CRYPTO RISK METRICS
DON'T TRUST. VERIFY.

White paper drafted under the European Markets in Crypto-Assets Regulation (EU) 2023/1114 for FFG SGD9NLTRG

Preamble

00. Table of Contents

01. Date of notification

This white paper was notified on 2026-07-09.

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 DOT crypto-asset referred to in this white paper is a crypto-asset other than EMTs and ARTs. It is natively implemented on the Polkadot network and is also available on the Astar network. DOT was previously available on the Composable Finance network, according to the DTI FFG shown in section F.14, as of 2026-07-01. The maximum supply of DOT is 2,100,000,000 tokens. The Polkadot genesis block was produced on 26 May 2020 at 15:36:21 UTC. The network was initially launched as a Proof of Authority (PoA) network with governance controlled by a Sudo (super-user) account. On 18 June 2020, the network transitioned to Nominated Proof of Stake (NPoS). The Sudo module was removed on 20 July 2020, transferring governance to the on-chain governance system and DOT holders (source: https://wiki.polkadot.com/general/faq/, accessed 2026-07-01). As Astar is a Polkadot parachain, DOT is transferred to the network through Cross-Consensus Messaging (XCM) rather than being separately issued or deployed.

According to publicly available information, Polkadot is a layer-0, open-source multichain protocol that allows independent blockchains, called parachains, to interoperate while sharing the security and consensus of a central relay chain. The relay chain coordinates cross-chain messaging and consensus; parachains obtain access to relay-chain block space by bonding or purchasing DOT.

DOT holders use the token to secure the network through staking under Nominated Proof of Stake, to participate in OpenGov, the decentralised on-chain governance system through which token holders can propose and vote on protocol changes, and to bond or purchase coretime, giving parachains access to relay-chain resources.

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, and 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,

DE-HH

A.4 Head office

The head office is identical to the registered address.

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 39120077M9TG0O1FE242.

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

Identity	Function	Business Address
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 preliminary unaudited management information for the financial year 2025, revenues are expected to have exceeded EUR 800,000, while preliminary net profit is expected to exceed EUR 100,000.

These figures are not audited and are not based on a finalised annual financial statement. Accordingly, they remain subject to finalisation and may differ from the figures ultimately reported in the annual financial statements.

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

Based on the available information, the DOT crypto-asset does not appear to be issued through a traditional corporate, foundation, or comparable legal entity structure. This does not prevent the issuer from being sufficiently identifiable in the future. In certain cases, legal entities, organised development teams, or natural persons may take central positions around a crypto-asset project and may therefore be considered relevant for the assessment of the issuer or issuer-like functions. In relation to Polkadot, Dr. Gavin Wood, as a natural person, appears to have a close connection to the crypto-asset as its principal founder, together with the co-founders Robert Habermeier and Peter Czaban. The initial distribution of DOT through the token sale, which concluded on 2017-10-27, was conducted by the Web3 Foundation, a foundation established in Zug, Switzerland, and the underlying technology has been developed principally by Parity Technologies Limited, that was commissioned for that purpose. Structures such as the Polkadot on-chain governance system (OpenGov), through which holders of the crypto-asset direct changes to the network, could also be

identified. Such persons or structures may therefore be relevant for the assessment of issuer-like functions in relation to the DOT crypto-asset.

B.3 Legal form

Not applicable.

B.4 Registered address

Not applicable.

Not applicable.

Not applicable.

B.5 Head office

Not applicable.

Not applicable.

Not applicable.

B.6 Registration date

Not applicable, as no registered legal-entity issuer has been identified.

B.7 Legal entity identifier

Not applicable, as no registered legal-entity issuer has been identified.

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

Identity	Function	Business Address
Not applicable	Not applicable	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 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: "Polkadot DOT", Short Name: "DOT" according to the Digital Token Identifier Foundation (www.dtif.org, DTI see F.13, FFG DTI see F.14 as of 2026-07-01).

D.2 Crypto-assets name

Long Name: "Polkadot DOT" according to the Digital Token Identifier Foundation (www.dtif.org, DTI see F.13, FFG DTI see F.14 as of 2026-07-01).

D.3 Abbreviation

Short Name: "DOT" according to the Digital Token Identifier Foundation (www.dtif.org, DTI see F.13, FFG DTI see F.14 as of 2026-07-01).

D.4 Crypto-asset project description

According to publicly available information (sources: Web3 Foundation lightpaper, 2020-04; https://wiki.polkadot.com/, https://docs.polkadot.com/, accessed 2026-07-01), Polkadot is an open-source, public multichain protocol that allows independent blockchains to interoperate while sharing a common security and consensus layer. Its stated objective is to let separate, specialised blockchains exchange data and value with one another at scale, so that applications can operate across chains rather than being confined to a single network. The central chain, known as the Relay Chain, coordinates the security, consensus and cross-chain messaging of the network, while connected chains focus on their own use cases.

