CRYPTO RISK METRICS
DON'T TRUST. VERIFY.

White paper drafted under the European Markets in Crypto-Assets Regulation (EU) 2023/1114 for FFG 1HZHK551M

Preamble

00. Table of Contents

01. Date of notification

2025-09-02

02. Statement in accordance with Article 6(3) of Regulation (EU) 2023/1114

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 of the crypto-asset is solely responsible for the content of this crypto-asset white paper.

03. Compliance statement in accordance with Article 6(6) of Regulation (EU) 2023/1114

This crypto-asset white paper complies with Title II of Regulation (EU) 2023/1114 of the European Parliament and of the Council 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. Statement in accordance with Article 6(5), points (a), (b), (c), of Regulation (EU) 2023/1114

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

05. Statement in accordance with Article 6(5), point (d), of Regulation (EU) 2023/1114

Since the token has multiple functions (hybrid token), these are already conceptually not utility tokens within the meaning of the MiCAR within the definition of Article 3, 1. (9), due to the necessity “exclusively” being intended to provide access to a good or a service supplied by its issuer only.

06. Statement in accordance with Article 6(5), points (e) and (f), of Regulation (EU) 2023/1114

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 or the deposit guarantee schemes under Directive 2014/49/EU of the European Parliament and of the Council.

Summary

07. Warning in accordance with Article 6(7), second subparagraph, of Regulation (EU) 2023/1114

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 or any other offer document pursuant to union or national law.

08. Characteristics of the crypto-asset

The DYDX tokens referred to in this white paper are crypto-assets other than EMTs and ARTs, and are issued on the DYDX and Osmosis network (2025-08-25 and according to DTI FFG shown in F.14).

The initial production of the 1,000,000,000 tokens on DYDX (the so-called "mint") took place on October 26, 2023. (see https://www.mintscan.io/dydx/block/1, accessed 2025-08-25).

09. Information about the quality and quantity of goods or services to which the utility tokens give access and restrictions on the transferability

Not applicable.

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

Crypto Risk Metrics GmbH is seeking admission to trading on any Crypto Asset Service Provider platform in the European Union in accordance to Article 5 of REGULATION (EU) 2023/1114 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 May 2023 on markets in crypto-assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937. In accordance to Article 5(4), this crypto-asset white paper may be used by entities admitting the token to trading after Crypto Risk Metrics GmbH as the person responsible for drawing up such white paper has given its consent to its use in writing to the repective Crypto Asset Service Provider. If a CASP wishes to use this white paper, inquiries can be made under info@crypto-risk-metrics.com.

Part A – Information about the offeror or the person seeking admission to trading

A.1 Name

Crypto Risk Metrics GmbH

A.2 Legal form

2HBR

A.3 Registered address

DE, Lange Reihe 73, 20099 Hamburg, Germany

A.4 Head office

Not applicable.

A.5 Registration date

2018-12-03

A.6 Legal entity identifier

39120077M9TG0O1FE242

A.7 Another identifier required pursuant to applicable national law

Crypto Risk Metrics GmbH is registered with the commercial register in the the city of Hamburg, Germany, under number HRB 154488.

A.8 Contact telephone number

+4915144974120

A.9 E-mail address

info@crypto-risk-metrics.com

A.10 Response time (Days)

030

A.11 Parent company

Not applicable.

A.12 Members of the management body

Name	Position	Address
Tim Zölitz	Chairman	Lange Reihe 73, 20099 Hamburg, Germany

A.13 Business activity

Crypto Risk Metrics GmbH is a technical service provider, who supports regulated entities in the fulfillment of their regulatory requirements. In this regard, Crypto Risk Metrics

GmbH acts as a data-provider for ESG-data according to article 66 (5). Due to the regulations laid out in article 5 (4) of the REGULATION (EU) 2023/1114 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 May 2023 on markets in crypto-assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937, Crypto Risk Metrics GmbH aims at providing central services for crypto-asset white papers in order to minimize market confusion due to conflicting white papers for the same asset.

A.14 Parent company business activity

Not applicable.

A.15 Newly established

Crypto Risk Metrics GmbH has been etablished since 2018 and is therefore not newly established (i. e. older than three years).

A.16 Financial condition for the past three years

Crypto Risk Metrics GmbH's profit after tax for the last three financial years are as follows:

2024 (unaudited): negative 50.891,81 EUR

2023 (unaudited): negative 27.665,32 EUR

2022: 104.283,00 EUR.

As 2023 and 2024 were the years building Software for the MiCAR-Regulation which was not yet in place, revenue streams from these investments are expeted to be generated in 2025.

A.17 Financial condition since registration

This point would only be applicable if the company were newly established and the financial conditions for the past three years had not been provided in the bulletpoint before.

Part B – Information about the issuer, if different from the offeror or person seeking admission to trading

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

Yes

B.2 Name

The DYDX token was created in a decentralized manner, without the involvement of a formally identifiable issuer. All tokens were generated at the genesis block of the DYDX Chain, which was produced in October 2023 through the participation of validating nodes in a permissionless and decentralized process. As such, there is no single legal or natural person that can be regarded as the issuer of the token in a formal sense. The dYdX Foundation plays an important role in supporting the continued development and coordination of the ecosystem, including governance participation, education, and community initiatives. However, the Foundation expressly states that it is not the issuer of the token. Its role is limited to facilitating the growth and stability of the broader network and protocol rather than exercising issuer-like control over the token or its supply (see: https://www.dydx.foundation/blog/dydx-mica-whitepaper, accessed 2025-08-28).

B.3 Legal form

Not applicable.

B.4. Registered address

Not applicable.

B.5 Head office

Not applicable.

B.6 Registration date

Not applicable.

B.7 Legal entity identifier

Not applicable.

B.8 Another identifier required pursuant to applicable national law

Not applicable.

B.9 Parent company

Not applicable.

B.10 Members of the management body

Not applicable.

B.11 Business activity

Not applicable.

B.12 Parent company business activity

Not applicable.

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

Not applicable.

C.2 Legal form

Not applicable.

C.3 Registered address

Not applicable.

C.4 Head office

Not applicable.

C.5 Registration date

Not applicable.

