Grass (GRASS)
White paper

In accordance with Title II of Regulation (EU) 2023/1114 (MiCA)

N	Field	Content
0	Table of content	

01	Date of notification	2025-06-19
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 operator of the trading platform 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 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 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	false
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. The crypto-asset referred to in this white paper is not covered by the deposit guarantee schemes under Directive 2014/49/EU of the European Parliament and of the Council.

<table>
<tr><td colspan="3">Summary</td></tr>
<tr><td>07</td><td>Warning in accordance with Article 6(7), second subparagraph of Regulation (EU) 2023/1114</td><td>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 admission to trading of this crypto-asset does not constitute an offer or solicitation to purchase financial instruments and any such offer or solicitation can be made only by means of a prospectus or other offer documents pursuant to the applicable national law. This crypto-asset white paper does not constitute a prospectus as referred to in Regulation (EU) 2017/1129 of the European Parliament and of the Council (36) or any other offer document pursuant to Union or national law.</td></tr>
<tr><td>08</td><td>Characteristics of the crypto-asset</td><td>GRASS is a fungible SPL token designed for use within the Grass Network. It provides holders with access to network services and future on-chain governance rights. Holders can stake or delegate GRASS to Routers and Validators to earn protocol-reward distributions, pay GRASS to obtain structured web-data products, and once enabled, lock GRASS to vote on emission schedules, validator incentives, and network upgrades.

GRASS has a maximum supply of 1 000 000 000 distributed as follows:

<table>
<tr><th>Category</th><th>Allocation</th></tr>
<tr><td>Investors</td><td>25,2%</td></tr>
<tr><td>Foundation & Ecosystem Growth</td><td>22,8%</td></tr>
<tr><td>Contributors</td><td>22%</td></tr>
<tr><td>Future Incentives</td><td>17%</td></tr>
<tr><td>Airdrop</td><td>10%</td></tr>
<tr><td>Router Incentives</td><td>3%</td></tr>
</table>

GRASS tokens are freely transferable, in whole or in part, to third parties, and all associated usage rights and obligations follow the token upon transfer.</td></tr>
</table>

09	Information about the quality and quantity of goods or services to which the utility tokens give access and restrictions on the transferability	False
10	Key information about the offer to the public or admission to trading	Kraken seeks admission to trading of the GRASS token so as to be compliant with MiCA and in keeping with its mission to make available for trading to its clients a wide range of assets.
Part I – Information on risks		
I.1	Offer-Related Risks	**General Risk Factors Associated with Crypto-Asset Offerings** The admission to trading of crypto-assets, including GRASS, is subject to general risks inherent to the broader cryptocurrency market. **Market Volatility** The value of GRASS may experience substantial fluctuations driven by investor sentiment, macroeconomic developments, and market conditions. **Regulatory Risks** Changes in legislation, applicable laws, compliance requirements or the implementation of new regulatory frameworks could affect the availability, trading, or use of such assets. **Security Risks** The risk of exploitation, hacking or security vulnerabilities of the underlying protocol and/or contracts of the token leading to a loss. **Reputational Risks** The potential for damage to an organization's credibility or public trust, which can negatively impact stakeholder confidence and overall business viability**.**
I.2	Issuer-Related Risks	**Regulatory and Legal Risk** Future legislation or enforcement action in the EU, British Virgin Islands, Cayman Islands, or other jurisdictions could require licences, restrict token distributions, or impose penalties, limiting the Foundation's ability to operate.

		Operational and Financial Stability The Foundation is less than two years old and has no recurring revenue; it relies on token reserves and private funding. A sustained market downturn or unexpected cost over-runs could exhaust resources and delay or curtail planned development. **Dependence on Key Personnel** A small core team drives strategy and engineering; the departure of critical staff or an inability to recruit qualified replacements could slow progress and undermine network reliability. **Governance-Concentration and Internal-Control Risks** Approximately 22,8 % of the total supply is retained by the Foundation and core contributors. This gives the issuer significant voting influence when on-chain governance launches. Treasury assets are secured with multisignature wallets; compromise or misuse of signer keys could result in misallocation or loss of funds. **Jurisdictional Risk** Offshore incorporation may limit access to traditional banking services and complicate dispute resolution, increasing operational overhead and legal complexity for token holders.
I.3	Crypto-Assets-related Risks	**Market Volatility** The crypto-asset market is subject to significant price volatility, which may affect the value of GRASS. Prices can fluctuate rapidly and unpredictably due to various factors, including market sentiment, economic indicators, technological developments, regulatory news, and macroeconomic trends. This high level of volatility may lead to sudden gains or losses and can impact the liquidity and tradability of the crypto-asset. **Liquidity** Liquidity refers to the ability to buy or sell a crypto-asset without causing significant price impact. GRASS may experience periods of low liquidity, meaning that it could be difficult to enter or exit positions at desired prices or volumes. Reduced liquidity may result from limited market participation, exchange restrictions, or broader market conditions. This can lead to increased price volatility, slippage, and difficulty in executing transactions. **Cybersecurity & Technology Risks** Risks arising from vulnerabilities in the blockchain technology used by the project or platforms. Example risks include smart contract exploits, compromise of platforms, forking scenarios, compromise of cryptographic algorithms.