The long-term evolution of the project depends on governance outcomes and technical, economic and regulatory considerations, and all future developments remain subject to change.

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
Web 3.0 Technologies Stiftung (Web3 Foundation)	Other person involved in implementation	Gotthardstrasse 3, 6300 Zug, Switzerland	Switzerland
Parity Technologies Limited	Other person involved in implementation	c/o Ignition Law, 1 Sans Walk, London, England, EC1R 0LT	United Kingdom

Name of person	Type of person	Business address of person	Domicile of company
Polkadot Community Foundation	Other person involved in implementation	Cannot be found	Cayman Islands
Gavin Wood	Other person involved in implementation	Cannot be found	Cannot be found
Robert Habermeier	Other person involved in implementation	Cannot be found	Cannot be found
Peter Czaban	Other person involved in implementation	Cannot be found	Cannot be found
Gavin Hoyle	Other person involved in implementation	Cannot be found	Cannot be found
Aeron Morgan Buchanan	Other person involved in implementation	Cannot be found	Cannot be found
Thomas Fecker Boxler	Other person involved in implementation	Cannot be found	Cannot be found
Stefan Mueller	Other person involved in implementation	Cannot be found	Cannot be found
Björn Wagner	Other person involved in implementation	Cannot be found	Cannot be found
Robert John Wood	Other person involved in implementation	c/o Ignition Law, 1 Sans Walk, London, England, EC1R 0LT	United Kingdom
Simon Littlejohns	Other person involved in implementation	c/o Ignition Law, 1 Sans Walk, London, England, EC1R 0LT	United Kingdom
Parity Technologies	Other person involved in implementation	Glogauer Straße 6, 10999 Berlin, Germany	Germany
Antony Lias		Glogauer Straße 6, 10999 Berlin, Germany	Germany

Name of person	Type of person	Business address of person	Domicile of company
	Other person involved in implementation		
Jessica Lynn Grenier	Other person involved in implementation	Glogauer Straße 6, 10999 Berlin, Germany	Germany

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

This section provides an overview of the historical developments related to the DOT crypto-asset and a description of planned or anticipated project milestones as publicly communicated. All forward-looking elements are subject to significant uncertainty. They do not constitute commitments, assurances, or guarantees, and may be modified, delayed, or discontinued at any time. The implementation of past milestones cannot be assumed to continue in the future, and future changes may have adverse effects for token holders.

There is no formally published multi-year roadmap for the DOT crypto-asset. Based on public information (sources: https://wiki.polkadot.com/, https://polkadot.polkassembly.io/, https://www.opengov.watch/polkadot-roadmap; accessed 2026-07-01), several protocol upgrades, ecosystem initiatives, and crypto-asset-related developments have been communicated that affect the evolution of the Polkadot protocol and the role of the DOT crypto-asset.

Past milestones:

- Whitepaper Published (October 2016): Dr. Gavin Wood published the Polkadot whitepaper, introducing the project's technical architecture and design.

- Web3 Foundation Established (June 2017): The Web3 Foundation was established in Zug, Switzerland to support the research, development and funding of the Polkadot ecosystem.

- Initial Token Sale Completed (27 October 2017): The Web3 Foundation concluded the initial token sale, selling 50% of the initial 10,000,000 DOT supply and raising more than USD 140,000,000.

- Parity Wallet Freeze (6 November 2017): A vulnerability affecting the Parity multi-signature wallet library resulted in the freezing of approximately 513,774 ether associated with the token sale. Development of the project continued despite the incident.

- Proof-of-Concept Releases (May 2018 to May 2019): Four Proof-of-Concept releases were published to progressively validate the network architecture before mainnet deployment.

- Kusama Canary Network Launched (September 2019): Kusama was launched as an experimental network for testing protocol upgrades and new functionality prior to deployment on Polkadot.

- Polkadot Network Launch (26 May 2020): The initial Polkadot network was launched as a Proof of Authority network with governance initially controlled through a Sudo account.

- Transition to Nominated Proof of Stake (18 June 2020): The network transitioned to a Nominated Proof of Stake consensus model secured by a decentralised validator set.

- Sudo Removal and Decentralised Governance (20 July 2020): The Sudo module was removed, transferring governance to the on-chain governance system and DOT holders.

- DOT Redenomination Approved (27 July 2020): DOT holders approved a redenomination of the crypto-asset by a factor of 100 through on-chain governance.

- DOT Transfers Enabled (18 August 2020): Transfer functionality for DOT was enabled on the network.

- DOT Redenomination Implemented (21 August 2020): The approved 100:1 redenomination became effective while preserving the total number of Planck units.

- First Parachain Slot Auctions (November 2021): The first parachain slot auctions commenced, enabling projects to lease relay-chain resources by bonding DOT.