C.6 Legal entity identifier

Not applicable.

C.7 Another identifier required pursuant to applicable national law

Not applicable.

C.8 Parent company

Not applicable.

C.9 Reason for crypto-Asset white paper Preparation

Not applicable.

C.10 Members of the Management body

Not applicable.

C.11 Operator business activity

Not applicable.

C.12 Parent company business activity

Not applicable.

C.13 Other persons drawing up the crypto-asset white paper according to Article 6(1), second subparagraph, of Regulation (EU) 2023/1114

Not applicable.

C.14 Reason for drawing the white paper by persons referred to in Article 6(1), second subparagraph, of Regulation (EU) 2023/1114

Not applicable.

Part D – Information about the crypto-asset project

D.1 Crypto-asset project name

Long Name: DYDX, Short Name: DYDX according to the Digital Token Identifier Foundation (www.dtif.org, DTI see F.13, FFG DTI see F.14 as of 2025-09-02).

D.2 Crypto-assets name

See F.13.

D.3 Abbreviation

See F.13.

D.4 Crypto-asset project description

The dYdX Network is presented as a Layer 1 blockchain, developed using the Cosmos SDK and the CometBFT consensus mechanism. The crypto-asset in scope is the native token of that Network.

It has been designed with the intention to enable decentralised perpetual futures trading through an off-chain order book and matching system maintained by validators. These validators are responsible for storing and updating orders in a shared in-memory environment, thereby supporting the functioning of the trading process.

Consensus within the Network is intended to be achieved through a delegated Proof-of-Stake mechanism, where validators ranked by the level of stake are in charge of proposing blocks and validating transactions. Token holders may delegate their stake to validators, which contributes to the security of the Network and determines validator participation. Alongside the consensus mechanism, the architecture foresees supporting components such as indexers for real-time data provision and front-end interfaces that allow interaction with the Network.

The Network also integrates an on-chain governance framework, where staked tokens are used to participate in decisions on matters such as protocol parameters, treasury allocation, or potential software upgrades. This governance process is complemented by substructures designed to focus on specific operational areas, such as grants, operations,

or treasury management. The implementation of these elements reflects an intended structure for decentralised participation and long-term protocol coordination, though their effectiveness is dependent on the continued engagement of stakeholders and the underlying technical environment.

The token is also available on Osmosis.

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

Name	Role	Business Address
Antonio Juliano	Founder & CEO, dYdX Trading Inc.	44 Montgomery St Ste 2310, San Francisco, California, USA
Charles d'Haussy	CEO, dYdX Foundation	Zug, Switzerland
Arthur Cheong	Council Member, dYdX Foundation	Zug, Switzerland
Rebecca Rettig	Council Member, dYdX Foundation	Zug, Switzerland
Markus Spillman	Council Member, dYdX Foundation	Zug, Switzerland
David Gogel	COO, dYdX Trading Inc.	44 Montgomery St Ste 2310, San Francisco, California, USA
Mega Septiandara	Governance Lead, dYdX Foundation	Zug, Switzerland

dYdX Trading Inc.	Original developer of open-source software behind the Protocol	44 Montgomery St Ste 2310, San Francisco, California, USA
dYdX Foundation	Supports growth and development of the Protocol and ecosystem	Gubelstrasse 11, 6300 Zug, Switzerland
dYdX Grants Trust	Administers Ecosystem Development Program through grants	Guernsey
Digital Operations Foundation	Supports Network functionality by operating infrastructure	Cayman Islands
dYdX Treasury subDAO	Manages community-allocated funds for ecosystem sustainability	Cayman Islands

D.6 Utility Token Classification

The token does not classify as a utility token.

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

Not applicable.

D.8 Plans for the token

The development of the dYdX token has followed several key milestones. The project was first introduced on Ethereum in 2021, initially through a ZK-rollup layer and later with the launch of the ethDYDX governance token. In 2022, work began on the fourth version of the protocol, which led to the creation of the dYdX Chain and the issuance of the DYDX token as its staking and governance token. Following the halt of the previous version in 2024, the chain became the sole active deployment of the protocol. In late 2024,

governance decisions included the discontinuation of the wethDYDX bridge contract as of June 2025, thereby closing the migration path from ethDYDX to DYDX. Based on the official disclosures of the dYdX Foundation (https://www.dydx.foundation/blog/dydx-mica-whitepaper, accessed 2025-08-28), there are currently no further plans for the token beyond the existing framework. Past roadmap points are not necessarily implemented. Changes and developments can negatively impact the investors.

D.9 Resource allocation

According to the official documentation, there is currently no formally determined or publicly communicated allocation of DYDX tokens across specific groups such as investors, team members, or advisors. All tokens were created at the genesis of the dYdX Chain, and their distribution is the result of the initial genesis participation, subsequent on-chain activity, and market transactions.

At the same time, the community has adopted a revenue distribution framework intended to promote the long-term sustainability of the protocol (https://www.dydx.xyz/blog/dydx-buyback-program, accessed 2025-08-26).

The temporary token distribution can be traced on-chain: https://www.mintscan.io/dydx/assets/adydx?sector=holders. Community and project related vaults can also be traced here: https://www.mintscan.io/dydx/treasury.

The investor must be aware that a public address cannot necessarily be assigned to a single person or entity, which limits the ability to determine exact economic influence or future actions. Token distribution changes can negatively impact the investor.

D.10 Planned use of Collected funds or crypto-Assets

Not applicable, as this white paper was drawn up for the admission to trading and not for collecting funds for the crypto-asset-project.

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

The white paper concerns the admission to trading (i. e. ATTR) on any Crypto Asset Service Providers platform that has obtained the written consent of Crypto Risk Metrics GmbH as the person drafting this white paper.

E.2 Reasons for public offer or admission to trading

As already stated in A.13, Crypto Risk Metrics GmbH aims to provide central services to draw up crypto-asset white papers in accordance to COMMISSION IMPLEMENTING REGULATION (EU) 2024/2984. These services are offered in order to minimize market confusion due to conflicting white papers for the same asset drawn up from different Crypto Asset Service Providers. As of now, such a scenario seems highly likely as a Crypto Asset Service Provider who drew up a crypto-asset white paper and admitted the respective token in the Union has no incentive to give his written consent to another Crypto Asset Service Provider according to Article 5 (4 b) of the REGULATION (EU) 2023/1114 to use the white paper for his regulatory obligations, as this would 1. strenghthen the market-positioning of the other Crypto Asset Service Provider (who is most likely a competitor) and 2. also entail liability risks.

