

**White paper drafted under the  
European Markets in Crypto-  
Assets Regulation (EU)  
2023/1114 for FFG H9W8HR1JD**

## Preamble

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## **01. Date of notification**

This white paper was notified on 2026-03-13.

## **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**

As defined in Article 3(9) of Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on Markets in Crypto-Assets – amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937 – a utility token is “a type of crypto-asset that is only intended to provide access to a good or a service supplied by its issuer”. This crypto-asset does not qualify as a utility token, as its intended use goes beyond providing access to a good or service supplied solely by the issuer.

## **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 crypto-asset Troll (TROLL) referred to in this white paper is a crypto-asset other than EMTs and ARTs, and is deployed on the Solana network, according to the DTI FFG shown in section F.14, as of 2026-03-10. The maximum supply of the crypto-asset is 1,000,000,000 tokens. The first activity in Solana can be viewed on 2024-03-10 (transaction hash: 2iVL4ofvPdTYWHQyrZNjHzDzmiGiKPtgYD3BKVvpnbzF6BLtZFGCjnMNivrE26hL3j4tkbv128Q426S2XW66HM7, source: <https://solscan.io/tx/2iVL4ofvPdTYWHQyrZNjHzDzmiGiKPtgYD3BKVvpnbzF6BLtZFGCjnMNivrE26hL3j4tkbv128Q426S2XW66HM7>, accessed 2026-03-10).

The Troll project is a community oriented crypto-asset initiative associated with internet meme culture and centred around the "Trollface" meme. The project's activities are primarily organised around online community participation and social media interaction, including informal promotional activities and meme based content creation. The crypto-asset TROLL is used primarily as a unit of participation within the associated online community.

The crypto-asset does not grant any legally enforceable or contractual rights or obligations to its holders or purchasers. Any functionalities accessible through the underlying technology are purely technical or operational in nature and do not confer rights comparable to ownership, profit participation, governance, or similar entitlements known from traditional financial instruments.

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

As defined in Article 3(9) of Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on Markets in Crypto-Assets – amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937 – a utility token is "a type of crypto-asset that is only intended to provide access to a good or a service supplied by its issuer". This crypto-asset does not qualify as a utility token, as its intended use goes beyond providing access to a good or a service supplied solely by the issuer.

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

Crypto Risk Metrics GmbH is seeking admission to trading on the Payward Global Solutions LTD ("Kraken") platform in the European Union in accordance with Article 5 of Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on Markets in Crypto-Assets, amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937. The admission to trading is not accompanied by a public offer of the crypto-asset.

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

### **A.1 Name**

Crypto Risk Metrics GmbH is the person seeking admission to trading.

### **A.2 Legal form**

The legal form of Crypto Risk Metrics GmbH is 2HBR, which corresponds to "Gesellschaft mit beschränkter Haftung".

### **A.3 Registered address**

The registered address of Crypto Risk Metrics GmbH is Lange Reihe 73 20099 Hamburg  
Germany  
federal state of Hamburg.

### **A.4 Head office**

Not Applicable

### **A.5 Registration date**

Crypto Risk Metrics GmbH was registered on 2018-12-03.

### **A.6 Legal entity identifier**

The Legal Entity Identifier (LEI) of Crypto Risk Metrics GmbH is 39120077M9TG001FE242.

### **A.7 Another identifier required pursuant to applicable national law**

The national identifier of Crypto Risk Metrics GmbH is HRB 154488.

### **A.8 Contact telephone number**

+4915144974120

### **A.9 E-mail address**

info@crypto-risk-metrics.com

### **A.10 Response time (Days)**

Crypto Risk Metrics GmbH will respond to investor enquiries within 30 calendar days.

### **A.11 Parent company**

Crypto Risk Metrics GmbH has no parent company.

### **A.12 Members of the management body**

<b>Identity</b>	<b>Function</b>	<b>Business Address</b>
Tim Zölitz	Chairman	Lange Reihe 73, 20099 Hamburg, Germany

### **A.13 Business activity**

Crypto Risk Metrics GmbH is a technical service provider that supports regulated entities in fulfilling their regulatory requirements. Among other services, Crypto Risk Metrics GmbH acts as a data provider for ESG data under Article 66(5). In light of the requirements set out in Articles 4(7), 5(4) and 66(3) 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, Crypto Risk Metrics GmbH aims to provide central services for crypto-asset white papers.

#### **A.14 Parent company business activity**

Crypto Risk Metrics GmbH does not have a parent company. Accordingly, no business activity of a parent company is to be reported in this section.

#### **A.15 Newly established**

Crypto Risk Metrics GmbH has been established since 2018-12-03 and is therefore not newly established (i.e. more than three years).

#### **A.16 Financial condition for the past three years**

Crypto Risk Metrics GmbH, founded in 2018 and based in Hamburg (HRB 154488), has undergone several strategic shifts in its business focus since incorporation. Due to these changes in business model and operational direction over time, the financial figures from earlier years are only comparable to a limited extent with the company's current commercial activities. The present business model – centred on regulatory technology and risk analytics in the context of the MiCA framework – has been developed progressively and can realistically be considered fully operational since approximately 2024.

The company's financial trajectory over the past three years reflects the transition from exploratory development towards market-ready product delivery. Profit or loss after tax for the last three financial years is as follows:

2024 (unaudited): loss of EUR 50,891.81

2023 (unaudited): loss of EUR 27,665.32

2022: profit of EUR 104,283.00

The profit in 2022 resulted primarily from legacy consulting activities, which were discontinued as part of the company's repositioning.

The losses in 2023 and 2024 resulted from strategic investments in the development of proprietary software infrastructure, regulatory frameworks, and compliance technology for the MiCA ecosystem. During those periods, no substantial commercial revenues were expected, as resources were directed towards preparing the platform for market entry in a regulated environment.

A fundamental repositioning of the company occurred in 2023 and especially in 2024, when the focus shifted towards providing risk management, regulatory reporting, and supervisory compliance solutions for financial institutions and crypto-asset service providers. This marked a material shift in business operations and monetisation strategy.

Based on the current business development in Q4 2025, revenues exceeding EUR 550,000 are expected for the fiscal year 2025, with an anticipated net profit of approximately EUR 100,000. These figures are neither audited nor based on a finalised annual financial statement; they are derived from the company's current pipeline, client development, and active commercial engagements. Accordingly, they are subject to future risks and market fluctuations.

With the regulatory environment now taking shape and the platform commercially validated, it is assumed that the effects of the strategic developments will continue to materialise in 2026. The company foresees further scalability of its technology and growing market demand for regulatory compliance tools in the European crypto-asset sector.

No public subsidies or governmental grants have been received to date; all operations have been financed through shareholder contributions and internally generated resources. Crypto Risk Metrics has never accepted any payments in tokens from projects it has worked with and – due to its internal Conflicts of Interest Policy – never will.

### **A.17 Financial condition since registration**

Not applicable. The company has been established for more than three years and its financial condition over the past three years is provided in Part A.16 above.

## **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, the issuer is different from the person seeking admission to trading.

### **B.2 Name**

While drafting this white paper (2026-03-10), TROLL does not publicly disclose any identifiable team members, corporate entity, or governance structure behind the project.