- OpenGov Introduced (2023): The OpenGov governance system replaced the previous Council and Technical Committee governance model, providing all DOT holders with direct participation in governance.

- Polkadot Community Foundation established (April 2024): Polkadot governance approved OpenGov Referendum 730, funding the incorporation of the Polkadot Community Foundation, a Cayman Islands foundation company directed by DOT holders via OpenGov, with a requested budget of approximately USD 600,000 (approximately 88,000 DOT). The Foundation is an off-chain execution vehicle for governance-directed activities and is not the issuer of DOT.

- Agile Coretime Introduced (19 September 2024): Runtime upgrade 1.2.0 replaced parachain lease auctions with the Agile Coretime model, introducing bulk and on-demand allocation of execution resources.

- Fixed Issuance Model Adopted (7 November 2024): Runtime upgrade v1.3.4 established a fixed annual issuance of approximately 120,000,000 DOT, allocating approximately 85% to stakers and 15% to the Treasury.

- Supply Cap and Issuance Reduction (14 March 2026): OpenGov referendums introduced a maximum supply of 2,100,000,000 DOT and reduced annual issuance to approximately 56,880,000 DOT, placing issuance on a disinflationary path towards the supply cap.

Future milestones:

- JAM (Join-Accumulate Machine) (Planned): The Polkadot community has proposed the Join-Accumulate Machine (JAM) as a successor to the current Relay Chain architecture. JAM is intended to introduce a redesigned protocol architecture supporting permissionless deployment of services without prior governance approval while maintaining the security properties of the existing Relay Chain. The proposal is intended to be implemented as a single protocol upgrade. Its implementation remains subject to governance approval and technical development.

- Continued Network Scaling and Polkadot Hub Development (From 2026 onwards): Publicly communicated plans include continued improvements to network scalability, including further development of Agile Coretime and elastic scaling, together with ongoing expansion of Polkadot Hub functionality, including smart contracts, staking and governance features.

Note: All future milestones are subject to significant uncertainty, including but not limited to technical feasibility, regulatory developments, market adoption and community governance decisions. The project may modify, delay or discontinue any of these initiatives at any time. Past implementation or performance outcomes do not constitute an indication of future results, and any such changes may materially affect the characteristics, availability or perceived value of the DOT crypto-asset for its holders.

D.9 Resource allocation

According to publicly referenced information, the principal source of funding for the development of the Polkadot network was the initial DOT token sale conducted by the Web3 Foundation. The initial token sale concluded on 2017-10-27 and reportedly sold 50% of the initial supply of 10,000,000 DOT, raising more than USD 140,000,000. Shortly thereafter, on 2017-11-06, a vulnerability affecting a Parity multi-signature wallet reportedly resulted in a substantial portion of the sale proceeds becoming inaccessible. Public sources indicate that approximately 513,774.16 ether, valued at approximately USD 98,000,000 at the time, were frozen. Polkadot underwent a redenomination in August 2020, under which each original DOT was split into 100 DOT. As a result, the original genesis supply of 10,000,000 DOT became 1,000,000,000 DOT after redenomination. The redenomination changed the unit count only and did not, in itself, change the aggregate value of holders' DOT balances.

Public sources further indicate that the Web3 Foundation conducted two additional private token sales. The first, completed in June 2019, reportedly involved 500,000 original DOT, representing 5% of the original genesis supply, and was reported to value the project at approximately USD 1,200,000,000. Prior reporting indicated that the Web3 Foundation sought to raise approximately USD 60,000,000 through this offering; however, the final proceeds were not publicly disclosed and it is therefore unclear whether the full target amount was achieved. A further private token sale conducted between 2020-07-24 and 2020-07-27 reportedly raised approximately 3,982 BTC, valued at approximately USD 43,000,000 at the time of the transaction. Subsequent third-party publications report proceeds ranging from approximately USD 43,000,000 to USD 47,000,000, reflecting differences in valuation methodology and exchange rates. As publicly available sources are not fully consistent regarding the proceeds of this financing round, the reported amount cannot be independently verified.

Publicly available funding aggregators and third-party publications also report that entities associated with the development of the Polkadot ecosystem have received additional equity financing and grants. However, the reported amounts, recipients, financing structures and cumulative totals differ across sources and cannot be reconciled with sufficient certainty. Accordingly, no aggregate amount for such financing has been included.

However, all such information is derived exclusively from public announcements, portfolio disclosures, press releases, transparency reports and third-party publications. The issuer, foundation, or entities associated with the DOT crypto-asset have not independently confirmed the occurrence, precise amounts, valuation, legal structure, or contractual terms of these reported financing rounds. As a result, the referenced investment amounts, investor participation, and any implied cumulative funding figures cannot be independently verified and should be considered indicative only.