		Adoption Risks The risk associated with the project not achieving its goals leading to lower than expected adoption and use within the ecosystem, the impact leading to a reduced utility and value proposition. **Custody & Ownership Risk** The risk related to the inadequate safekeeping and control of crypto-assets e.g. loss of private keys, custodian insolvency leading to a loss.
I.4	Project Implementation-Related Risks	**Development Delays or Shortfalls** Key milestones such as the transition from a single validator to a multi-validator set, shipment of dedicated Grass Routers, and launch of on-chain governance may be postponed or only partially delivered. Delays would reduce network utility and could depress demand for GRASS. **Scaling and Infrastructure** As bandwidth-sharing participation grows, the project must scale data-processing back-end services and maintain low-latency Solana interactions. Insufficient infrastructure investment could lead to data bottlenecks or downtime, undermining user confidence. **Reliance on Third-Party Technology** Grass depends on the Solana blockchain for settlement and on external zero-knowledge-proof tooling for data verification. Performance issues or vulnerabilities in these systems could disrupt core functionality. **Hardware Supply-Chain Risk** The Router hardware program relies on global manufacturing and distribution. Component shortages, logistics interruptions or quality-control failures could restrict device availability and slow node growth. **Regulatory Adaptation** Should data-collection rules or export controls change, the project may need to redesign collection methods, creating unplanned engineering work and potential service gaps.
I.5	Technology-Related Risks	**Smart contract risks** GRASS uses smart contracts to facilitate automated transactions and processes. While these contracts enhance efficiency and decentralization, they also introduce specific technical risks. Vulnerabilities such as coding errors, design flaws, or security loopholes within the smart contract code may be exploited by malicious actors. Such exploits could result in the loss of assets, unauthorized access to sensitive information, or unintended and irreversible execution of transactions.

		Blockchain Network Risks GRASS operates on a public blockchain infrastructure, which is maintained by a decentralized network of participants. The functionality and reliability of the crypto-asset are dependent on the performance and security of the underlying blockchain. Risks may include network congestion, high transaction fees, delayed processing times, or, in extreme cases, outages and disruptions. Additionally, vulnerabilities or failures in the consensus mechanism, attacks on the network (e.g., 51% attacks), or protocol-level bugs could impact the operation and availability of GRASS. **Risk of Cryptographic Vulnerabilities** Technological advancements, such as quantum computing, could pose potential risks to cryptocurrencies. **Privacy** Transactions involving GRASS are recorded on a public blockchain, where transaction data is transparent and permanently accessible. While public addresses do not directly reveal personal identities, transaction histories can be analyzed and, in some cases, linked to individuals through data aggregation or external information sources. This transparency may pose privacy concerns for users seeking confidentiality in their financial activity. Participants should be aware that transaction data on public blockchains is not inherently private and could be subject to scrutiny by third parties, including regulators, analytics firms, or malicious actors.
I.6	Mitigation measures	**End-to-end encryption.** Grass documentation states that all traffic routed through a Grass Node is encrypted in transit. By tunnelling requests and responses inside an encrypted channel, the network prevents third party interception or tampering of the data forwarded between users and institutional clients. **Node-reputation scoring.** Validators assign each node a quality score derived from metrics such as request-success rate, latency and policy compliance proofs. Nodes with consistently poor scores are allocated less traffic and rewards, and may be removed from the incentive pool until they meet minimum performance standards, discouraging malicious or unreliable relays. **Continuous external monitoring (AppEsteem certification).** Grass OpCo Ltd. states that its desktop client undergoes continuous security monitoring and certification by AppEsteem. The service performs static and behavioural scans of each software build and alerts the Grass security team to potential issues, providing an independent layer of consumer-protection