E.3 Fundraising target

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.4 Minimum subscription goals

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.5 Maximum subscription goals

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.6 Oversubscription acceptance

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.7 Oversubscription allocation

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.8 Issue price

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.9 Official currency or any other crypto-assets determining the issue price

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.10 Subscription fee

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.11 Offer price determination method

Once the token is admitted to trading its price will be determined by demand (buyers) and supply (sellers).

E.12 Total number of offered/traded crypto-assets

The total number of DYDX tokens was fixed at 1,000,000,000 units, all of which were minted at the genesis of the DYDX Chain. According to the official documentation, there are no automatic supply adjustment mechanisms in place. However, the total supply could be modified through governance decisions adopted by token stakers and validators. In addition, certain governance-related processes, such as deposits for proposals that fail to meet thresholds, may result in small amounts of tokens being burned. These factors mean that the circulating and effective supply could vary over time depending on governance outcomes

E.13 Targeted holders

ALL

E.14 Holder restrictions

The Holder restrictions are subject to the rules applicable to the Crypto Asset Service Provider as well as additional restrictions the Crypto Asset Service Providers might set in force.

E.15 Reimbursement notice

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.16 Refund mechanism

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.17 Refund timeline

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.18 Offer phases

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.19 Early purchase discount

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.20 Time-limited offer

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.21 Subscription period beginning

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.22 Subscription period end

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.23 Safeguarding arrangements for offered funds/crypto- Assets

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.24 Payment methods for crypto-asset purchase

The payment methods are subject to the respective capabilities of the Crypto Asset Service Provider listing the crypto-asset.

E.25 Value transfer methods for reimbursement

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.26 Right of withdrawal

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.27 Transfer of purchased crypto-assets

The transfer of purchased crypto-assets are subject to the respective capabilities of the Crypto Asset Service Provider listing the crypto-asset.

E.28 Transfer time schedule

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

E.29 Purchaser's technical requirements

The technical requirements that the purchaser is required to fulfil to hold the crypto-assets of purchased crypto-assets are subject to the respective capabilities of the Crypto Asset Service Provider listing the crypto-asset.

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

Not applicable.

E.31 CASP identifier

Not applicable.

E.32 Placement form

Not applicable.

E.33 Trading platforms name

The trading on all MiCAR-compliant trading platforms is sought.

E.34 Trading platforms Market identifier code (MIC)

Not applicable.

E.35 Trading platforms access

This depends on the trading platform listing the asset.

E.36 Involved costs

This depends on the trading platform listing the asset. Furthermore, costs may occur for making transfers out of the platform (i. e. "gas costs" for blockchain network use that may exceed the value of the crypto-asset itself).

E.37 Offer expenses

Not applicable, as this crypto-asset white paper concerns the admission to trading and not the offer of the token to the public.

E.38 Conflicts of interest

MiCAR-compliant Crypto Asset Service Providers shall have strong measurements in place in order to manage conflicts of interests. Due to the broad audience this white-paper is adressing, potential investors should always check the conflicts of Interest policy of their respective counterparty.

E.39 Applicable law

Not applicable, as it is referred to on "offer to the public" and in this white-paper, the admission to trading is sought.

E.40 Competent court

Not applicable, as it is referred to on "offer to the public" and in this white-paper, the admission to trading is sought.

Part F – Information about the crypto-assets

F.1 Crypto-asset type

The crypto-asset described in the white paper is classified as a crypto-asset under the Markets in Crypto-Assets Regulation (MiCAR) but does not qualify as an electronic money token (EMT) or an asset-referenced token (ART). It is a digital representation of value that can be stored and transferred using distributed ledger technology (DLT) or similar technology, without embodying or conferring any rights to its holder.

The asset does not aim to maintain a stable value by referencing an official currency, a basket of assets, or any other underlying rights. Instead, its valuation is entirely market-driven, based on supply and demand dynamics, and not supported by a stabilization mechanism. It is neither pegged to any fiat currency nor backed by any external assets, distinguishing it clearly from EMTs and ARTs.

Furthermore, the crypto-asset is not categorized as a financial instrument, deposit, insurance product, pension product, or any other regulated financial product under EU law. It does not grant financial rights, voting rights, or any contractual claims to its holders,

ensuring that it remains outside the scope of regulatory frameworks applicable to traditional financial instruments.

F.2 Crypto-asset functionality

The DYDX token is designed as the native token of the DYDX Chain, a Cosmos SDK-based blockchain. It has been structured to serve several intended functions within the network framework. Token holders may delegate or stake their tokens with validators, which contributes to the intended security of the network through its delegated Proof-of-Stake consensus mechanism. Validators and their delegators can, in turn, receive protocol rewards funded by a share of collected trading and transaction fees.

In addition, the token is intended to facilitate participation in on-chain governance processes, where staked tokens can be used to vote on proposals relating to protocol parameters, treasury management, or network upgrades. Another functionality foreseen is the distribution of trading rewards, where users who execute trades on the network may receive token-based incentives calculated in proportion to the trading fees they have paid.

Finally, migration from the earlier ethDYDX token on Ethereum to the DYDX Chain has been supported through a one-to-one smart contract bridge, although support for this mechanism is scheduled to be discontinued from June 2025.

It should be noted that these functionalities, including the allocation of protocol revenues and governance parameters, are subject to change through decisions of the network's on-chain governance system, meaning their continuation and scope cannot be assured over time.

The token is also available on Osmosis.

F.3 Planned application of functionalities

All the functionalities mentioned in F.2 are available for the Token holders as at the date of this crypto-asset white paper. According to official sources, no further functionalities are planned (see D.8.).