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 2,100,000,000 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 factors such as protocol issuance, staking, treasury or governance-related allocations, holdings by early participants and other market participants, and potential reductions or removals from circulation. 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 transaction 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 interest. Due to the broad audience this white paper addresses, 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

According to publicly available information (sources: https://wiki.polkadot.com/learn/learn-dot/, https://docs.polkadot.com/, accessed 2026-07-01), DOT is the native crypto-asset of the Polkadot Relay Chain. It has been transferable since 2020-08-18. Its primary functions are staking to help secure the network, participation in on-chain governance, and the purchase or bonding of coretime for parachains. DOT is also used to pay transaction fees and to meet fee requirements for cross-chain messaging.

1. Staking: DOT can be locked ("staked") to support the network's Nominated Proof of Stake system, either by operating a validator or by nominating validators. Participants who stake DOT and contribute to network operation are eligible to receive rewards denominated in DOT. Staking places the staked DOT at risk of reduction ("slashing") in the event of validator misconduct.

2. Governance: DOT is used as voting power in the on-chain governance system (OpenGov). Any holder may submit proposals and vote on referenda, including proposals to change the protocol, upgrade the runtime and allocate funds from the on-chain Treasury. Voting is weighted by the amount of DOT committed and, where applicable, by the length of the voluntary lock-up.

3. Coretime: DOT is used to obtain access to Relay Chain resources for parachains, whether in bulk or on demand, so that parachains can produce blocks and benefit from the shared security of the network.

4. Fees: DOT is used to pay transaction fees on the Relay Chain and to meet fee requirements associated with cross-chain messaging between connected chains.

The DOT crypto-asset does not confer ownership, profit participation, governance rights over the issuer or any related entity in a corporate-law sense, or any form of legally enforceable economic entitlement. All functionalities are technical in nature and relate exclusively to interactions within the Polkadot protocol environment. The actual usability of DOT depends on factors such as system stability, governance decisions, development progress and the operational conditions of the Polkadot blockchain, which are outside the control of token holders.

F.3 Planned application of functionalities

Future milestones:

- JAM (Join-Accumulate Machine) (Planned): The Polkadot community has proposed the Join-Accumulate Machine (JAM) as a successor to the current Relay Chain architecture. JAM is intended

to introduce a redesigned protocol architecture supporting permissionless deployment of services without prior governance approval while maintaining the security properties of the existing Relay Chain. The proposal is intended to be implemented as a single protocol upgrade. Its implementation remains subject to governance approval and technical development.

- Continued Network Scaling and Polkadot Hub Development (From 2026 onwards): Publicly communicated plans include continued improvements to network scalability, including further development of Agile Coretime and elastic scaling, together with ongoing expansion of Polkadot Hub functionality, including smart contracts, staking and governance features.

Note: All future milestones are subject to significant uncertainty, including but not limited to technical feasibility, regulatory developments, market adoption and community governance decisions. The project may modify, delay or discontinue any of these initiatives at any time. Past implementation or performance outcomes do not constitute an indication of future results, and any such changes may materially affect the characteristics, availability or perceived value of the DOT crypto-asset for its holders.

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 natively implemented on the Polkadot network and is also available on the Astar network via XCM. DOT was previously available on the Composable Finance network. The crypto-asset is fungible up to 10 decimal places. 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: "Polkadot DOT" according to the Digital Token Identifier Foundation (www.dtif.org, DTI see F.13, FFG DTI see F.14 as of 2026-07-01).

F.8 Website of the issuer

Based on the available information, the crypto-asset does not appear to be issued through a traditional corporate, foundation, or comparable legal entity structure. Accordingly, no website of a registered legal-entity issuer has been identified.

General information about the underlying project is made publicly available at: https://polkadot.com/. This website should not be understood as the website of a registered legal-entity issuer within the meaning of Regulation (EU) 2023/1114 (MiCA).

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

2026-08-10

F.10 Publication date

2026-08-10

F.11 Any other services provided by the issuer

Based on the available information, the crypto-asset does not appear to be issued through a traditional corporate, foundation, or comparable legal entity structure. Therefore, no other services provided by a registered legal-entity issuer have been identified.

It cannot be excluded that natural persons, organised development teams, or other structures connected to the crypto-asset project provide or may provide additional services outside the scope of Regulation (EU) 2023/1114.

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

S8CVG4KKZ, P5B46MFPP, KNPTB87Q5, N3TLFXRZL

F.14 Functionally fungible group digital token identifier

SGD9NLTRG

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 (the GDPR).

F.17 LEI eligibility

Based on the available information, the crypto-asset does not appear to be issued through a traditional corporate, foundation, or comparable legal entity structure. Accordingly, no registered legal-entity issuer has been identified for which LEI eligibility could be assessed.

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

Not applicable.