		oversight. **Established standard** GRASS is issued under the widely used SPL fungible token standard on Solana. Adhering to this audited specification limits the need for custom contract code and reduces the likelihood of unknown implementation bugs. **Treasury visibility** Foundation reserves are held in identifiable on-chain wallets; token movements can be tracked by the public, and the project indicates that future spending decisions will be subject to DAO governance.
Part A - Information about the offeror or the person seeking admission to trading		
A.1	Name	N/A
A.2	Legal form	N/A
A.3	Registered address	N/A
A.4	Head office	N/A
A.5	Registration Date	N/A
A.6	Legal entity identifier	N/A
A.7	Another identifier required pursuant to applicable national law	N/A
A.8	Contact telephone number	N/A

A.9	E-mail address	N/A
A.10	Response Time (Days)	N/A
A.11	Parent Company	N/A
A.12	Members of the Management body	N/A
A.13	Business Activity	N/A
A.14	Parent Company Business Activity	N/A
A.15	Newly Established	N/A
A.16	Financial condition for the past three years	N/A
A.17	Financial condition since registration	N/A
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	true

B.2	Name	Grass OpCo Ltd
B.3	Legal form	Company limited
B.4	Registered address	Floor 4, Banco Popular Building, Road Town, Tortola VG1110, British Virgin Islands
B.5	Head office	Unknown
B.6	Registration Date	Unknown
B.7	Legal entity identifier	Unknown
B.8	Another identifier required pursuant to applicable national law	Unknown
B.9	Parent Company	Grass Foundation
B.10	Members of the Management body	Not available
B.11	Business Activity	Not available
B.12	Parent Company Business Activity	Not available

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

<table>
<tr><td>C.1</td><td>Name</td><td>Payward Global Solutions LTD</td></tr>
<tr><td>C.2</td><td>Legal form</td><td>N/A</td></tr>
<tr><td>C.3</td><td>Registered address</td><td>N/A</td></tr>
<tr><td>C.4</td><td>Head office</td><td>N/A</td></tr>
<tr><td>C.5</td><td>Registration Date</td><td>11-07-2023</td></tr>
<tr><td>C.6</td><td>Legal entity identifier of the operator of the trading platform</td><td>9845003D98SCC2851458</td></tr>
<tr><td>C.7</td><td>Another identifier required pursuant to applicable national law</td><td>N/A</td></tr>
<tr><td>C.8</td><td>Parent Company</td><td>N/A</td></tr>
<tr><td>C.9</td><td>Reason for Crypto-Asset White Paper Preparation</td><td>Kraken seeks admission to trading of the GRASS token so as to be compliant with MiCA and in keeping with its mission to make available for trading to its clients a wide range of assets.</td></tr>
<tr><td>C.10</td><td>Members of the Management body</td><td>
<table>
<tr><th>Full Name</th><th>Business Address</th><th>Function</th></tr>
<tr><td>Shannon Kurtas</td><td>70 Sir John Rogerson's Quay, Dublin 2, Ireland</td><td>Board Member</td></tr>
<tr><td>Andrew Mulvenny</td><td>70 Sir John Rogerson's Quay, Dublin 2, Ireland</td><td>Board Member</td></tr>
<tr><td>Shane O'Brien</td><td>70 Sir John Rogerson's Quay, Dublin 2, Ireland</td><td>Board Member</td></tr>
</table>
</td></tr>
</table>

Laura Walsh	70 Sir John Rogerson's Quay, Dublin 2, Ireland	Board Member
Michael Walsh	70 Sir John Rogerson's Quay, Dublin 2, Ireland	Board Member

C.11	Operator Business Activity	PGSL is the operator of a Trading Platform for Crypto Assets, in accordance with Article 3(1)(18) of Regulation (EU) 2023/1114 (MiCA).
C.12	Parent Company Business Activity	Payward, Inc., a Delaware, USA corporation, is the parent company of a worldwide group of subsidiaries (the following paragraphs use the term "Payward" or "Payward Group" to refer to the group) collectively doing business as "Kraken." Payward's primary business is the operation of an online virtual asset platform that enables clients to buy and sell virtual assets on a spot basis, including the transfer of crypto-assets to and from external wallets. Payward, through its various affiliates, offers a number of other services and products, including: * A trading platform for futures contracts on virtual assets ("Kraken Derivatives"); * A platform for buying and selling NFTs; * An over-the-counter ("OTC") desk; * Extensions of margin to support spot trading of virtual assets; * A benchmark administrator; and * Staking services.
C.13	Other persons drawing up the crypto-asset white paper according to Article 6(1), second subparagraph, of Regulation (EU) 2023/1114	N/A