A description of the characteristics of the crypto asset, including the data necessary for classification of the crypto-asset white paper in the register referred to in Article 109 of Regulation (EU) 2023/1114, as specified in accordance with paragraph 8 of that Article

F.4 Type of crypto-asset white paper

The white paper type is "other crypto-assets" (i. e. "OTHR").

F.5 The type of submission

The white paper submission type is "NEWT", which stands for new token.

F.6 Crypto-asset characteristics

The tokens are crypto-assets other than EMTs and ARTs, which are available on the DYDX mainnet (a cosmos-based blockchain) and Osmosis. The tokens are fungible (and a total of 1,000,000,000 can be issued (see E.12). The tokens are a digital representation of value, and have no inherent rights attached as well as no intrinsic utility.

F.7 Commercial name or trading name

See F.13.

F.8 Website of the issuer

No formal issuer can be identified for the Token. Further information regarding the protocol, the broader ecosystem, and the Token is available at: https://dydx.xyz.

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

2025-09-30

F.10 Publication date

2025-09-30

F.11 Any other services provided by the issuer

It is not possible to exclude a possibility that the issuer of the token provides or will provide other services not covered by Regulation (EU) 2023/1114 (i.e. MiCAR).

F.12 Language or languages of the crypto-asset white paper

EN

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

728WHR0H1; P6N1JVK4W

F.14 Functionally fungible group digital token identifier, where available

1HZHK551M

F.15 Voluntary data flag

Mandatory.

F.16 Personal data flag

The white paper does contain personal data.

F.17 LEI eligibility

The issuer should be eligible for a Legal Entity Identifier.

F.18 Home Member State

Germany

F.19 Host Member States

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

Part G – Information on the rights and obligations attached to the crypto-assets

G.1 Purchaser rights and obligations

There are no rights or obligations attached for/of the purchaser.

G.2 Exercise of rights and obligations

As the token grants neither rights nor obligations, there are no procedures and conditions for the exercise of these rights applicable.

G.3 Conditions for modifications of rights and obligations

As the token grants neither rights nor obligations, there are no conditions under which the rights and obligations may be modified applicable. An adjustment of the technical infrastructure necessary to exercise the promised governance rights, declining functionality due to dilution, changing rights within the voting platforms, and all other adverse effects for investors may occur at any time.

G.4 Future public offers

Information on the future offers to the public of crypto-assets were not available at the time of writing this white paper (2025-08-15).

G.5 Issuer retained crypto-assets

According to the official documentation, there is currently no formally determined or publicly communicated allocation of DYDX tokens across specific groups such as investors, team members, or advisors. All tokens were created at the genesis of the DYDX Chain, and their distribution is the result of the initial genesis participation, subsequent on-chain activity, and market transactions. Since there is no formal issuer of the Token, it cannot be conclusively determined which portion, if any, should be classified as issuer-retained assets, as no central entity holds such a role in the ecosystem.

The temporary token distribution can be traced on-chain: https://www.mintscan.io/dydx/assets/adydx?sector=holders

Community and project-related vaults can also be traced here: https://www.mintscan.io/dydx/treasury. The investor must be aware that a public address cannot necessarily be assigned to a single person or entity, which limits the ability to determine exact economic influence or future actions. Token distribution changes can negatively impact the investor.

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

The admission to trading is sought.

G.10 Crypto-assets purchase or sale modalities

Not applicable, as this white paper is written to support admission to trading and not for the initial offer to the public.

G.11 Crypto-assets transfer restrictions

The crypto-assets as such do not have any transfer restrictions and are generally freely transferable. The Crypto Asset Service Providers can impose their own restrictions in agreements they enter with their clients. The Crypto Asset Service Providers may impose restrictions to buyers and sellers in accordance with applicable laws and internal policies and terms.

G.12 Supply adjustment protocols

No, there are no fixed protocols that can increase or decrease the supply implemented as of 2025-08-27. It is possible to decrease the circulating supply, by transferring crypto-assets to so called "burn-adresses", which are adresses that render the crypto-asset "non-transferable" after sent to those adresses.

G.13 Supply adjustment mechanisms

The Token has a fixed total supply of 1,000,000,000, established at the genesis of the DYDX mainnet. There are no automatic or algorithmic mechanisms that adjust supply in response to market demand or other economic factors.

The only way the total supply could be altered is through the Network's on-chain governance system. Any such change would require a formal governance proposal, discussion, and approval by Token stakers and validators. This ensures that modifications to supply can only occur through collective community decision-making.

In addition, Tokens deposited for governance proposals that fail to meet the required thresholds (deposit, quorum, or are vetoed) are permanently burned. While this mechanism can slightly reduce the overall supply, it is incidental and not designed as a tool for active supply management.

G.14 Token value protection schemes

No, the token does not have value protection schemes.

G.15 Token value protection schemes description

Not applicable.

G.16 Compensation schemes

No, the token does not have compensation schemes.

G.17 Compensation schemes description

Not applicable.

G.18 Applicable law

Applicable law likely depends on the location of any particular transaction with the token.

G.19 Competent court

Competent court likely depends on the location of any particular transaction with the token.

Part H – information on the underlying technology

H.1 Distributed ledger technology (DTL)

See F.13.

H.2 Protocols and technical standards

The crypto asset that is the subject of this white paper is available on multiple DLT networks. These include: DYDX and Osmosis. In general, when evaluating crypto assets, the total number of tokens issued across different networks must always be taken into account, as spillover effects can be adverse for investors.

The following applies to DYDX:

The DYDX token is embedded in the DYDX Chain, which is built on the Cosmos SDK and secured through the CometBFT consensus engine. The network follows Cosmos SDK conventions for address formatting and messaging, using Bech32 encoding derived from public keys. Transactions rely on Cosmos SDK message types, including MsgSend, MsgDelegate, MsgVote, and MsgUndelegate, adapted for perpetual futures trading and staking functionalities. Governance proposals, validator operations, and token staking are executed using protocol-specific modules that follow established open-source standards, allowing for interoperability with the broader Cosmos ecosystem via the Inter-Blockchain Communication (IBC) protocol.

The following applies to Osmosis:

Osmosis is built on the Cosmos SDK and uses the Inter-Blockchain Communication (IBC) protocol for interoperability. These standards enable cross-chain interaction within the Cosmos ecosystem but remain dependent on the adoption and stability of the Cosmos framework. Reliance on a still-developing interoperability standard may introduce integration and security risks.