### **B.3 Legal form**

Could not be found while drafting this white paper (2026-03-10).

### **B.4 Registered address**

Could not be found while drafting this white paper (2026-03-10).

Could not be found while drafting this white paper (2026-03-10).

Could not be found while drafting this white paper (2026-03-10).

### **B.5 Head office**

Not applicable.

Not applicable.

Not applicable.

### **B.6 Registration date**

Could not be found while drafting this white paper (2026-03-10).

### **B.7 Legal entity identifier**

Could not be found while drafting this white paper (2026-03-10).

### **B.8 Another identifier required pursuant to applicable national law**

Could not be found while drafting this white paper (2026-03-10).

### **B.9 Parent company**

Could not be found while drafting this white paper (2026-03-10).

### **B.10 Members of the management body**

<b>Identity</b>	<b>Function</b>	<b>Business Address</b>
Could not be found while drafting this white paper (2026-03-10)	Not applicable	Not applicable

### **B.11 Business activity**

Could not be found while drafting this white paper (2026-03-10)

### **B.12 Parent company business activity**

Could not be found while drafting this white paper (2026-03-10)

## **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 since Crypto Risk Metrics GmbH is not a trading platform.

### **C.2 Legal form**

Not applicable since Crypto Risk Metrics GmbH is not a trading platform.

### **C.3 Registered address**

Not applicable since Crypto Risk Metrics GmbH is not a trading platform.

### **C.4 Head office**

Not applicable since Crypto Risk Metrics GmbH is not a trading platform.

### **C.5 Registration date**

Not applicable since Crypto Risk Metrics GmbH is not a trading platform.

### **C.6 Legal entity identifier**

Not applicable since Crypto Risk Metrics GmbH is not a trading platform.

### **C.7 Another identifier required pursuant to applicable national law**

Not applicable since Crypto Risk Metrics GmbH is not a trading platform.

### **C.8 Parent company**

Not applicable since Crypto Risk Metrics GmbH is not a trading platform.

### **C.9 Reason for crypto-Asset white paper Preparation**

Not applicable since Crypto Risk Metrics GmbH is not a trading platform.

### **C.10 Members of the Management body**

Not applicable since Crypto Risk Metrics GmbH is not a trading platform.

### **C.11 Operator business activity**

Not applicable since Crypto Risk Metrics GmbH is not a trading platform.

### **C.12 Parent company business activity**

Not applicable since Crypto Risk Metrics GmbH is not a trading platform.

### **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 since Crypto Risk Metrics GmbH is not a trading platform.

### **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 since Crypto Risk Metrics GmbH is not a trading platform.

## **Part D – Information about the crypto-asset project**

### **D.1 Crypto-asset project name**

Long Name: "TROLL", Short Name: "TROLL" according to the Digital Token Identifier Foundation ([www.dtif.org](http://www.dtif.org), DTI see F.13, FFG DTI see F.14 as of 2026-03-10).

### **D.2 Crypto-assets name**

Long Name: "TROLL" according to the Digital Token Identifier Foundation ([www.dtif.org](http://www.dtif.org), DTI see F.13, FFG DTI see F.14 as of 2026-03-10).

### **D.3 Abbreviation**

Short Name: "TROLL" according to the Digital Token Identifier Foundation ([www.dtif.org](http://www.dtif.org), DTI see F.13, FFG DTI see F.14 as of 2026-03-10).

### **D.4 Crypto-asset project description**

TROLL is a meme-themed crypto-asset issued on the Solana blockchain. It positions itself within the category of "meme coins", a segment of crypto-assets that is typically driven by community sentiment, internet culture, and online virality rather than technological innovation or intrinsic utility. The project does not claim to provide any underlying financial value and does not grant access to a

specific product, service, or protocol functionality. The crypto-asset is not backed by any physical assets, financial instruments, or other forms of collateral.

The branding and thematic concept of TROLL are derived from internet meme culture, specifically the widely recognised “Trollface” meme. The Trollface image was originally created by artist Carlos Ramirez and first appeared online on 19 September 2008 in a webcomic depicting internet trolling behaviour. Over time, the image became widely circulated across online communities and is commonly associated with humorous or provocative online interactions. Within the context of the TROLL crypto-asset, the reference to Trollface functions solely as a cultural and branding element intended to resonate with internet-native communities and meme culture.

The project does not involve the granting of ownership rights, profit-participation rights, or legal claims against the project entity or its contributors. Instead, the initiative centres on the creation and circulation of the TROLL crypto-asset within a digital environment shaped primarily by online community engagement and cultural expression. The future development of the project, including any potential features, governance arrangements, or operational structures, may evolve over time and remain subject to technical, economic, and regulatory considerations. All forward-looking aspects are inherently uncertain and may be modified, delayed, or discontinued without prior notice.

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

Name of person	Type of person	Business address of person	Domicile of company
Sea "Seal" ( <a href="https://x.com/fukupapers">https://x.com/fukupapers</a> )	Other person involved in implementation	Cannot be found	Cannot be found
Fungi ( <a href="https://x.com/iFungibility">https://x.com/iFungibility</a> )	Other person involved in implementation	Cannot be found	Cannot be found
Swish ( <a href="https://x.com/SwishPng">https://x.com/SwishPng</a> )	Other person involved in implementation	Cannot be found	Cannot be found

**D.6 Utility Token Classification**

As defined in Article 3(9) of Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on Markets in Crypto-Assets – amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937 – a utility token is “a type of crypto-asset that is only intended to provide access to a good or a service supplied by its issuer”. This crypto-asset does not qualify as a utility token, as its intended use goes beyond providing access to a good or a service supplied solely by the issuer.

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

As defined in Article 3(9) of Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on Markets in Crypto-Assets – amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937 – a utility token is “a type of

crypto-asset that is only intended to provide access to a good or a service supplied by its issuer". This crypto-asset does not qualify as a utility token, as its intended use goes beyond providing access to a good or a service supplied solely by the issuer.

## **D.8 Plans for the token**

While drafting this white paper (2026-03-10), there is no official roadmap, technical development plan, or strategic outline published by the project or any associated party regarding the future evolution, functionality, or governance of the TROLL token.

Past milestones:

- The TROLL project and token were launched on Solana's Pump.fun platform in May 2024

No official roadmap or future development milestones have been publicly communicated for the project.

## **D.9 Resource allocation**

No allocation plan, vesting mechanism, or tranche-based schedule has been disclosed for the TROLL crypto-asset.

Note that this information cannot be independently verified and is subject to change. Change can negatively impact the investor at any time. The temporary token distribution can be traced on-chain: <https://solscan.io/token/5UUH9RTDiSpq6HKS6bp4NdU9PNJpXRXuiw6ShBTBhgH2#holders>

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 serves the purpose of admission to trading and is not associated with any fundraising activity 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**

Crypto Risk Metrics GmbH is the person seeking admission to trading.

## **E.2 Reasons for public offer or admission to trading**

The purpose of seeking admission to trading is to enable the crypto-asset to be listed on a regulated platform in accordance with the applicable provisions of Regulation (EU) 2023/1114 and

Commission Implementing Regulation (EU) 2024/2984. The white paper has been drawn up to comply with the transparency requirements applicable to trading venues.

