impacting XRP's role in cross-border payments, financial services, and institutional adoption. Validator centralization risks could arise if a small number of entities dominate the validator network, affecting decentralization and security. Security threats, while lower than in smart contract-based platforms, include potential bugs, network vulnerabilities, and evolving attack vectors. Quantum computing risks could pose future challenges to XRPL's cryptographic security, necessitating advancements in encryption methods. Market volatility remains a key risk, impacting XRP's liquidity and investor confidence. Despite these challenges, XRP continues to evolve, with ongoing network enhancements, institutional adoption, and expanding financial use cases strengthening its role in the digital payments ecosystem.

I.5 Technology-Related Risks

XRP operates on a decentralized blockchain using a Federated Consensus Mechanism, ensuring fast, low-cost transactions without mining or staking. However, several technology-related risks remain. Private key management is crucial, as the loss or theft of private keys results in permanent loss of funds. While XRPL does not support smart contracts in the traditional sense, upcoming features like Hooks introduce programmability risks, where flawed implementations could impact network operations. Network congestion, though less common on XRPL, could arise with increased adoption, potentially affecting transaction processing speeds.

XRPL's consensus model mitigates 51% attacks, but validator centralization risks could emerge if a small number of entities dominate validation, impacting decentralization. Protocol upgrades and governance follow the XRPL Amendment process, requiring 80% validator approval for two weeks, which may delay critical updates or lead to governance disputes. Security risks include potential bugs in protocol updates, evolving attack vectors, and the long-term challenge of quantum computing threats to cryptographic security.

Additionally, while XRPL transactions are efficient and transparent, they are public and pseudonymous, making them subject to blockchain analysis, which could impact privacy and regulatory compliance. Dependence on third-party services, such as centralized exchanges and custodians, introduces counterparty risks, including hacks, insolvency, and regulatory restrictions. Despite these challenges, XRPL continues to evolve, with ongoing improvements in governance, interoperability, and scalability, ensuring its role as a leading blockchain for cross-border payments and financial transactions.

I.6 Mitigation Measures

XRP minimizes technology and operational risks through its efficient consensus mechanism, built-in security measures, and ongoing network enhancements. Its Federated Consensus Mechanism eliminates the need for mining or staking, ensuring low energy consumption and fast transaction finality. Scalability risks are mitigated by XRPL's high throughput and low-cost transaction model, with ongoing protocol upgrades improving efficiency.

Network security is strengthened through validator diversity, cryptographic safeguards, and continuous monitoring of vulnerabilities. While XRPL does not natively support smart contracts, upcoming features like Hooks undergo rigorous testing to prevent protocol-level risks. Governance risks are addressed through the XRPL Amendment process, which ensures broad validator consensus before implementing upgrades.

To protect against quantum computing threats, cryptographic research is ongoing to explore advanced encryption methods. Additionally, users can enhance security by adopting best practices for private key management, multi-signature wallets, and secure custody solutions. Regulatory compliance measures, including enhanced transparency and institutional engagement, further support XRP's adoption in the global financial ecosystem while maintaining network integrity and decentralization.

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 Mandatory information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism

XRP Ledger (XRPL) is highly energy-efficient, operating on a Federated Consensus Mechanism that eliminates the need for mining or staking, drastically reducing energy consumption compared to Proof-of-Work (PoW) and Proof-of-Stake (PoS) blockchains. Transactions achieve finality in 3-5 seconds, requiring minimal computational power.

The total annual energy consumption of XRPL is 300,181.23511 kWh, with 18.21% sourced from renewable energy. Scope 2 emissions total 100.59130 tCO_2e per year, while the energy intensity per transaction is 0.00001 kWh, and GHG intensity per transaction is 0.00001 $kgCO_2e$.

XRPL's low energy footprint is maintained through its lightweight validation process and optimized node operations. Its deflationary transaction fee model further enhances efficiency, preventing spam transactions while ensuring sustainability and long-term network security. Additionally, continued improvements in node software, hardware efficiency, and renewable energy adoption among validators further reduce its environmental impact.

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	XRP
S.4 Consensus Mechanism The consensus mechanism, as reported in field H.4	XRP Ledger operates on a Federated Consensus Mechanism, offering a fast, scalable, and energy-efficient alternative to Proof-of-Work and Proof-of-Stake models. Independent validators confirm transactions by voting on the most recent valid ledger, ensuring quick and reliable transaction processing. Unlike other consensus mechanisms, validators receive no financial incentives, which enhances decentralization and reduces the risk of manipulation. Transactions achieve finality within 3-5 seconds, eliminating the need for lengthy confirmations. This model enables high-speed settlement, minimal transaction costs, and robust security, making XRPL an ideal solution for global financial applications and cross-border payments.
S.5 Incentive Mechanisms and Applicable Fees	XRP Ledger (XRPL) operates on a Federated Consensus Mechanism, which does not rely on staking rewards or mining incentives. Instead,

Incentive mechanisms to secure transactions and any fees applicable, as reported in field H.5	XRPL's low transaction fees and deflationary model ensure network efficiency. Transaction fees are minimal, typically fractions of a cent, making payments cost-effective. A portion of each transaction fee is permanently burned, gradually reducing the total XRP supply over time. Unlike Proof-of-Stake (PoS) or Proof-of-Work (PoW) blockchains, validators do not receive financial rewards, ensuring decentralization and preventing inflation. XRPL's efficient fee model enhances network security, prevents spam transactions, and maintains a sustainable token economy.
S.6 Beginning of the period to which the disclosure relates	2024-03-05
S.7 End of the period to which the disclosure relates	2025-03-05
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	300181.23511 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	The energy consumption of this asset is aggregated across multiple components: 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 regulary, based on data of the Digital Token Identifier Foundation. To determine the energy consumption of a token, the energy consumption of the network(s) binance_smart_chain, klaytn 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.

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

Supplementary key indicators on energy and GHG emissions	
S.10 Renewable energy consumption Share of energy used generated from renewable sources, expressed as a percentage of the total amount of energy used per calendar year, for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions.	18.21% of the network's energy use comes from renewable sources.
S.11 Energy intensity Average amount of energy used per validated transaction	0.00001 kWh per transaction
S.12 Scope 1 DLT GHG emissions – Controlled Scope 1 GHG emissions per calendar year for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions	0.00 tCO2e per year
S.13 Scope 2 DLT GHG emissions – Purchased Scope 2 GHG emissions, expressed in tCO2e per calendar year for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions	100.59130 tCO2e per year
S.14 GHG intensity Average GHG emissions (scope 1 and scope 2) per validated transaction	0.00001 kgCO2e per transaction
Sources and methodologies	
S.15 Key energy sources and methodologies Sources and methodologies used in relation to the information reported in fields S.10 and S.11	To determine the proportion of renewable energy usage, the locations of the nodes are to be determined using public information sites, open-source crawlers and crawlers developed in-house. If no information is available on the geographic distribution of the nodes, reference networks are used which are comparable in terms of their incentivization structure and consensus mechanism. This geo-information is merged with public information from the European Environment Agency (EEA) and thus determined.
S.16 Key GHG sources and methodologies	To determine the GHG Emissions, the locations of the nodes are to be determined using public information sites, open-source crawlers and crawlers developed in-house. If no information is

Sources and methodologies used in relation to the information reported in fields S.12, S.13 and S.14	available on the geographic distribution of the nodes, reference networks are used which are comparable in terms of their incentivization structure and consensus mechanism. This geo-information is merged with public information from the European Environment Agency (EEA) and thus determined.