H.3 Technology used

The crypto asset that is the subject of this white paper is available on multiple DLT networks. These include: DYDX and Osmosis. In general, when evaluating crypto assets, the total number of tokens issued across different networks must always be taken into account, as spillover effects can be adverse for investors.

The following applies to DYDX:

The DYDX Chain operates as a sovereign Layer 1 blockchain with its own ledger of transactions, validator actions, and governance outcomes. The ledger provides an immutable record of token transfers and staking activities, intended to thereby ensure accountability and transparency. Users interact with the protocol primarily through self-custodial wallets, such as Keplr or Cosmostation, which require secure management of private keys and recovery phrases. Loss of private keys or seed phrases results in the permanent loss of access to the associated tokens. The protocol relies on elliptic curve cryptography (secp256k1) for transaction validation, SHA-256 hashing for block integrity, and an open-source software stack maintained by community developers.

The following applies to Osmosis:

The platform functions as an automated market maker (AMM) with customizable liquidity pools. Osmosis leverages the Tendermint Core consensus engine and Cosmos SDK modules, which provide modularity and extensibility. While this design supports innovation, it also increases the attack surface, and the AMM model itself remains sensitive to issues such as front-running, slippage, and smart contract vulnerabilities.

H.4 Consensus mechanism

The crypto asset that is the subject of this white paper is available on multiple DLT networks. These include: DYDX and Osmosis. In general, when evaluating crypto assets, the total number of tokens issued across different networks must always be taken into account, as spillover effects can be adverse for investors.

The following applies to DYDX:

Consensus is achieved through a delegated Proof-of-Stake (dPoS) model, where validators are elected based on the total tokens staked with them, either via self-staking or delegation. The active validator set is limited to the top validators, ranked by stake. Validators are responsible for proposing new blocks. A block is committed when at least two-thirds of the validator set, weighted by stake, reaches agreement. This structure is designed with the intention to promote both security and decentralisation, though validator concentration or coordination failures can affect the resilience of the system.

Slashing mechanisms apply to discourage misbehaviour, such as downtime, double-signing, or deviation from consensus rules.

The following applies to Osmosis:

Osmosis applies a Proof-of-Stake consensus through the Tendermint BFT engine. Validator nodes secure the network by staking OSMO tokens, and consensus is reached with fast finality. While PoS ensures efficiency, the validator set is comparatively small, creating concentration risks and dependence on correct governance behavior. The system may be exposed to validator collusion or governance capture."

H.5 Incentive mechanisms and applicable fees

The crypto asset that is the subject of this white paper is available on multiple DLT networks. These include: DYDX and Osmosis. In general, when evaluating crypto assets, the total number of tokens issued across different networks must always be taken into account, as spillover effects can be adverse for investors.

The following applies to DYDX:

The incentive structure of the dYdX Chain is based on the redistribution of network revenues. Validators and their delegators are compensated with staking rewards derived from 40% of the net trading and transaction fees, which are collected predominantly in USDC. These rewards are distributed automatically on a block-by-block basis and proportionally according to the staked tokens and validator commission rates. Validators are free to set commission fees within a configurable range. In addition, traders on the network may receive token-denominated trading rewards, with up to 90% of their paid fees returned in DYDX tokens. Transactions on the network require token-based staking actions and governance deposits, while a slashing module penalises validator misbehaviour by reducing both validator and delegator stakes. The parameters of these mechanisms, including validator set size, reward percentages, and commission structures, are subject to modification through on-chain governance.

The following applies to Osmosis:

The network incentivizes liquidity providers and validators through block rewards and transaction fees paid in OSMO. Liquidity mining programs and governance-driven reward distribution may influence participation but can also result in centralization of liquidity or speculative behavior. Fees are variable, and long-term sustainability depends on balancing incentives with network security and cost efficiency.

H.6 Use of distributed ledger technology

No, DLT not operated by the issuer, offeror, a person seeking admission to trading or a third-party acting on the issuer's their behalf.

H.7 DLT functionality description

Not applicable.

H.8 Audit

As we are understanding the question relating to "technology" to be interpreted in a broad sense, the answer answer to whether an audit of "the technology used" was conducted is "no, we can not guarantee, that all parts of the technology used have been audited". This is due to the fact this report focusses on risk, and we can not guarantee that each part of the technology used was audited.

H.9 Audit outcome

Not applicable.

Part I – Information on risks

I.1 Offer-related risks

1. Regulatory and Compliance

This white paper (drawn up from 2025-08-27) has been prepared with utmost caution; however, uncertainties in the regulatory requirements and future changes in regulatory frameworks could potentially impact the token's legal status and its tradability. There is also a high probability that other laws will come into force, changing the rules for the

trading of the token. Therefore, such developments shall be monitored and acted upon accordingly.

2. Operational and Technical

Blockchain Dependency: The token is entirely dependent on the blockchain the crypto-asset is issued upon (as of 2025-08-27). Any issues, such as downtime, congestion, or security vulnerabilities within the blockchain, could adversely affect the token's functionality.

Smart Contract Risks: Smart contracts governing the token may contain hidden vulnerabilities or bugs that could disrupt the token offering or distribution processes.

Connection Dependency: As the trading of the token also involves other trading venues, technical risks such as downtime of the connection or faulty code are also possible.

Human errors: Due to the irrevocability of blockchain-transactions, approving wrong transactions or using incorrect networks/addresses will most likely result in funds not being accessibly anymore.

Custodial risk: When admitting the token to trading, the risk of losing clients assets due to hacks or other malicious acts is given. This is due to the fact the token is hold in custodial wallets for the customers.

3. Market and Liquidity

Volatility: The token will most likely be subject to high volatility and market speculation. Price fluctuations could be significant, posing a risk of substantial losses to holders.

Liquidity Risk: Liquidity is contingent upon trading activity levels on decentralized exchanges (DEXs) and potentially on centralized exchanges (CEXs), should they be involved. Low trading volumes may restrict the buying and selling capabilities of the tokens.