### **E.3 Fundraising target**

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

### **E.4 Minimum subscription goals**

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

### **E.5 Maximum subscription goals**

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

### **E.6 Oversubscription acceptance**

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

### **E.7 Oversubscription allocation**

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

### **E.8 Issue price**

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

### **E.10 Subscription fee**

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

### **E.11 Offer price determination method**

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

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

The maximum supply of the crypto-asset is set at 1,000,000,000 units. Investors should note that changes in the effective supply – including sudden increases in circulating units or unexpected burns – may affect the token's price and liquidity. The effective amount of units available on the market depends on the number of units released by the issuer or other parties at any given time, as

well as potential reductions through “burning.” As a result, the circulating supply may differ from the total supply.

### **E.13 Targeted holders**

The admission of the crypto-asset to trading is open to all types of investors.

### **E.14 Holder restrictions**

Holder restrictions are subject to the rules applicable to the crypto-asset service provider, as well as any additional restrictions that provider may impose.

### **E.15 Reimbursement notice**

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

### **E.16 Refund mechanism**

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

### **E.17 Refund timeline**

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

### **E.18 Offer phases**

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

### **E.19 Early purchase discount**

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

### **E.20 Time-limited offer**

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

### **E.21 Subscription period beginning**

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

### **E.22 Subscription period end**

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

### **E.24 Payment methods for crypto-asset purchase**

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

### **E.25 Value transfer methods for reimbursement**

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

### **E.26 Right of withdrawal**

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

### **E.27 Transfer of purchased crypto-assets**

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

### **E.28 Transfer time schedule**

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

### **E.29 Purchaser's technical requirements**

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

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

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

### **E.31 CASP identifier**

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

### **E.32 Placement form**

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

### **E.33 Trading platforms name**

The admission to trading is sought on Payward Global Solutions LTD ("Kraken").

### **E.34 Trading platforms Market identifier code (MIC)**

The Market Identifier Code (MIC) of Payward Global Solutions LTD ("Kraken") is PGSL.

### **E.35 Trading platforms access**

The token is intended to be listed on the trading platform operated by Payward Global Solutions LTD ("Kraken"). Access to this platform depends on regional availability and user eligibility under

Kraken's terms and conditions. Investors should consult Kraken's official documentation to determine whether they meet the requirements for account creation and token trading.

### **E.36 Involved costs**

The costs involved in accessing the trading platform depend on the specific fee structure and terms of the respective crypto-asset service provider. These may include trading fees, deposit or withdrawal charges, and network-related gas fees. Investors are advised to consult the applicable fee schedule of the chosen platform before engaging in trading activities.

### **E.37 Offer expenses**

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

### **E.38 Conflicts of interest**

MiCA-compliant crypto-asset service providers shall have strong measures in place in order to manage conflicts of interests. Due to the broad audience this white paper is addressing, potential investors should always check the conflicts-of-interest policy of their respective counterparty.

Crypto Risk Metrics GmbH has established, implemented, and documented comprehensive internal policies and procedures for the identification, prevention, management, and documentation of conflicts of interest in accordance with applicable regulatory requirements. These internal measures are actively applied within the organisation. For the purposes of this specific assessment and the crypto-asset covered by this white paper, a token-specific review has been conducted by Crypto Risk Metrics GmbH. Based on this individual review, no conflicts of interest relevant to this crypto-asset have been identified at the time of preparation of this white paper.

### **E.39 Applicable law**

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

### **E.40 Competent court**

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

## **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 (MiCA) but is neither classified as an electronic money token (EMT) nor 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 crypto-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 it is not subject to any stabilisation mechanism. It is neither pegged to any fiat currency nor backed by any external assets, which distinguishes it from EMTs and ARTs. Furthermore, the crypto-asset is not categorised 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, and therefore remains outside the scope of regulatory frameworks applicable to traditional financial instruments.

## **F.2 Crypto-asset functionality**

TROLL is a crypto-asset issued on the Solana blockchain. While drafting this white paper (2026-03-10), the token does not offer any technical utility, access rights, governance functions, or embedded smart contract features beyond basic transferability. It is not designed to serve a functional role within a decentralised application, service ecosystem, or protocol.

## **F.3 Planned application of functionalities**

No official roadmap or future development milestones have been publicly communicated for the project.

## **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 type of submission is NEWT , which stands for "New"

### **F.6 Crypto-asset characteristics**

The crypto-asset referred to herein is a crypto-asset other than EMTs and ARTs, and is available on the Solana network. The crypto-asset is fungible up to 6 digits after the decimal point. The crypto-asset constitutes a digital representation recorded on distributed-ledger technology and does not confer ownership, governance, profit participation, or any other legally enforceable rights. Any functionalities associated with the token are limited to potential technical features within the relevant platform environment. These functionalities do not represent contractual entitlements and may depend on future development decisions, technical design choices, and operational conditions. The crypto-asset does not embody intrinsic economic value; instead, its value, if any, is determined exclusively by market dynamics such as supply, demand, and liquidity in secondary markets.

### **F.7 Commercial name or trading name**

Long Name: "TROLL" according to the Digital Token Identifier Foundation ([www.dtif.org](http://www.dtif.org), DTI see F.13, FFG DTI see F.14 as of 2026-03-10).

### **F.8 Website of the issuer**

As no issuer is identified for the crypto-asset, there is no website of an issuer within the meaning of Regulation (EU) 2023/1114 (MiCA). General, non-issuer-related information about the underlying project is made publicly available at: <https://trololol.io/>.

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

2026-04-15

### **F.10 Publication date**

2026-04-15

### **F.11 Any other services provided by the issuer**

As the issuer of the token could not be determined due to the lack of publicly available information (2026-03-10) 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. MiCA).

### **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**

XZDKBPFTV

### **F.14 Functionally fungible group digital token identifier**

H9W8HR1JD

### **F.15 Voluntary data flag**

This white paper has been submitted as mandatory under Regulation (EU) 2023/1114.

### **F.16 Personal data flag**

Yes, this white paper contains personal data as defined in Regulation (EU) 2016/679 (GDPR).

### **F.17 LEI eligibility**

LEI eligibility cannot be assessed, as the issuer cannot be identified as a legal person.

### **F.18 Home Member State**

Germany

### **F.19 Host Member States**

Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, 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**

The crypto-asset does not grant any legally enforceable or contractual rights or obligations to its holders or purchasers. Any functionalities accessible through the underlying technology are of a purely technical or operational nature and do not constitute rights comparable to ownership, profit participation, governance, or similar entitlements known from traditional financial instruments. Accordingly, holders do not acquire any legally enforceable claim against the issuer of the crypto-asset or any third party.

### **G.2 Exercise of rights and obligations**

As the crypto-asset does not confer any legally enforceable rights or obligations, there are no applicable procedures or conditions for their exercise. Any interaction or functionality that may be available within the project's technical infrastructure – such as participation mechanisms or protocol-level features – serves operational purposes only and does not create, evidence, or constitute any contractual or statutory entitlement.

### **G.3 Conditions for modifications of rights and obligations**

As the crypto-asset does not confer any legally enforceable rights or obligations, there are no conditions or mechanisms for modifying such rights or obligations. Adjustments to the technical protocol, smart contract logic, or related systems may occur in the ordinary course of development or maintenance. Such changes do not alter the legal position of holders, as no contractual rights exist and no rights arise under applicable law or regulation. Holders should not interpret technical updates or governance-related changes as amendments to legally binding entitlements.