C.14	Reason for drawing the white paper by persons referred to in Article 6(1), second subparagraph, of Regulation (EU) 2023/1114	N/A
Part D- Information about the crypto-asset project		
D.1	Crypto-asset project name	Grass
D.2	Crypto-assets name	N/A
D.3	Abbreviation	N/A
D.4	Crypto-asset project description	Grass is a bandwidth-sharing data network that converts unused residential internet capacity into an auditable resource for vetted institutional clients. Participants run a lightweight Grass Node that forwards pre-screened, encrypted web requests; in return they earn GRASS tokens. By recording traffic summaries and rewards on-chain, Grass provides transparent tracking for the data it supplies to AI labs, researchers and other approved buyers. The project's goal is to create a fair marketplace in which individuals are directly compensated for the value of their excess bandwidth while data purchasers receive verifiable, policy-compliant traffic. GRASS aligns incentives across the ecosystem by rewarding bandwidth suppliers today and by enabling future token holder governance and validator staking for network security.
D.5	Details of all natural or legal persons involved in the implementation of the crypto-asset project	• Grass OpCo Ltd. (issuer & operational subsidiary), Floor 4, Banco Popular Building, Road Town, Tortola VG1110, British Virgin Islands • Grass Foundation (parent, governance & treasury), Cayman Islands **Core Team** Andrej Radonjic: Founder Chris Nguyen: CTO

D.6	Utility Token Classification	false
D.7	Key Features of Goods/Services for Utility Token Projects	N/A
D.8	Plans for the token	Past milestones: Q4 2022: Initial concept and prototype of the bandwidth-sharing node released to early testers. Q3 2023: Seed funding round closed and core development team expanded. Q1 2024: Public beta of the Grass desktop client launched; first institutional data-purchasing partnerships signed. 28 Oct 2024: “Airdrop One” distributed GRASS to over two million eligible users; token contract deployed on Solana. Q2 2025: Mainnet reward-distribution cycle activated; staking of GRASS with router nodes enabled. Future milestones: Refer to the project team website for any further information regarding future milestones.
D.9	Resource Allocation	**Token allocation as resource:** According to the official tokenomics, 228 000 000 GRASS (22,8 %) is set aside for Foundation & Ecosystem Growth .
D.10	Planned Use of Collected Funds or Crypto-Assets	Foundation & Ecosystem Growth reserves will finance protocol R&D, security audits, network infrastructure, and community grants.
Part E - Information about the offer to the public of crypto-assets or their admission to trading		
E.1	Public Offering or Admission to trading	ATTR
E.2	Reasons for Public Offer or Admission to trading	Making secondary trading available to the consumers on the Kraken Trading platform in compliance with the MiCA regulatory framework

E.3	Fundraising Target	N/A
E.4	Minimum Subscription Goals	N/A
E.5	Maximum Subscription Goal	N/A
E.6	Oversubscription Acceptance	N/A
E.7	Oversubscription Allocation	N/A
E.8	Issue Price	N/A
E.9	Official currency or other crypto-assets determining the issue price	N/A
E.10	Subscription fee	N/A
E.11	Offer Price Determination Method	N/A
E.12	Total Number of Offered/Traded crypto-assets	1 000 000 000 maximum supply
E.13	Targeted Holders	ALL

E.14	Holder restrictions	N/A
E.15	Reimbursement Notice	N/A
E.16	Refund Mechanism	N/A
E.17	Refund Timeline	N/A
E.18	Offer Phases	N/A
E.19	Early Purchase Discount	N/A
E.20	time-limited offer	N/A
E.21	Subscription period beginning	N/A
E.22	Subscription period end	N/A
E.23	Safeguarding Arrangements for Offered Funds/crypto-assets	N/A
E.24	Payment Methods for crypto-asset Purchase	N/A