4. Counterparty

As the admission to trading involves the connection to other trading venues, counterparty risks arise. These include, but are not limited to, the following risks:

General Trading Platform Risk: The risk of trading platforms not operating to the highest standards is given. Examples like FTX show that especially in nascent industries, compliance and oversight-frameworks might not be fully established and/or enforced.

Listing or Delisting Risks: The listing or delisting of the token is subject to the trading partners internal processes. Delisting of the token at the connected trading partners could harm or completely halt the ability to trade the token.

5. Liquidity

Liquidity of the token can vary, especially when trading activity is limited. This could result in high slippage when trading a token.

6. Failure of one or more Counterparties

Another risk stems from the internal operational processes of the counterparties used. As there is no specific oversight other than the typical due diligence check, it cannot be guaranteed that all counterparties adhere to the best market standards.

Bankruptcy Risk: Counterparties could go bankrupt, possibly resulting in a total loss for the clients assets hold at that counterparty.

7. Information asymmetry

Different groups of participants may not have the same access to technical details or governance information, leading to uneven decision-making and potential disadvantages for less informed investors.

I.2 Issuer-related risks

1. Insolvency

As with every other commercial endeavor, the risk of insolvency of the issuer is given. This could be caused by but is not limited to lack of interest from the public, lack of funding, incapacitation of key developers and project members, force majeure (including pandemics and wars) or lack of commercial success or prospects.

2. Counterparty

In order to operate, the issuer has most likely engaged in different business relationships with one or more third parties on which it strongly depends on. Loss or changes in the leadership or key partners of the issuer and/or the respective counterparties can lead to disruptions, loss of trust, or project failure. This could result in a total loss of economic value for the crypto-asset holders.

3. Legal and Regulatory Compliance

Cryptocurrencies and blockchain-based technologies are subject to evolving regulatory landscapes worldwide. Regulations vary across jurisdictions and may be subject to significant changes. Non-compliance can result in investigations, enforcement actions, penalties, fines, sanctions, or the prohibition of the trading of the crypto-asset impacting its viability and market acceptance. This could also result in the issuer to be subject to private litigation. The beforementioned would most likely also lead to changes with respect to trading of the crypto-asset that may negatively impact the value, legality, or functionality of the crypto-asset.

4. Operational

Failure to develop or maintain effective internal control, or any difficulties encountered in the implementation of such controls, or their improvement could harm the issuer's business, causing disruptions, financial losses, or reputational damage.

5. Industry

The issuer is and will be subject to all of the risks and uncertainties associated with a crypto-project, where the token issued has zero intrinsic value. History has shown that most of this projects resulted in financial losses for the investors and were only set-up to enrich a few insiders with the money from retail investors.

6. Reputational

The issuer faces the risk of negative publicity, whether due to, without limitation, operational failures, security breaches, or association with illicit activities, which can damage the issuer reputation and, by extension, the value and acceptance of the crypto-asset.

7. Competition

There are numerous other crypto-asset projects in the same realm, which could have an effect on the crypto-asset in question.

8. Unanticipated Risk

In addition to the risks included in this section, there might be other risks that cannot be foreseen. Additional risks may also materialize as unanticipated variations or combinations of the risks discussed.

9. Provision of financial-like services

This functional positioning of the projects activities, depending on jurisdiction, may fall under financial services, portfolio management, or investment advisory regimes. As a result, there is a risk that regulators may classify certain activities of the platform or of entities associated with it as the provision of regulated financial services.

Such classification could trigger additional licensing, compliance, and reporting requirements. Failure to meet these requirements may lead to restrictions, enforcement measures, or even the prohibition of certain activities. Investors should be aware that these regulatory risks are outside of their direct control and could materially affect both the operation of the platform and the value or usability of the token.

I.3 Crypto-assets-related risks

1. Valuation

As the crypto-asset does not have any intrinsic value, and grants neither rights nor obligations, the only mechanism to determine the price is supply and demand. Historically, most crypto-assets have dramatically lost value and were not a beneficial investment for the investors. Therefore, investing in these crypto-assets poses a high risk, and the loss of funds can occur.

2. Market Volatility

Crypto-asset prices are highly susceptible to dramatic fluctuations influence by various factors, including market sentiment, regulatory changes, technological advancements,

and macroeconomic conditions. These fluctuations can result in significant financial losses within short periods, making the market highly unpredictable and challenging for investors. This is especially true for crypto-assets without any intrinsic value, and investors should be prepared to lose the complete amount of money invested in the respective crypto-assets.

3. Liquidity Challenges

Some crypto-assets suffer from limited liquidity, which can present difficulties when executing large trades without significantly impacting market prices. This lack of liquidity can lead to substantial financial losses, particularly during periods of rapid market movements, when selling assets may become challenging or require accepting unfavorable prices.

4. Asset Security

Crypto-assets face unique security threats, including the risk of theft from exchanges or digital wallets, loss of private keys, and potential failures of custodial services. Since crypto transactions are generally irreversible, a security breach or mismanagement can result in the permanent loss of assets, emphasizing the importance of strong security measures and practices.

5. Scams

The irrevocability of transactions executed using blockchain infrastructure, as well as the pseudonymous nature of blockchain ecosystems, attracts scammers. Therefore, investors in crypto-assets must proceed with a high degree of caution when investing in if they invest in crypto-assets. Typical scams include – but are not limited to – the creation of fake crypto-assets with the same name, phishing on social networks or by email, fake giveaways/airdrops, identity theft, among others.

6. Blockchain Dependency

Any issues with the blockchain used, such as network downtime, congestion, or security vulnerabilities, could disrupt the transfer, trading, or functionality of the crypto-asset.

7. Smart Contract Vulnerabilities

The smart contract used to issue the crypto-asset could include bugs, coding errors, or vulnerabilities which could be exploited by malicious actors, potentially leading to asset loss, unauthorized data access, or unintended operational consequences.

8. Privacy Concerns

All transactions on the blockchain are permanently recorded and publicly accessible, which can potentially expose user activities. Although addresses are pseudonoymous, the transparent and immutable nature of blockchain allows for advanced forensic analysis and intelligence gathering. This level of transparency can make it possible to link blockchain addresses to real-world identities over time, compromising user privacy.