### **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 (2026-03-10).

### **G.5 Issuer retained crypto-assets**

Cannot be assessed. No issuer can be identified for the crypto-asset, and information on any crypto-assets retained by an issuer is not available.

### **G.6 Utility token classification**

No – the crypto-asset project does not concern utility tokens as defined in Article 3(9) of Regulation (EU) 2023/1114.

### **G.7 Key features of goods/services of utility tokens**

Not applicable, as the crypto-asset described herein is not a utility token.

## **G.8 Utility tokens redemption**

Not applicable, as the crypto-asset described herein is not a utility token.

## **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 seek admission to trading, not for the initial offer to the public.

## **G.11 Crypto-assets transfer restrictions**

The crypto-assets themselves are not subject to any technical or contractual transfer restrictions and are generally freely transferable. However, crypto-asset service providers may impose restrictions on buyers or sellers in accordance with applicable laws, internal policies or contractual terms agreed with their clients.

## **G.12 Supply adjustment protocols**

No, there are no fixed protocols that can increase or decrease the supply implemented as of 2026-03-10. Nevertheless, it is possible that the owner of the smart-contract(s) has the ability to increase or decrease the token supply in response to changes in demand. Also, it is possible to decrease the circulating supply, by transferring crypto-assets to so called "burn addresses", which are addresses that render the crypto-asset "non-transferable" after sent to those addresses.

## **G.13 Supply adjustment mechanisms**

For the crypto-asset in scope, the supply is limited to 1,000,000,000 tokens according to public information (Source: <https://solscan.io/token/5UUH9RTDiSpq6HKS6bp4NdU9PNJpXRXuiw6ShBTBhgH2#holders>, accessed 2026-03-10). Investors should note that changes in the supply of the crypto-asset can have a negative impact.

## **G.14 Token value protection schemes**

No – the crypto-asset does not have any mechanisms or schemes in place that aim to stabilise or protect its market value. Its value is determined solely by market supply and demand, and may be subject to significant volatility.

## **G.15 Token value protection schemes description**

Not applicable, as the crypto-asset in scope does not have any value protection scheme in place.

## **G.16 Compensation schemes**

No – the crypto-asset does not have any compensation scheme.

## **G.17 Compensation schemes description**

Not applicable, as the crypto-asset in scope does not have any compensation scheme in place.

## **G.18 Applicable law**

This white paper is submitted by Crypto Risk Metrics GmbH, which is established in Germany. Accordingly, this white paper shall be governed by the laws of the Federal Republic of Germany.

## **G.19 Competent court**

Any disputes arising in relation to this white paper or the admission to trading may be brought before the competent courts in Hamburg, Germany.

## **Part H – information on the underlying technology**

### **H.1 Distributed ledger technology (DTL)**

The crypto-asset in scope is implemented on the Solana SOL network following the standards described below.

### **H.2 Protocols and technical standards**

The crypto-asset that is the subject of this white paper is available on the Solana SOL network.

The following applies to Solana SOL:

The crypto-asset is implemented on the Solana blockchain, a decentralised distributed-ledger network designed to support transaction processing and the execution of on-chain programs. The network relies on a set of technical protocols, cryptographic standards, and program frameworks intended to enable secure transaction validation, deterministic execution of instructions, and interoperability across the Solana ecosystem. The most relevant technical standards and protocols are outlined below.

#### 1. Network Architecture and Core Protocols

The Solana network is structured as a peer-to-peer validator network in which independent nodes maintain the distributed ledger and process transactions.

- Proof-of-History (PoH) and Proof-of-Stake (PoS): The network utilises a hybrid architecture in which PoH functions as a cryptographic time-ordering mechanism, while PoS provides the economic security layer through validator staking.

- Tower BFT: A Byzantine fault tolerant consensus mechanism derived from Practical Byzantine Fault Tolerance (PBFT), designed to operate using the PoH time source.

- Turbine: A block propagation protocol that distributes blocks across the validator network by splitting them into smaller data fragments (“shreds”) and transmitting them through a layered tree-based structure.

- Gulf Stream: A transaction forwarding mechanism that routes transactions directly to upcoming block producers and limiting the need for a global transaction mempool.
- Sealevel: A parallel transaction execution engine that enables non-conflicting transactions and programs to execute simultaneously across multiple processing threads.

Together, these mechanisms support transaction processing while maintaining a synchronised and verifiable ledger state across participating validator nodes.

## 2. Address and Cryptographic Standards

Accounts and transactions on the Solana network rely on defined cryptographic primitives and address formats.

- Account Addresses: Accounts are identified by 32-byte public keys derived from the Ed25519 digital signature scheme.
- Transaction Signatures: Transactions are authorised through Ed25519 signatures associated with the account owner's keypair.
- Hashing: Sequential SHA-256 hashing is used within the Proof-of-History mechanism to generate a verifiable ordering of events.
- Program Derived Addresses (PDAs): Deterministically generated addresses derived through hashing procedures that ensure the resulting address does not correspond to a private key, thereby enabling secure program-controlled accounts.

These cryptographic mechanisms provide the basis for transaction authentication, deterministic account control, and verifiable execution of on-chain instructions.

## 3. Networking and Data Transmission Standards

Communication between validator nodes and network participants follows defined networking protocols and technical constraints.

- QUIC protocol: Used for validator communication and transaction forwarding, enabling congestion control and improved reliability under high throughput conditions.
- UDP-based propagation: Utilised for distributing block fragments ("shreds") across the network through the Turbine protocol.
- Transaction size limits: The maximum transaction size of approximately 1,232 bytes is aligned with the IPv6 minimum transmission unit (MTU) after accounting for network headers, and is intended to enable atomic transmission without fragmentation.

- JSON-RPC interfaces: Standardised APIs used by wallets, applications, and infrastructure providers to submit transactions and query blockchain state.

These standards support interoperability between network nodes, developer infrastructure, and user-facing applications interacting with the Solana ledger.

#### 4. Token and Program Standards (Solana Program Library)

Tokens issued on the Solana network are commonly implemented through the Solana Program Library (SPL) Token Program, an on-chain program that defines standardised token behaviour.

Within this framework:

- A token type is represented by a mint account, which defines parameters such as total supply and mint authority.

- Individual token balances are stored in token accounts, which hold balances associated with a specific mint and owner address.

- Interactions with tokens occur through instructions executed by the SPL Token Program rather than through separate token-specific smart contracts.

These programmatic standards enable consistent token management across the Solana ecosystem. In addition, projects may optionally integrate the Metaplex Token Metadata Program, which stores metadata such as token name, symbol, and external resource references to improve compatibility with wallets and other ecosystem infrastructure. Metadata programs do not alter the core functionality of the token itself.

#### 5. Protocol Development and Improvement Standards

Technical changes to the Solana protocol may be proposed and discussed through Solana Improvement Method and Design (SIMD) proposals. These proposals document suggested modifications to protocol behaviour, economic parameters, or technical limits. Accepted changes may be implemented through updates to validator software and related developer tooling used by network participants.