G.5 Issuer retained crypto-assets

Based on the available information, the DOT crypto-asset does not appear to be issued through a traditional corporate, foundation, or comparable legal entity structure, and no registered legal-entity issuer has been identified that retains crypto-assets. The following is therefore presented as information on the early distribution of the crypto-asset rather than as holdings retained by an issuer. According to publicly available information, at genesis 30% of the supply (3,000,000 DOT in

the original denomination, equivalent to 300,000,000 DOT after the 2020-08-21 redenomination) was allocated to the Web3 Foundation for the development of Polkadot, and a further 11.6% (116,000,000 DOT after redenomination) was retained for future fundraising. The extent to which these early allocations are still held by the Web3 Foundation or associated structures cannot be independently verified.

No publicly disclosed vesting schedule or lock-up arrangement has been identified for these early allocations, and no publicly disclosed blockchain addresses have been identified that can be independently and conclusively attributed to the Web3 Foundation or associated structures for the purposes of verifying current balances.

The token distribution can be traced on-chain on Polkadot through the account and holder views of the block explorer at https://polkadot.subscan.io/. 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.

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 of the crypto-asset in response to changes in demand as of 2026-07-01.

However, it is possible to decrease the circulating supply by transferring crypto-assets to so-called "burn addresses". These are addresses from which the tokens are no longer intended to be transferred or accessed, effectively removing them from circulation.

G.13 Supply adjustment mechanisms

Not applicable.

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 in the context of an application for admission to trading on a trading platform established in the European Union. 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 (DLT)

The crypto-asset in scope is native to the Polkadot network and is also available on the Astar network. As listed in section F.13, DOT was previously available on the Composable Finance network. The crypto-asset follows the standards described below.

H.2 Protocols and technical standards

The crypto-asset in scope is native to the Polkadot network and is also available on Astar network. DOT was previously available on the Composable Finance network. The crypto-asset follows the standards described below.

The following applies to Polkadot:

1. Polkadot uses a defined set of protocols and technical standards to support block production, finality, validator selection, cross-chain communication and runtime execution. At consensus level, the network combines BABE, which is used for block production, with GRANDPA, which is used for finality. Validator selection and network security are based on Nominated Proof of Stake. Additional bridge-finality infrastructure, including BEEFY, is used to support verification in cross-chain and bridge-related contexts.

2. Cross-chain communication within the Polkadot ecosystem is supported through Cross-Consensus Messaging, commonly referred to as XCM. XCM provides a standard format for communication between consensus systems, including communication involving parachains and the Relay Chain. Connections to external blockchain networks may be supported through bridge infrastructure.

3. Polkadot is built using the Polkadot SDK and its runtime modules, commonly referred to as FRAME pallets. Network actions are submitted as extrinsics, which may include signed transactions, unsigned transactions and inherent extrinsics produced by block authors. Polkadot accounts and transactions rely on cryptographic key pairs and digital signatures, including sr25519 and ed25519 schemes. Randomness used by the protocol is supported through verifiable random function mechanisms.

4. For parachain resource allocation, Polkadot uses Agile Coretime. Under this model, parachains may obtain access to blockspace through bulk coretime or on-demand coretime, rather than relying solely on the earlier parachain slot auction and lease model.

The following applies to Astar:

1. Astar is built using the Substrate framework and operates as a parachain connected to the Polkadot Relay Chain. The network inherits the technical standards and shared security model of the Polkadot ecosystem while providing a dedicated execution environment for smart contracts.

2. Astar supports both Ethereum Virtual Machine (EVM) and WebAssembly (Wasm) smart contracts, allowing developers to deploy Ethereum-compatible applications alongside Substrate-native smart contracts within the same network. The network also supports interoperability with other Polkadot parachains through Cross-Consensus Messaging (XCM).

3. The network uses Substrate runtime modules (FRAME pallets) to implement its protocol logic. Transactions are submitted using the Substrate extrinsic model, while users may interact with the network through either Substrate (SS58) or Ethereum-compatible (H160) account formats.

The following applies to Composable Finance:

The Composable Finance implementation referred to in this white paper represents a historical network listed in Section F.13 and is no longer used for the crypto-asset in scope.

H.3 Technology used

The crypto-asset in scope is native to the Polkadot network and is also available on Astar network. DOT was previously available on the Composable Finance network. The crypto-asset follows the standards described below.

The following applies to Polkadot:

1. Polkadot uses a multichain architecture consisting of the Relay Chain, parachains and bridge infrastructure. The Relay Chain provides the central security, consensus and finality layer for the network. Parachains are independent application-specific blockchains that connect to the Relay Chain and may implement their own runtime logic, governance processes and token models. They rely on the Relay Chain for shared security and for access to Polkadot blockspace through coretime. Bridge infrastructure may be used to support interoperability with external blockchain networks.

2. Polkadot SDK-based chains use a block and extrinsic model. A block consists of a header and an ordered array of extrinsics. The block header contains technical information such as the parent hash, block number, state root, extrinsics root and digest. Extrinsics represent submitted network actions and may include signed transactions, unsigned transactions and inherent extrinsics. The use of block headers and cryptographic roots allows network participants and light-client mechanisms to verify the consistency of block data and state transitions without requiring all underlying data to be processed directly by the verifying party.