9. Regulatory Uncertainty

The regulatory environment surrounding crypto-assets is constantly evolving, which can directly impact their usage, valuation, and legal status. Changes in regulatory frameworks may introduce new requirements related to consumer protection, taxation, and anti-money laundering compliance, creating uncertainty and potential challenges for investors and businesses operating in the crypto space. Although the crypto-asset do not create or confer any contractual or other obligations on any party, certain regulators may nevertheless qualify the crypto-asset as a security or other financial instrument under their applicable law, which in turn would have drastic consequences for the crypto-asset, including the potential loss of the invested capital in the asset. Furthermore, this could lead to the sellers and its affiliates, directors, and officers being obliged to pay fines, including federal civil and criminal penalties, or make the crypto-asset illegal or impossible to use, buy, or sell in certain jurisdictions. On top of that, regulators could take action against the issuer as well as the trading platforms if the the regulators view the token as an unregistered offering of securities or the operations otherwise as a violation of existing law. Any of these outcomes would negatively affect the value and/or functionality of the crypot-asset and/or could cause a complete loss of funds of the invested money in the crypto-asset for the investor.

10. Counterparty risk

Engaging in agreements or storing crypto-assets on exchanges introduces counterparty risks, including the failure of the other party to fulfill their obligations. Investors may face potential losses due to factors such as insolvency, regulatory non-compliance, or fraudulent activities by counterparties, highlighting the need for careful due diligence when engaging with third parties.

11. Reputational concerns

Crypto-assets are often subject to reputational risks stemming from associations with illegal activities, high-profile security breaches, and technological failures. Such incidents can undermine trust in the broader ecosystem, negatively affecting investor confidence and market value, thereby hindering widespread adoption and acceptance.

12. Technological Innovation

New technologies or platforms could render the network's design less competitive or even break fundamental parts (i.e., quantum computing might break cryptographic algorithms used to secure the network), impacting adoption and value. Participants should approach the crypto-asset with a clear understanding of its speculative and volatile nature and be prepared to accept these risks and bear potential losses, which could include the complete loss of the asset's value.

13. Community and Narrative

As the crypto-asset has no intrinsic value, all trading activity is based on the intended market value is heavily dependent on its community.

14. Interest Rate Change

Historically, changes in interest, foreign exchange rates, and increases in volatility have increased credit and market risks and may also affect the value of the crypto-asset. Although historic data does not predict the future, potential investors should be aware that general movements in local and other factors may affect the market, and this could also affect market sentiment and, therefore most likely also the price of the crypto-asset.

15. Taxation

The taxation regime that applies to the trading of the crypto-asset by individual holders or legal entities will depend on the holder's jurisdiction. It is the holder's sole responsibility to comply with all applicable tax laws, including, but not limited to, the reporting and payment of income tax, wealth tax, or similar taxes arising in connection with the appreciation and depreciation of the crypto-asset.

16. Anti-Money Laundering/Counter-Terrorism Financing

It cannot be ruled out that crypto-asset wallet addresses interacting with the crypto-asset have been, or will be used for money laundering or terrorist financing purposes, or are identified with a person known to have committed such offenses.

17. Market Abuse

It is noteworthy that crypto-assets are potentially prone to increased market abuse risks, as the underlying infrastructure could be used to exploit arbitrage opportunities through schemes such as front-running, spoofing, pump-and-dump, and fraud across different systems, platforms, or geographic locations. This is especially true for crypto-assets with a low market capitalization and few trading venues, and potential investors should be aware that this could lead to a total loss of the funds invested in the crypto-asset.

18. Timeline and Milestones

Critical project milestones could be delayed by technical, operational, or market challenges.

19. Legal ownership: Depending on jurisdiction, token holders may not have enforceable legal rights over their holdings, limiting avenues for recourse in disputes or cases of fraud.

20. Jurisdictional blocking: Access to exchanges, wallets, or interfaces may be restricted based on user location or regulatory measures, even if the token remains transferable on-chain.

21. Token concentration: A large proportion of tokens held by a few actors could allow price manipulation, governance dominance, or sudden sell-offs impacting market stability.

22. Ecosystem incentive misalignment: If validator, developer, or user rewards become unattractive or distorted, network security and participation could decline.

23. Governance deadlock: Poorly structured or fragmented governance processes may prevent timely decisions, creating delays or strategic paralysis.

24. Compliance misalignment: Features or delivery mechanisms may unintentionally conflict with evolving regulations, particularly regarding consumer protection or data privacy.

I.4 Project implementation-related risks

As this white paper relates to the "Admission to trading" of the crypto-asset, the implementation risk is referring to the risks on the Crypto Asset Service Providers side. These can be, but are not limited to, typical project management risks, such as key-personal-risks, timeline-risks, and technical implementation-risks.

I.5 Technology-related risks

As this white paper relates to the "Admission to trading" of the crypto-asset, the technology-related risks mainly involve the DLT networks where the crypto asset is issued in.

1. Blockchain Dependency Risks

Network Downtime: Potential outages or congestion on the involved blockchains could interrupt on-chain token transfers, trading, and other functions.

2. Smart Contract Risks

Vulnerabilities: The smart contract governing the token could contain bugs or vulnerabilities that may be exploited, affecting token distribution or vesting schedules.

3. Wallet and Storage Risks

Private Key Management: Token holders must securely manage their private keys and recovery phrases to prevent permanent loss of access to their tokens, which includes Trading-Venues, who are a prominent target for dedicated hacks.

Compatibility Issues: The tokens require compatible wallets for storage and transfer. Any incompatibility or technical issues with these wallets could impact token accessibility.

4. Network Security Risks

Attack Risks: The blockchains may face threats such as denial-of-service (DoS) attacks or exploits targeting its consensus mechanism, which could compromise network integrity.

Centralization Concerns: Although claiming to be decentralized, the relatively smaller number of validators/concentration of stakes within the networks compared to other blockchains might pose centralization risks, potentially affecting network resilience.

5. Evolving Technology Risks: Technological Obsolescence: The fast pace of innovation in blockchain technology may make the used token standard appear less competitive or become outdated, potentially impacting the usability or adoption of the token.