### **H.3 Technology used**

The crypto-asset that is the subject of this white paper is available on the Solana SOL network.

The following applies to Solana SOL:

1. Solana-Compatible Wallets: The tokens are supported by all wallets compatible with Solana's Token Program.

2. Decentralised Ledger: The Solana blockchain acts as a decentralised ledger for all token transactions, with the intention of preserving an unalterable record of token transfers and ownership in order to ensure both transparency and security.

3. SPL Token Program: The SPL (Solana Program Library) Token Program is an inherent Solana smart contract built to create and manage new types of tokens (so called mints). This differs significantly from ERC-20 on Ethereum, because a single smart contract that forms part of Solana's core functionality and is open source is responsible for all such tokens. This ensures a high uniformity across tokens at the cost of flexibility.

4. Blockchain Scalability: With its intended capacity for processing a lot of transactions per second and in most cases low fees, Solana is intended to enable efficient token transactions, maintaining high performance even during peak network usage.

Security Protocols for Asset Custody and Transactions:

1. Private Key Management: To safeguard their token holdings, users must securely store their wallet's private keys and recovery phrases.

2. Cryptographic Integrity: Solana employs elliptic curve cryptography to validate and execute transactions securely, intended to ensure the integrity of all transfers.

#### **H.4 Consensus mechanism**

The crypto-asset that is the subject of this white paper is available on the Solana SOL network.

The following applies to Solana SOL:

Solana uses a combination of Proof of History (PoH) and Proof of Stake (PoS). The core concepts of the mechanism are intended to work as follows:

Core Concepts

1. Proof of History (PoH):

Time-Stamped Transactions: PoH is a cryptographic technique that timestamps transactions, thereby creating a historical record that proves that an event has occurred at a specific moment in time.

Verifiable Delay Function: PoH uses a Verifiable Delay Function (VDF) to generate a unique hash that includes the transaction and the time it was processed. This sequence of hashes provides a verifiable order of events, enabling the network to efficiently agree on the sequence of transactions.

2. Proof of Stake (PoS):

**Validator Selection:** Validators are chosen to produce new blocks based on the number of SOL tokens they have staked. The more tokens staked, the higher the chance of being selected to validate transactions and produce new blocks.

**Delegation:** Token holders can delegate their SOL tokens to validators, earning rewards proportional to their stake while contributing to the network's security.

## Consensus Process

### 1. Transaction Validation:

Transactions are broadcasted to the network and collected by validators. Each transaction is validated to ensure it meets the network's criteria, such as having correct signatures and sufficient funds.

### 2. PoH Sequence Generation:

A validator generates a sequence of hashes using PoH, each containing a timestamp and the previous hash. This process creates a historical record of transactions, establishing a cryptographic clock for the network.

### 3. Block Production:

The network uses PoS to select a leader validator based on their stake. The leader is responsible for bundling the validated transactions into a block. The leader validator uses the PoH sequence to order transactions within the block, ensuring that all transactions are processed in the correct order.

### 4. Consensus and Finalisation:

Other validators verify the block produced by the leader validator. They check the correctness of the PoH sequence and validate the transactions within the block. Once the block is verified, it is added to the blockchain. Validators sign off on the block, and it is considered finalised.

## Security and Economic Incentives

### 1. Incentives for Validators:

**Block Rewards:** Validators earn rewards for producing and validating blocks. These rewards are distributed in SOL tokens and are proportional to the validator's stake and performance.

Transaction Fees: Validators also earn transaction fees from the transactions included in the blocks they produce. These fees provide an additional incentive for validators to process transactions efficiently.

## 2. Security:

Staking: Validators must stake SOL tokens to participate in the consensus process. This staking acts as collateral, incentivizing validators to act honestly. If a validator behaves maliciously or fails to perform, they risk losing their staked tokens.

Delegated Staking: Token holders can delegate their SOL tokens to validators, intended to enhance network security and decentralisation. Delegators share in the rewards and are incentivised to choose reliable validators.

## 3. Economic Penalties:

Slashing (planned): Validators can be penalised for malicious behavior, such as double-signing or producing invalid blocks. This penalty, known as slashing, results in the loss of a portion of the staked tokens, discouraging dishonest actions.

## **H.5 Incentive mechanisms and applicable fees**

The crypto-asset that is the subject of this white paper is available on the Solana SOL network.

The following applies to Solana SOL:

### 1. Validators:

Staking Rewards: Validators are chosen based on the number of SOL tokens they have staked. They earn rewards for producing and validating blocks, which are distributed in SOL. The more tokens staked, the higher the chances of being selected to validate transactions and produce new blocks.

Transaction Fees: Validators earn a portion of the transaction fees paid by users for the transactions they include in the blocks. This is intended to provide an additional financial incentive for validators to process transactions efficiently and maintain the network's integrity.

### 2. Delegators:

Delegated Staking: Token holders who do not wish to run a validator node can delegate their SOL tokens to a validator. In return, delegators share the rewards earned by the validators. This is intended to encourage widespread participation in securing the network and to support decentralisation.

### 3. Economic Security:

**Slashing:** Validators can be penalised for malicious behavior, such as producing invalid blocks or being frequently offline. This penalty, known as slashing, involves the loss of a portion of their staked tokens. Slashing is intended to deter dishonest actions and ensures that validators act in the best interest of the network.

**Opportunity Cost:** By staking SOL tokens, validators and delegators lock up their tokens, which could otherwise be used or sold. This opportunity cost is intended to incentivise participants to act honestly to earn rewards and avoid penalties.

## Fees Applicable on the Solana Blockchain

### 1. Transaction Fees:

Solana is designed to handle a high throughput of transactions, which is intended to keep the fees low and predictable.

**Fee Structure:** Fees are paid in SOL and are used to compensate validators for the resources they expend to process transactions. This includes computational power and network bandwidth.

### 2. Rent Fees:

**State Storage:** Solana charges so called "rent fees" for storing data on the blockchain. These fees are designed to discourage inefficient use of state storage and encourage developers to clean up unused state. Rent fees are intended to help maintain the efficiency and performance of the network.

### 3. Smart Contract Fees:

**Execution Costs:** Similar to transaction fees, fees for deploying and interacting with smart contracts on Solana are based on the computational resources required. This is intended to ensure that users are charged proportionally for the resources they consume.

## **H.6 Use of distributed ledger technology**

No – DLT is not operated by the issuer, the offeror, the person seeking admission to trading, or any third-party acting on their behalf.

## **H.7 DLT functionality description**

Not applicable, as the DLT is not operated by the issuer, the offeror, the person seeking admission to trading, or any third-party acting on their behalf.

## **H.8 Audit**

Given the breadth of the term "technology", it cannot be confirmed that all elements or aspects of the technology employed have undergone a comprehensive and systematic technical examination.

Accordingly, no comprehensive audit of the technology used can be confirmed. This white paper focuses primarily on risk-related aspects and therefore does not imply, nor should it be interpreted as implying, that a full assessment or audit of all technological elements has been conducted.

## **H.9 Audit outcome**

Not applicable, as no comprehensive audit of the technology used has been conducted or can be confirmed.