E.25	Value Transfer Methods for Reimbursement	N/A
E.26	Right of Withdrawal	N/A
E.27	Transfer of Purchased crypto-assets	N/A
E.28	Transfer Time Schedule	N/A
E.29	Purchaser's Technical Requirements	N/A
E.30	crypto-asset service provider (CASP) name	N/A
E.31	CASP identifier	N/A
E.32	Placement form	NTAV
E.33	Trading Platforms name	N/A
E.34	Trading Platforms Market Identifier Code (MIC)	N/A

E.35	Trading Platforms Access	N/A
E.36	Involved costs	N/A
E.37	Offer Expenses	N/A
E.38	Conflicts of Interest	All listings decisions made by Payward Global Solution Ltd are made independently by staff of the entity in line with internal policies. PGSL publishes a conflicts of interest disclosure on its website advising of potential conflicts that may arise.
E.39	Applicable law	Any dispute relating to this white paper shall be governed by and construed and enforced in accordance with the laws of Ireland without regard to conflict of law rules or principles (whether of Ireland or any other jurisdiction) that would cause the application of the laws of any other jurisdiction, irrespective of whether GRASS tokens qualify as right or property under the applicable law.
E.40	Competent court	Any disputes or claims arising out of this white paper will be subject to the exclusive jurisdiction of the Irish courts.
Part F - Information about the crypto-assets		
F.1	Crypto-Asset Type	GRASS is classified as a crypto-asset other than an asset referenced token or e-money token under MiCA, (EU) 2023/1114.
F.2	Crypto-Asset Functionality	GRASS can be staked or delegated to Routers and Validators to earn reward emissions.
F.3	Planned Application of Functionalities	According to the project roadmap, on-chain governance is planned but not yet live. Once activated, GRASS holders will be able to submit and vote on proposals that guide protocol upgrades, treasury grants and other network parameters. No launch date has been announced.
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 white paper	OTHR
F.5	The type of submission	NEWT
F.6	Crypto-Asset Characteristics	GRASS lets holders stake for reward emissions and transfer their tokens freely on Solana; governance is planned but not yet active.
F.7	Commercial name or trading name	Grass Foundation
F.8	Website of the issuer	https://www.grass.io/
F.9	Starting date of offer to the public or admission to trading	2024-10-28
F.10	Publication date	2025-07-17
F.11	Any other services provided by the issuer	N/A
F.12	Identifier of operator of the trading platform	PGSL
F.13	Language or languages of the white paper	English

F.14	Digital Token Identifier	MNCR2MKHP
F.15	Functionally Fungible Group Digital Token Identifier	N/A
F.16	Voluntary data flag	Mandatory
F.17	Personal data flag	true
F.18	LEI eligibility	N/A
F.19	Home Member State	Ireland
F.20	Host Member States	Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Iceland, Liechtenstein, Norway
Part G - Information on the rights and obligations attached to the crypto-assets		
G.1	Purchaser Rights and Obligations	**Rights of GRASS holders:** (a) Stake and earn rewards: holders may delegate or stake GRASS to Routers and Validators and receive protocol reward emissions while their stake remains active; (b) Future governance participation: GRASS is planned to let holders submit proposals and vote on protocol parameters (such as emission schedules, validator incentives and network upgrades) once on-chain governance is launched; (c) Future service access: project documentation states that GRASS will be accepted as payment for web-scraping transactions, dataset purchases and Large-Compute-Request usage when those features go live. **Obligations of GRASS holders:** no mandatory obligations are imposed beyond compliance with the Grass terms of use and applicable law.

		Transferability and trading: GRASS tokens are freely transferable on Solana and may be traded on any venue that lists them; when a token is transferred, all associated usage rights pass to the new holder and lapse for the previous holder.
G.2	Exercise of Rights and obligations	**Procedure to Exercise Rights:** Holders use a Solana wallet to send the relevant on-chain transaction: delegate GRASS to a Router/Validator for staking rewards, lock or delegate GRASS in the governance contract to vote (once live), or transfer GRASS to another address. Each action is confirmed by the network, incurs the standard Solana fee, and is subject to Grass's terms of use; once the transaction settles, all associated rights move to the new holder.
G.3	Conditions for modifications of rights and obligations	The rights and obligations attached to GRASS as described in this white paper reflect information available at the time of issuance. This white paper is issued by Kraken and does not constitute a commitment or guarantee by Grass or any other party regarding future modifications. No promises, warranties, or assurances are made herein regarding future token functionality, and this section is provided solely for informational purposes.
G.4	Future Public Offers	N/A
G.5	Issuer Retained Crypto-Assets	The Grass Foundation (including future ecosystem-growth incentives) retained 228 000 000 GRASS (22.8 % of total supply).
G.6	Utility Token Classification	false
G.7	Key Features of Goods/Services of Utility Tokens	N/A
G.8	Utility Tokens Redemption	N/A
G.9	Non-Trading request	This white paper reflects a request to admit the token to trading.