3. Polkadot also includes scaling mechanisms at parachain level. Asynchronous backing enables parachains to produce blocks more frequently and increases the execution time available per parachain block. Elastic scaling is designed to allow a parachain to use multiple Relay Chain cores in parallel, subject to the relevant technical conditions and available infrastructure. These mechanisms are intended to improve the scalability of parachain execution while preserving the shared security model coordinated through the Relay Chain.

The following applies to Astar:

Astar is built using the Substrate framework and supports both WebAssembly (Wasm) and Ethereum Virtual Machine (EVM) smart contracts within the same network. This enables developers to deploy Substrate-native smart contracts using Wasm as well as Ethereum-compatible smart contracts written for the EVM. The network supports both Substrate (SS58) and Ethereum-style (H160) account formats and provides interoperability with other Polkadot parachains through Cross-Consensus Messaging (XCM), enabling cross-chain communication and asset transfers within the Polkadot ecosystem.

The following applies to Composable Finance:

The Composable Finance implementation referred to in this white paper represents a historical network listed in Section F.13 and is no longer used for the crypto-asset in scope.

H.4 Consensus mechanism

The crypto-asset in scope is native to the Polkadot network and is also available on Astar network. DOT was previously available on the Composable Finance network. The crypto-asset follows the standards described below.

The following applies to Polkadot:

Polkadot uses Nominated Proof of Stake as its validator-selection and network-security model. Validators participate in block production, validate parachain blocks and take part in finality. Nominators support validators by staking DOT behind selected validator candidates. Validators and nominators may receive staking rewards and may be exposed to slashing where validator misconduct or relevant protocol violations occur.

Polkadot uses a hybrid consensus architecture. Block production is performed through BABE, which allocates block-production opportunities to validators through a randomness-based slot mechanism. Finality is provided through GRANDPA, a finality gadget that finalises chains of blocks and provides stronger finality guarantees once blocks have been finalised. BABE operates in coordination with GRANDPA, with block production building on the chain finalised by GRANDPA and the protocol applying fork-choice rules for non-finalised forks.

For bridge-related contexts, Polkadot also uses BEEFY, a secondary finality protocol designed to support more efficient verification of Relay Chain finality by external systems. BEEFY is used in connection with bridge infrastructure and is intended to make finality proofs more efficient for systems that do not natively participate in Polkadot consensus.

The main operational roles in the consensus system include validators, nominators and collators. Validators secure the Relay Chain and participate in consensus and finality. Nominators support validator selection through staked DOT. Collators collect parachain transactions, produce parachain block candidates and provide the related proofs to validators for validation. Historical Polkadot materials also refer to Fishermen as monitoring actors that report invalid behaviour, but this role is less central in the current operational design.

Protocol governance is conducted through Polkadot OpenGov. Under OpenGov, DOT holders may submit and vote on referenda across different governance tracks. OpenGov replaced the earlier Governance V1 model, which included a Council and Technical Committee. Protocol changes, including runtime upgrades, may be implemented through the applicable on-chain governance process.

Polkadot launched in 2020 through a staged deployment process. The network initially operated under a proof-of-authority model, moved to proof-of-stake operation on 2020-06-18, and the Sudo module was removed on 2020-07-20, after which governance was transferred to DOT holders.

The following applies to Astar:

Astar is a Substrate-based parachain connected to the Polkadot Relay Chain. Collator nodes collect transactions and produce parachain blocks, which are submitted to the Polkadot Relay Chain for validation before they are included in the network. Astar does not maintain an independent validator set or provide its own economic security and transaction finality. Instead, it inherits

security and finality from Polkadot's shared security model, in which Relay Chain validators operating under the Nominated Proof-of-Stake (NPoS) consensus mechanism validate and finalise parachain blocks.

The following applies to Composable Finance:

The Composable Finance implementation referred to in this white paper represents a historical network listed in Section F.13 and is no longer used for the crypto-asset in scope.

H.5 Incentive mechanisms and applicable fees

The crypto-asset in scope is native to the Polkadot network and is also available on Astar network. DOT was previously available on the Composable Finance network. The crypto-asset follows the standards described below.

The following applies to Polkadot:

Polkadot uses incentive mechanisms based on staking rewards, transaction fees, slashing and governance-directed allocation of protocol resources. Validators and nominators may receive staking rewards in DOT for supporting network security. Validators participate in block production, parachain validation and finality, while nominators support validators by staking DOT behind selected validator candidates. Rewards are calculated by reference to validator participation and are shared between validators and their nominators after the applicable validator commission.