# **Part I – Information on risks**

## **I.1 Offer-related risks**

### 1. Regulatory and Compliance

Regulatory frameworks applicable to crypto-asset services in the European Union and in third countries are evolving. Supervisory authorities may introduce, interpret, or enforce rules that affect (i) the eligibility of this crypto-asset for admission to trading, (ii) the conditions under which a crypto-asset service provider may offer trading, custody, or transfer services for it, or (iii) the persons or jurisdictions to which such services may be provided. As a result, the crypto-asset service provider admitting this crypto-asset to trading may be required to suspend, restrict, or terminate trading or withdrawals for regulatory reasons, even if the crypto-asset itself continues to function on its underlying network.

### 2. Trading venue and connection risk

Trading in the crypto-asset depends on the uninterrupted operation of the trading venues on which it is listed and, where applicable, on its technical connections to external liquidity sources or venues. Interruptions such as system downtime, maintenance, faulty integrations, API changes, or failures at an external venue can temporarily prevent order placement, execution, deposits, or withdrawals, even when the underlying blockchain is functioning. In addition, trading platforms in emerging markets may operate under differing governance, compliance, and oversight standards, which can increase the risk of operational failures or disorderly market conditions.

### 3. Market formation and liquidity conditions

The price and tradability of the crypto-asset depend on actual trading activity on the venues to which the service provider is connected, whether centralised exchanges (CEXs) or decentralised exchanges (DEXs). Trading volumes may at times be low, order books thin, or liquidity concentrated on a single venue. In such conditions, buy or sell orders may not be executed in full or may be executed only at a less favourable price, resulting in slippage.

**Volatility:** The market price of the crypto-asset may fluctuate significantly over short periods, including for reasons that are not linked to changes in the underlying project or protocol. Periods of limited liquidity, shifts in overall market sentiment, or trading on only a small number of CEXs or DEXs can amplify these movements and lead to higher slippage when orders are executed. As a result, investors may be unable to sell the crypto-asset at or close to a previously observed price, even where no negative project-specific event has occurred.

#### 4. Counterparty and service provider dependence

The admission of the crypto-asset to trading may rely on several external parties, such as connected centralised or decentralised trading venues, liquidity providers, brokers, custodians, or technical integrators. If any of these counterparties fail to perform, suspend their services, or apply internal restrictions, the trading, deposit, or withdrawal of the crypto-asset on the listing crypto-asset service provider can be interrupted or halted.

Quality of counterparties: Trading venues and service providers in certain jurisdictions may operate under regulatory or supervisory standards that are lower or differently enforced than those applicable in the European Union. In such environments, deficiencies in governance, risk management, or compliance may remain undetected, which increases the probability of abrupt service interruptions, investigations, or forced wind-downs.

Delisting and service suspension: The crypto-asset's availability may depend on the internal listing decisions of these counterparties. A delisting or suspension on a key connected venue can materially reduce liquidity or make trading temporarily impossible on the admitting service provider, even if the underlying crypto-asset continues to function.

Insolvency of counterparties: If a counterparty involved in holding, routing, or settling the crypto-asset becomes insolvent, enters restructuring, or is otherwise subject to resolution measures, assets held or processed by that counterparty may be frozen, become temporarily unavailable, or be recoverable only in part or not at all, which can result in losses for clients whose positions were maintained through that counterparty. This risk applies in particular where client assets are held on an omnibus basis or where segregation is not fully recognised in the counterparty's jurisdiction.

#### 5. Operational and information risks

Due to the irrevocability of blockchain transactions, incorrect transaction approvals or the use of wrong networks or addresses will typically make the transferred funds irrecoverable. Because trading may also rely on technical connections to other venues or service providers, downtime or faulty code in these connections can temporarily block trading, deposits, or withdrawals even when the underlying blockchain is functioning. In addition, different groups of market participants may have unequal access to technical, governance, or project-related information, which can lead to information asymmetry and place less informed investors at a disadvantage when making trading decisions.

#### 6. Market access and liquidity concentration risk

If the crypto-asset is only available on a limited number of trading platforms or through a single market-making entity, this may result in reduced liquidity, greater price volatility, or periods of inaccessibility for retail holders.

### **1.2 Issuer-related risks**

#### 1. Insolvency of the issuer

As with any commercial entity, the issuer may face insolvency risks. These may result from insufficient funding, low market interest, mismanagement, or external shocks (e.g. pandemics, armed conflicts). In such a case, ongoing development, support, and governance of the project may cease, potentially affecting the viability and tradability of the crypto-asset.

## 2. Legal and regulatory risks

The issuer operates in a dynamic and evolving regulatory environment. Failure to comply with applicable laws or regulations in relevant jurisdictions may result in enforcement actions, penalties, or restrictions on the project's operations. These may negatively impact the crypto-asset's availability, market acceptance, or legal status.

## 3. Operational risks

The issuer may fail to implement adequate internal controls, risk management, or governance processes. This can result in operational disruptions, financial losses, delays in updating the white paper, or reputational damage.

## 4. Governance and decision-making

The issuer's management body is responsible for key strategic, operational, and disclosure decisions. Ineffective governance, delays in decision-making, or lack of resources may compromise the stability of the project and its compliance with MiCA requirements. High concentration of decision-making authority or changes in ownership/control can amplify these risks.

## 5. Reputational risks

The issuer's reputation may be harmed by internal failures, external accusations, or association with illicit activity. Negative publicity can reduce trust in the issuer and impact the perceived legitimacy or value of the crypto-asset.

## 6. Counterparty dependence

The issuer may depend on third-party providers for certain core functions, such as technology development, marketing, legal advice, or infrastructure. If these partners discontinue their services, change ownership, or underperform, the issuer's ability to operate the project or maintain investor communication may be impaired. This could disrupt project continuity or undermine market confidence, ultimately affecting the crypto-asset's value.

### **I.3 Crypto-assets-related risks**

#### 1. Valuation risk

The crypto-asset does not represent a claim, nor is it backed by physical assets or legal entitlements. Its market value is driven solely by supply and demand dynamics and may fluctuate

significantly. In the absence of fundamental value anchors, such assets can lose their entire market value within a very short time. Historical market behaviour has shown that some types of crypto-assets have become worthless. Investors should be aware that this crypto-asset may lose all of its value.

## 2. Market volatility risk

Crypto-asset prices can fluctuate sharply due to changes in market sentiment, macroeconomic conditions, regulatory developments, or technology trends. Such volatility may result in rapid and significant losses. Holders should be prepared for the possibility of losing the full amount invested.

## 3. Liquidity and price-determination risk

Low trading volumes, fragmented trading across venues, or the absence of active market makers can restrict the ability to buy or sell the crypto-asset. In such situations, it is not guaranteed that an observable market price will exist at all times. Spreads may widen materially, and orders may only be executable under unfavourable conditions, which can make liquidation costly or temporarily impossible.

## 4. Crypto-asset security risk

Loss or theft of private keys, unauthorised access to wallets, or failures of custodial or exchange service providers can result in the irreversible loss of assets. Because blockchain transactions are final, recovery of funds after a compromise is generally impossible.

## 5. Fraud and scam risk

The pseudonymous and irreversible nature of blockchain transactions can attract fraudulent schemes. Typical forms include fake or unauthorised crypto-assets imitating established ones, phishing attempts, deceptive airdrops, or social-engineering attacks. Investors should exercise caution and verify the authenticity of counterparties and information sources.