G.10	Crypto-Assets purchase or sale modalities	N/A
G.11	Crypto-Assets Transfer Restrictions	Kraken may, in accordance with applicable laws and internal policies and terms, impose restrictions on buyers and sellers of these tokens.
G.12	Supply Adjustment Protocols	false
G.13	Supply Adjustment Mechanisms	N/A
G.14	Token Value Protection Schemes	false
G.15	Token Value Protection Schemes Description	N/A
G.16	Compensation Schemes	false
G.17	Compensation Schemes Description	N/A
G.18	Applicable law	Any dispute relating to this white paper shall be governed by and construed and enforced in accordance with the laws of Ireland without regard to conflict of law rules or principles (whether of Ireland or any other jurisdiction) that would cause the application of the laws of any other jurisdiction, irrespective of whether GRASS tokens qualify as right or property under the applicable law.
G.19	Competent court	Any disputes or claims arising out of this white paper will be subject to the exclusive jurisdiction of the Irish courts.

Part H – information on the underlying technology		
H.1	Distributed ledger technology	N/A
H.2	Protocols and technical standards	The GRASS token is based on Solana, which utilises decentralised distributed-ledger technology. This protocol provides the foundation for secure transactions and smart contracts. The SPL standard is a technical protocol for issuing and managing tokens, ensuring that the GRASS token is compatible with most wallets, exchanges and decentralised applications (DApps).
H.3	Technology Used	The GRASS token uses the existing SPL token standard on Solana.
H.4	Consensus Mechanism	**Consensus of Underlying Chain:** Solana uses Proof-of-Stake with Tower BFT and Proof-of-History, where leaders are pre-selected by stake and transactions, including GRASS transfers, receive sub-second confirmation and high throughput.
H.5	Incentive Mechanisms and Applicable Fees	GRASS relies on the existing incentive mechanisms and fee structures of the Solana blockchain.
H.6	Use of Distributed Ledger Technology	false
H.7	DLT Functionality Description	N/A
H.8	Audit	false
H.9	Audit outcome	N/A
Part J - Information on the suitability indicators in relation to adverse impact on the climate and other environment-related adverse impacts		
S.1	Name	Payward Global Solutions Limited

S.2	Relevant legal entity identifier	9845003D98SCC2851458
S.3	Name of the crypto-asset	Grass
S.4	Consensus Mechanism	Solana uses a unique combination of Proof of History (PoH) and Proof of Stake (PoS) to achieve high throughput, low latency, and robust security. Core Concepts: 1. Proof of History (PoH): - Time-Stamped Transactions: PoH is a cryptographic technique that timestamps transactions, creating a historical record that proves that an event has occurred at a specific moment in time. - Verifiable Delay Function: PoH uses a Verifiable Delay Function (VDF) to generate a unique hash that includes the transaction and the time it was processed. This sequence of hashes provides a verifiable order of events, enabling the network to efficiently agree on the sequence of transactions. 2. Proof of Stake (PoS): - Validator Selection: Validators are chosen to produce new blocks based on the number of SOL tokens they have staked. The more tokens staked, the higher the chance of being selected to validate transactions and produce new blocks. - Delegation: Token holders can delegate their SOL tokens to validators, earning rewards proportional to their stake while enhancing the network's security. Consensus Process: 1. Transaction Validation: Transactions are broadcast to the network and collected by validators. Each transaction is validated to ensure it meets the network's criteria, such as having correct signatures and sufficient funds. 2. PoH Sequence Generation: A validator generates a sequence of hashes using PoH, each containing a timestamp and the previous hash. This process creates a historical record of transactions, establishing a cryptographic clock for the network. 3. Block Production: The network uses PoS to select a leader validator based on their stake. The leader is responsible for bundling the validated transactions into a block. The leader validator uses the PoH sequence to order transactions within the block, ensuring that all transactions are processed in the correct order.