Transaction fees on Polkadot are based on computational weight and transaction size rather than a gas model. The inclusion fee consists of a base fee, a length fee and a weight fee, and users may add an optional tip to increase transaction priority. Fees are generally withdrawn before execution and may be charged even where a transaction fails during execution. Parachain-internal transactions are subject to the fee model of the relevant parachain and do not necessarily result in Relay Chain transaction fees.

Polkadot also applies disincentive mechanisms. Validator misconduct or relevant protocol violations may result in penalties, including slashing of staked DOT and removal from active validation. Protocol revenues, including transaction fees, coretime-related revenues and slashing proceeds, may be allocated through on-chain governance mechanisms, including the Treasury or other governance-directed allocation mechanisms. Accounts on Polkadot are also subject to an existential deposit, meaning that an account must maintain the minimum required balance to remain active on-chain.

The following applies to Astar:

Astar inherits its network security from the Polkadot Relay Chain rather than maintaining an independent consensus incentive mechanism. Users pay transaction fees in ASTR for executing transactions on the parachain. Transaction fees are partially burned and partially distributed to collators, while dApp Staking distributes a share of block inflation to decentralised application developers and the stakers who support them.

The following applies to Composable Finance:

The Composable Finance implementation referred to in this white paper represents a historical network listed in Section F.13 and is no longer used for the crypto-asset in scope.

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.

I.2 Issuer-related risks

Interpretative note for this section: The risk factors set out in this Part I.2 follow the structure of the applicable MiCA white paper template for crypto-assets other than asset-referenced tokens or e-money tokens under Title II of MiCA, including references to issuer-related risks. For the purposes of this Part I.2, references to an "issuer", "issuer-related risks" or similar terms should be read in line with the definition of "issuer" under MiCA, including any natural or legal person, or other undertaking, that issues crypto-assets.

Based on the available information, the crypto-asset does not appear to be issued through a traditional corporate, foundation, or comparable legal entity structure. Accordingly, the risk descriptions in this Part I.2 should be understood as referring, as applicable, to any natural persons, legal persons, undertakings, organised development teams, governance arrangements, or other project-related structures that may materially influence the crypto-asset or the related project, to the extent such persons or structures can be identified from available information.

1. Absence or insolvency of an identifiable issuer

Where an identifiable issuer exists, that issuer may face insolvency risks. These may result from insufficient funding, low market interest, mismanagement, legal or regulatory developments, or external shocks, including pandemics or armed conflicts. In such a case, ongoing development, support, communication, or governance of the crypto-asset project may be reduced, suspended, or discontinued, potentially affecting the viability, availability, market acceptance, or 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. Protocol and software vulnerability risk

The protocol rules, client software implementations, execution and consensus layer components, or related technical elements that define the crypto-asset's parameters or govern its transfers may contain coding errors or security vulnerabilities. Exploitation of such weaknesses can result in unintended consequences, including loss of funds or disruption of network functionality. Even after extensive peer review, the use of multiple independent client implementations, and ongoing community auditing, undetected vulnerabilities may persist, particularly given the protocol's technical complexity and the regular cadence of consensus-affecting upgrades.

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

39120077M9TG0O1FE242

S.3 Name of the crypto-asset

Polkadot DOT

S.4 Consensus Mechanism

The crypto-asset in scope is native to the Polkadot network and is also available on Astar network. DOT was previously available on the Composable Finance network. The crypto-asset follows the standards described below.

The following applies to Polkadot:

Polkadot uses Nominated Proof of Stake as its validator-selection and network-security model. Validators participate in block production, validate parachain blocks and take part in finality. Nominators support validators by staking DOT behind selected validator candidates. Validators and nominators may receive staking rewards and may be exposed to slashing where validator misconduct or relevant protocol violations occur.

Polkadot uses a hybrid consensus architecture. Block production is performed through BABE, which allocates block-production opportunities to validators through a randomness-based slot mechanism. Finality is provided through GRANDPA, a finality gadget that finalises chains of blocks and provides stronger finality guarantees once blocks have been finalised. BABE operates in coordination with GRANDPA, with block production building on the chain finalised by GRANDPA and the protocol applying fork-choice rules for non-finalised forks.

For bridge-related contexts, Polkadot also uses BEEFY, a secondary finality protocol designed to support more efficient verification of Relay Chain finality by external systems. BEEFY is used in connection with bridge infrastructure and is intended to make finality proofs more efficient for systems that do not natively participate in Polkadot consensus.

The main operational roles in the consensus system include validators, nominators and collators. Validators secure the Relay Chain and participate in consensus and finality. Nominators support validator selection through staked DOT. Collators collect parachain transactions, produce parachain block candidates and provide the related proofs to validators for validation. Historical Polkadot materials also refer to Fishermen as monitoring actors that report invalid behaviour, but this role is less central in the current operational design.

Protocol governance is conducted through Polkadot OpenGov. Under OpenGov, DOT holders may submit and vote on referenda across different governance tracks. OpenGov replaced the earlier Governance V1 model, which included a Council and Technical Committee. Protocol changes, including runtime upgrades, may be implemented through the applicable on-chain governance process.