## 6. Legal and regulatory reclassification risk

Legislative or regulatory changes in the European Union or in the Member State where the crypto-asset is admitted to trading may alter its legal classification, permitted uses, or tradability. In third countries, the crypto-asset may be treated as a financial instrument or security, which can restrict its offering, trading, or custody.

## 7. Absence of investor protection

The crypto-asset is not covered by investor-compensation or deposit-guarantee schemes. In the event of loss, fraud, or insolvency of a service provider, holders may have no access to recourse mechanisms typically available in regulated financial markets.

## 8. Counterparty risk

Reliance on third-party exchanges, custodians, or intermediaries exposes holders to operational failures, insolvency, or fraud of these parties. Investors should conduct due diligence on service providers, as their failure may lead to the partial or total loss of held assets.

## 9. Reputational risk

Negative publicity related to security incidents, misuse of blockchain technology, or associations with illicit activity can damage public confidence and reduce the crypto-asset's market value.

## 10. Community and sentiment risk

Because the crypto-asset's perceived relevance and expected future use depend largely on community engagement and the prevailing sentiment, a loss of public interest, negative coverage or reduced activity of key contributors can materially reduce market demand.

## 11. Macroeconomic and interest-rate risk

Fluctuations in interest rates, exchange rates, general market conditions, or overall market volatility can influence investor sentiment towards digital assets and affect the crypto-asset's market value.

## 12. Taxation risk

Tax treatment varies across jurisdictions. Holders are individually responsible for complying with all applicable tax laws, including the reporting and payment of taxes arising from the acquisition, holding, or disposal of the crypto-asset.

## 13. Anti-money-laundering and counter-terrorist financing risk

Wallet addresses or transactions connected to the crypto-asset may be linked to sanctioned or illicit activity. Regulatory responses to such findings may include transfer restrictions, reporting obligations, or the freezing of assets on certain venues.

## 14. Market-abuse risk

Due to limited oversight and transparency, crypto-assets may be vulnerable to market-abuse practices such as spoofing, pump-and-dump schemes, or insider trading. Such activities can distort prices and expose holders to sudden losses.

## 15. Legal ownership and jurisdictional risk

Depending on the applicable law, holders of the crypto-asset may not have enforceable ownership rights or effective legal remedies in cases of disputes, fraud, or service failure. In certain

jurisdictions, access to exchanges or interfaces may be restricted by regulatory measures, even if on-chain transfer remains technically possible.

#### 16. Concentration risk

A large proportion of the total supply may be held by a small number of holders. This can enable market manipulation, governance dominance, or sudden large-scale liquidations that adversely affect market stability, price levels, and investor confidence.

### **I.4 Project implementation-related risks**

As this white paper relates to admission to trading of the crypto-asset, the risk description below reflects general implementation risks typically associated with crypto-asset projects and relevant for the crypto-asset service provider. The party admitting the crypto-asset to trading is not involved in the project's implementation and does not assume responsibility for its governance, funding, or execution.

Delays, failures, or changes in the implementation of the project as outlined in its public roadmap or technical documentation may negatively impact the perceived credibility or usability of the crypto-asset. This includes risks related to project governance, resource allocation, technical delivery, and team continuity.

Key-person risk: The project may rely on a limited number of individuals for development, maintenance, or strategic direction. The departure, incapacity, or misalignment of these individuals may delay or derail the implementation.

Timeline and milestone risk: Project milestones may not be met as announced. Delays in feature releases, protocol upgrades, or external integrations can undermine market confidence and affect the adoption, use, or value of the crypto-asset.

Delivery risk: Even if implemented on time, certain functionalities or integrations may not perform as intended or may be scaled back during execution, limiting the crypto-asset's practical utility.

### **I.5 Technology-related risks**

As this white paper relates to admission to trading of the crypto-asset, the following risks concern the underlying distributed ledger technology (DLT), its supporting infrastructure, and related technical dependencies. Failures or vulnerabilities in these systems may affect the availability, integrity, or transferability of the crypto-asset.

#### 1. Blockchain dependency risk

The functionality of the crypto-asset depends on the continuous and stable operation of the blockchain(s) on which it is issued. Network congestion, outages, or protocol errors may temporarily or permanently disrupt on-chain transactions. Extended downtime or degradation in network performance can affect trading, settlement, or the usability of the crypto-asset.

## 2. Smart contract vulnerability risk

The smart contract that defines the crypto-asset's parameters or governs its transfers may contain coding errors or security vulnerabilities. Exploitation of such weaknesses can result in unintended token minting, permanent loss of funds, or disruption of token functionality. Even after external audits, undetected vulnerabilities may persist due to the immutable nature of deployed code.

## 3. Wallet and key-management risk

The custody of crypto-assets relies on secure private key management. Loss, theft, or compromise of private keys results in irreversible loss of access. Custodians, trading venues, or wallet providers may be targeted by cyberattacks. Compatibility issues between wallet software and changes to the blockchain protocol (e.g. network upgrades) can further limit user access or the ability to transfer the crypto-asset.

Outdated or vulnerable wallet software:

Users relying on outdated, unaudited, or unsupported wallet software may face compatibility issues, security vulnerabilities, or failures when interacting with the blockchain. Failure to update wallet software in line with protocol developments can result in transaction errors, loss of access, or exposure to known exploits.

## 4. Network security risks

Attack risks: Blockchains may be subject to denial-of-service (DoS) attacks, 51% attacks, or other exploits targeting the consensus mechanism. These can delay transactions, compromise finality, or disrupt the accurate recording of transfers.

Centralisation concerns: Despite claims of decentralisation, a relatively small number of validators or a high concentration of stake may increase the risk of collusion, censorship, or coordinated network downtime, which can affect the resilience and operational reliability of the crypto-asset.

## 5. Bridge and interoperability risk

Where tokens can be bridged or wrapped across multiple blockchains, vulnerabilities in bridge protocols, validator sets, or locking mechanisms may result in loss, duplication, or misrepresentation of assets. Exploits or technical failures in these systems can instantly impact circulating supply, ownership claims, or token fungibility across chains.

## 6. Forking and protocol-upgrade risk

Network upgrades or disagreements among node operators or validators can result in blockchain "forks", where the blockchain splits into two or more incompatible versions that continue separately from a shared past. This may lead to duplicate token representations or incompatibilities between exchanges and wallets. Until consensus stabilises, trading or transfers may be disrupted or

misaligned. Such situations may be difficult for retail holders to navigate, particularly when trading platforms or wallets display inconsistent token information.

#### 7. Economic-layer and abstraction risk

Mechanisms such as gas relayers, wrapped tokens, or synthetic representations may alter the transaction economics of the underlying token. Changes in transaction costs, token demand, or utility may reduce its usage and weaken both its economic function and perceived value within its ecosystem.

#### 8. Spam and network-efficiency risk

High volumes of low-value (“dust”) or automated transactions may congest the network, slow validation times, inflate ledger size, and raise transaction costs. This can impair performance, reduce throughput, and expose address patterns to analysis, thereby reducing network efficiency and privacy.