		4. Consensus and Finalization: Other validators verify the block produced by the leader validator. They check the correctness of the PoH sequence and validate the transactions within the block. Once the block is verified, it is added to the blockchain. Validators sign off on the block, and it is considered finalized. Security and Economic Incentives: 1. Incentives for Validators: - Block Rewards: Validators earn rewards for producing and validating blocks. These rewards are distributed in SOL tokens and are proportional to the validator's stake and performance. - Transaction Fees: Validators also earn transaction fees from the transactions included in the blocks they produce. These fees provide an additional incentive for validators to process transactions efficiently. 2. Security: - Staking: Validators must stake SOL tokens to participate in the consensus process. This staking acts as collateral, incentivizing validators to act honestly. If a validator behaves maliciously or fails to perform, they risk losing their staked tokens. - Delegated Staking: Token holders can delegate their SOL tokens to validators, enhancing network security and decentralization. Delegators share in the rewards and are incentivized to choose reliable validators. 3. Economic Penalties: Slashing: Validators can be penalized for malicious behavior, such as double-signing or producing invalid blocks. This penalty, known as slashing, results in the loss of a portion of the staked tokens, discouraging dishonest actions.
S.5	Incentive Mechanisms and Applicable Fees	Solana uses a combination of Proof of History (PoH) and Proof of Stake (PoS) to secure its network and validate transactions. Incentive Mechanisms: 1. Validators: - Staking Rewards: Validators are chosen based on the number of SOL tokens they have staked. They earn rewards for producing and validating blocks, which are distributed in SOL. The more tokens staked, the higher the chances of being selected to validate transactions and produce new blocks. - Transaction Fees: Validators earn a portion of the transaction fees paid by users for the transactions they include in the blocks. This provides an additional financial incentive for validators to process transactions efficiently and maintain the network's integrity. 2. Delegators:

		- Delegated Staking: Token holders who do not wish to run a validator node can delegate their SOL tokens to a validator. In return, delegators share in the rewards earned by the validators. This encourages widespread participation in securing the network and ensures decentralization. 3. Economic Security: - Slashing: Validators can be penalized for malicious behavior, such as producing invalid blocks or being frequently offline. This penalty, known as slashing, involves the loss of a portion of their staked tokens. Slashing deters dishonest actions and ensures that validators act in the best interest of the network. - Opportunity Cost: By staking SOL tokens, validators and delegators lock up their tokens, which could otherwise be used or sold. This opportunity cost incentivizes participants to act honestly to earn rewards and avoid penalties. Fees Applicable on the Solana Blockchain Transaction Fees: 1. Low and Predictable Fees: Solana is designed to handle a high throughput of transactions, which helps keep fees low and predictable. The average transaction fee on Solana is significantly lower compared to other blockchains like Ethereum. 2. Fee Structure: Fees are paid in SOL and are used to compensate validators for the resources they expend to process transactions. This includes computational power and network bandwidth. 3. Rent Fees: State Storage: Solana charges rent fees for storing data on the blockchain. These fees are designed to discourage inefficient use of state storage and encourage developers to clean up unused state. Rent fees help maintain the efficiency and performance of the network. 4. Smart Contract Fees: Execution Costs: Similar to transaction fees, fees for deploying and interacting with smart contracts on Solana are based on the computational resources required. This ensures that users are charged proportionally for the resources they consume.
S.6	Beginning of the period to which the disclosure relates	2024-05-28
S.7	End of the period to which the disclosure relates	2025-05-28

S.8	Energy consumption	323.16242 kWh/a
S.9	Energy consumption sources and methodologies	The energy consumption of this asset is aggregated across multiple components: To determine the energy consumption of a token, the energy consumption of the network(s) solana is calculated first. For the energy consumption of the token, a fraction of the energy consumption of the network is attributed to the token, which is determined based on the activity of the crypto-asset within the network. When calculating the energy consumption, the Functionally Fungible Group Digital Token Identifier (FFG DTI) is used - if available - to determine all implementations of the asset in scope. The mappings are updated regularly, based on data of the Digital Token Identifier Foundation. The information regarding the hardware used and the number of participants in the network is based on assumptions that are verified with best effort using empirical data. In general, participants are assumed to be largely economically rational. As a precautionary principle, we make assumptions on the conservative side when in doubt, i.e. making higher estimates for the adverse impacts.