6. Forking risk: Network upgrades may split the blockchain into separate versions, potentially creating duplicate tokens or incompatibility between different versions of the protocol.

7. Economic abstraction: Mechanisms such as gas relayers or wrapped tokens may allow users to bypass the native asset, reducing its direct demand and weakening its economic role.

8. Dust and spam attacks: Low-value transactions may flood the network, increasing ledger size, reducing efficiency, and exposing user addresses to tracking.

9. Frontend dependency: If users rely on centralised web interfaces or wallets, service outages or compromises could block access even if the blockchain itself continues to operate.

I.6 Mitigation measures

None.

Part J – Information on the sustainability indicators in relation to adverse impact on the climate and other environment-related adverse impacts

J.1 Adverse impacts on climate and other environment-related adverse impacts

S.1 Name

Crypto Risk Metrics GmbH

S.2 Relevant legal entity identifier

39120077M9TG0O1FE242

S.3 Name of the cryptoasset

DYDX

S.4 Consensus Mechanism

The crypto asset that is the subject of this white paper is available on multiple DLT networks. These include: DYDX and Osmosis. In general, when evaluating crypto assets, the total number of tokens issued across different networks must always be taken into account, as spillover effects can be adverse for investors.

The following applies to DYDX:

Consensus is achieved through a delegated Proof-of-Stake (dPoS) model, where validators are elected based on the total tokens staked with them, either via self-staking or delegation. The active validator set is limited to the top validators, ranked by stake. Validators are responsible for proposing new blocks. A block is committed when at least two-thirds of the validator set, weighted by stake, reaches agreement. This structure is designed with the intention to promote both security and decentralisation, though validator concentration or coordination failures can affect the resilience of the system. Slashing mechanisms apply to discourage misbehaviour, such as downtime, double-signing, or deviation from consensus rules.

The following applies to Osmosis:

Osmosis applies a Proof-of-Stake consensus through the Tendermint BFT engine. Validator nodes secure the network by staking OSMO tokens, and consensus is reached with fast finality. While PoS ensures efficiency, the validator set is comparatively small, creating concentration risks and dependence on correct governance behavior. The system may be exposed to validator collusion or governance capture."

S.5 Incentive Mechanisms and Applicable Fees

The crypto asset that is the subject of this white paper is available on multiple DLT networks. These include: DYDX and Osmosis. In general, when evaluating crypto assets, the total number of tokens issued across different networks must always be taken into account, as spillover effects can be adverse for investors.

The following applies to DYDX:

The incentive structure of the dYdX Chain is based on the redistribution of network revenues. Validators and their delegators are compensated with staking rewards derived from 40% of the net trading and transaction fees, which are collected predominantly in USDC. These rewards are distributed automatically on a block-by-block basis and proportionally according to the staked tokens and validator commission rates. Validators are free to set commission fees within a configurable range. In addition, traders on the network may receive token-denominated trading rewards, with up to 90% of their paid fees returned in DYDX tokens. Transactions on the network require token-based staking actions and governance deposits, while a slashing module penalises validator misbehaviour by reducing both validator and delegator stakes. The parameters of these mechanisms, including validator set size, reward percentages, and commission structures, are subject to modification through on-chain governance.

The following applies to Osmosis:

The network incentivizes liquidity providers and validators through block rewards and transaction fees paid in OSMO. Liquidity mining programs and governance-driven reward distribution may influence participation but can also result in centralization of liquidity or

speculative behavior. Fees are variable, and long-term sustainability depends on balancing incentives with network security and cost efficiency.

S.6 Beginning of the period to which the disclosure relates

2024-09-01

S.7 End of the period to which the disclosure relates

2025-09-01

S.8 Energy consumption

46237.88254 kWh/a

S.9 Energy consumption sources and methodologies

For the calculation of energy consumption of the DYDX Chain, 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 information regarding the hardware used and the number of participants in the network is based on assumptions that are verified with best effort using empirical data. In general, participants are assumed to be largely economically rational. As a precautionary principle, we make assumptions on the conservative side when in doubt, i.e. making higher estimates for the adverse impacts.

The energy consumption of this asset is aggregated across multiple components: To determine the energy consumption of a token, the energy consumption of the network Osmosis is calculated first. For the energy consumption of the token, a fraction of the energy consumption of the network is attributed to the token, which is determined based on the activity of the crypto-asset within the network. The information regarding the hardware used and the number of participants in the network is based on assumptions that are verified with best effort using empirical data. In general, participants are assumed to be largely economically rational. As a precautionary principle, we make assumptions

on the conservative side when in doubt, i.e. making higher estimates for the adverse impacts.

S.10 Renewable energy consumption

32.2255486008 %

S.11 Energy intensity

0.00005 kWh

S.12 Scope 1 DLT GHG emissions – Controlled

0.00000 tCO2e/a

S.13 Scope 2 DLT GHG emissions – Purchased

15.38857 tCO2e/a

S.14 GHG intensity

0.00002 kgCO2e

S.15 Key energy sources and methodologies

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 Our World in Data, see citation. The intensity is calculated as the marginal energy cost wrt. one more transaction. Ember (2025); Energy Institute - Statistical Review of World Energy (2024) - with major processing by Our World in Data. "Share of electricity generated by renewables - Ember and Energy Institute" [dataset]. Ember, "Yearly Electricity Data Europe"; Ember, "Yearly Electricity Data"; Energy Institute, "Statistical Review of World Energy" [original data]. Retrieved from https://ourworldindata.org/grapher/share-electricity-renewables.

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 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 Our World in Data, see citation. The intensity is calculated as the marginal emission wrt. one more transaction. Ember (2025); Energy Institute - Statistical Review of World Energy (2024) - with major processing by Our World in Data. "Carbon intensity of electricity generation - Ember and Energy Institute" [dataset]. Ember, "Yearly Electricity Data Europe"; Ember, "Yearly Electricity Data"; Energy Institute, "Statistical Review of World Energy" [original data]. Retrieved from https://ourworldindata.org/grapher/carbon-intensity-electricity Licenced under CC BY 4.0.

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