Polkadot launched in 2020 through a staged deployment process. The network initially operated under a proof-of-authority model, moved to proof-of-stake operation on 2020-06-18, and the Sudo module was removed on 2020-07-20, after which governance was transferred to DOT holders.

The following applies to Astar:

Astar is a Substrate-based parachain connected to the Polkadot Relay Chain. Collator nodes collect transactions and produce parachain blocks, which are submitted to the Polkadot Relay Chain for validation before they are included in the network. Astar does not maintain an independent validator set or provide its own economic security and transaction finality. Instead, it inherits security and finality from Polkadot's shared security model, in which Relay Chain validators operating under the Nominated Proof-of-Stake (NPoS) consensus mechanism validate and finalise parachain blocks.

The following applies to Composable Finance:

The Composable Finance implementation referred to in this white paper represents a historical network listed in Section F.13 and is no longer used for the crypto-asset in scope.

S.5 Incentive Mechanisms and Applicable Fees

The crypto-asset in scope is native to the Polkadot network and is also available on Astar network. DOT was previously available on the Composable Finance network. The crypto-asset follows the standards described below.

The following applies to Polkadot:

Polkadot uses incentive mechanisms based on staking rewards, transaction fees, slashing and governance-directed allocation of protocol resources. Validators and nominators may receive staking rewards in DOT for supporting network security. Validators participate in block production, parachain validation and finality, while nominators support validators by staking DOT behind selected validator candidates. Rewards are calculated by reference to validator participation and are shared between validators and their nominators after the applicable validator commission.

Transaction fees on Polkadot are based on computational weight and transaction size rather than a gas model. The inclusion fee consists of a base fee, a length fee and a weight fee, and users may add an optional tip to increase transaction priority. Fees are generally withdrawn before execution and may be charged even where a transaction fails during execution. Parachain-internal transactions are subject to the fee model of the relevant parachain and do not necessarily result in Relay Chain transaction fees.

Polkadot also applies disincentive mechanisms. Validator misconduct or relevant protocol violations may result in penalties, including slashing of staked DOT and removal from active validation. Protocol revenues, including transaction fees, coretime-related revenues and slashing proceeds, may be allocated through on-chain governance mechanisms, including the Treasury or other governance-directed allocation mechanisms. Accounts on Polkadot are also subject to an existential deposit, meaning that an account must maintain the minimum required balance to remain active on-chain.

The following applies to Astar:

Astar inherits its network security from the Polkadot Relay Chain rather than maintaining an independent consensus incentive mechanism. Users pay transaction fees in ASTR for executing transactions on the parachain. Transaction fees are partially burned and partially distributed to collators, while dApp Staking distributes a share of block inflation to decentralised application developers and the stakers who support them.

The following applies to Composable Finance:

The Composable Finance implementation referred to in this white paper represents a historical network listed in Section F.13 and is no longer used for the crypto-asset in scope.

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

2025-07-04

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

2026-07-04

S.8 Energy consumption

642546.00000 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 Polkadot and Astar network 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

39.0062350679 %

S.11 Energy intensity

0.00004 kWh

S.12 Scope 1 DLT GHG emissions – Controlled

0.00000 tCO2e/a

S.13 Scope 2 DLT GHG emissions – Purchased

190.07953 tCO2e/a

S.14 GHG intensity

0.00001 kgCO2e

S.15 Key energy sources and methodologies

To determine the proportion of renewable energy usage, the locations of the nodes are determined using public information sites, open-source and in-house-developed crawlers. Where no information is available on the geographic distribution of nodes, comparable reference networks are used, taking into account similarities in incentivisation structure and consensus mechanism. This geographic information is then combined with publicly available data from Our World in Data. The resulting intensity is calculated as the marginal energy consumption with respect to one additional 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]. Underlying sources: Ember, "Yearly Electricity Data Europe"; Ember, "Yearly Electricity Data"; Energy Institute, "Statistical Review of World Energy". Retrieved from: https://ourworldindata.org/grapher/share-electricity-renewables

S.16 Key GHG sources and methodologies

To determine GHG emissions, the locations of the nodes are determined using public information sites, open-source crawlers, and crawlers developed in-house. Where no information is available on the geographic distribution of nodes, comparable reference networks are used, taking into account similarities in incentivisation structure and consensus mechanism. This geographic information is then combined with publicly available data from Our World in Data. The resulting intensity is calculated as the marginal emission intensity with respect to one additional 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]. Underlying sources: Ember, "Yearly Electricity Data Europe"; Ember, "Yearly Electricity Data"; Energy Institute, "Statistical Review of World Energy". Retrieved from: https://ourworldindata.org/grapher/carbon-intensity-electricity. Licensed under CC BY 4.0.

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