#### 9. Front-end and access-interface risk

If users rely on centralised web interfaces or hosted wallets to interact with the blockchain, service outages, malicious compromises, or domain expiries affecting these interfaces may block access to the crypto-asset, even while the blockchain itself remains fully functional. Dependence on single web portals introduces a critical point of failure outside the DLT layer.

#### 10. Decentralisation claim risk

While the technical infrastructure may appear distributed, the actual governance or economic control of the project may lie with a small set of actors. This disconnect between marketing claims and structural reality can lead to regulatory scrutiny, reputational damage, or legal uncertainty – especially if the project is presented as ‘community-governed’ without substantiation.

### **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

39120077M9TG001FE242

## S.3 Name of the cryptoasset

TROLL

## S.4 Consensus Mechanism

The crypto-asset that is the subject of this white paper is available on the Solana SOL network.

The following applies to Solana SOL:

Solana uses a combination of Proof of History (PoH) and Proof of Stake (PoS). The core concepts of the mechanism are intended to work as follows:

### Core Concepts

#### 1. Proof of History (PoH):

Time-Stamped Transactions: PoH is a cryptographic technique that timestamps transactions, thereby creating a historical record that proves that an event has occurred at a specific moment in time.

Verifiable Delay Function: PoH uses a Verifiable Delay Function (VDF) to generate a unique hash that includes the transaction and the time it was processed. This sequence of hashes provides a verifiable order of events, enabling the network to efficiently agree on the sequence of transactions.

#### 2. Proof of Stake (PoS):

Validator Selection: Validators are chosen to produce new blocks based on the number of SOL tokens they have staked. The more tokens staked, the higher the chance of being selected to validate transactions and produce new blocks.

Delegation: Token holders can delegate their SOL tokens to validators, earning rewards proportional to their stake while contributing to the network's security.

### Consensus Process

#### 1. Transaction Validation:

Transactions are broadcasted to the network and collected by validators. Each transaction is validated to ensure it meets the network's criteria, such as having correct signatures and sufficient funds.

## 2. PoH Sequence Generation:

A validator generates a sequence of hashes using PoH, each containing a timestamp and the previous hash. This process creates a historical record of transactions, establishing a cryptographic clock for the network.

## 3. Block Production:

The network uses PoS to select a leader validator based on their stake. The leader is responsible for bundling the validated transactions into a block. The leader validator uses the PoH sequence to order transactions within the block, ensuring that all transactions are processed in the correct order.

## 4. Consensus and Finalisation:

Other validators verify the block produced by the leader validator. They check the correctness of the PoH sequence and validate the transactions within the block. Once the block is verified, it is added to the blockchain. Validators sign off on the block, and it is considered finalised.

## Security and Economic Incentives

### 1. Incentives for Validators:

**Block Rewards:** Validators earn rewards for producing and validating blocks. These rewards are distributed in SOL tokens and are proportional to the validator's stake and performance.

**Transaction Fees:** Validators also earn transaction fees from the transactions included in the blocks they produce. These fees provide an additional incentive for validators to process transactions efficiently.

### 2. Security:

**Staking:** Validators must stake SOL tokens to participate in the consensus process. This staking acts as collateral, incentivizing validators to act honestly. If a validator behaves maliciously or fails to perform, they risk losing their staked tokens.

**Delegated Staking:** Token holders can delegate their SOL tokens to validators, intended to enhance network security and decentralisation. Delegators share in the rewards and are incentivised to choose reliable validators.

### 3. Economic Penalties:

Slashing (planned): Validators can be penalised for malicious behavior, such as double-signing or producing invalid blocks. This penalty, known as slashing, results in the loss of a portion of the staked tokens, discouraging dishonest actions.

## **S.5 Incentive Mechanisms and Applicable Fees**

The crypto-asset that is the subject of this white paper is available on the Solana SOL network.

The following applies to Solana SOL:

### 1. Validators:

Staking Rewards: Validators are chosen based on the number of SOL tokens they have staked. They earn rewards for producing and validating blocks, which are distributed in SOL. The more tokens staked, the higher the chances of being selected to validate transactions and produce new blocks.

Transaction Fees: Validators earn a portion of the transaction fees paid by users for the transactions they include in the blocks. This is intended to provide an additional financial incentive for validators to process transactions efficiently and maintain the network's integrity.

### 2. Delegators:

Delegated Staking: Token holders who do not wish to run a validator node can delegate their SOL tokens to a validator. In return, delegators share the rewards earned by the validators. This is intended to encourage widespread participation in securing the network and to support decentralisation.

### 3. Economic Security:

Slashing: Validators can be penalised for malicious behavior, such as producing invalid blocks or being frequently offline. This penalty, known as slashing, involves the loss of a portion of their staked tokens. Slashing is intended to deter dishonest actions and ensures that validators act in the best interest of the network.

Opportunity Cost: By staking SOL tokens, validators and delegators lock up their tokens, which could otherwise be used or sold. This opportunity cost is intended to incentivise participants to act honestly to earn rewards and avoid penalties.

## Fees Applicable on the Solana Blockchain

### 1. Transaction Fees:

Solana is designed to handle a high throughput of transactions, which is intended to keep the fees low and predictable.

Fee Structure: Fees are paid in SOL and are used to compensate validators for the resources they expend to process transactions. This includes computational power and network bandwidth.

## 2. Rent Fees:

State Storage: Solana charges so called "rent fees" for storing data on the blockchain. These fees are designed to discourage inefficient use of state storage and encourage developers to clean up unused state. Rent fees are intended to help maintain the efficiency and performance of the network.

## 3. Smart Contract Fees:

Execution Costs: Similar to transaction fees, fees for deploying and interacting with smart contracts on Solana are based on the computational resources required. This is intended to ensure that users are charged proportionally for the resources they consume.

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

2025-03-13

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

2026-03-13

### **S.8 Energy consumption**

571.25923 kWh/a

### **S.9 Energy consumption sources and methodologies**

The energy consumption associated with this crypto-asset is aggregated of multiple contributing components, primarily the underlying blockchain network and the execution of token-specific operations. To determine the energy consumption of a token, the energy consumption of the underlying blockchain network Solana is calculated first. A proportionate share of that energy use is then attributed to the token based on its activity level within the network (e.g. transaction volume, contract execution).

The Functionally Fungible Group Digital Token Identifier (FFG DTI) is used to determine all technically equivalent implementations of the crypto-asset in scope.

Estimates regarding hardware types, node distribution, and the number of network participants are based on informed assumptions, supported by best-effort verification against available empirical data. Unless robust evidence suggests otherwise, participants are assumed to act in an economically rational manner. In line with the precautionary principle, conservative estimates are applied where uncertainty exists – that is, estimates tend towards the higher end of potential environmental impact.

### **S.10 Renewable energy consumption**

38.5831139958 %

### **S.11 Energy intensity**

0.00000 kWh

### **S.12 Scope 1 DLT GHG emissions – Controlled**

0.00000 tCO<sub>2</sub>e/a

### **S.13 Scope 2 DLT GHG emissions – Purchased**

0.19012 tCO<sub>2</sub>e/a

### **S.14 GHG intensity**

0.00000 kgCO<sub>2</sub>e

### **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 incentivisation 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 incentivisation 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.

