

**White paper drafted under the  
European Markets in Crypto-  
Assets Regulation (EU) 2023/1114  
for FFG KWK003WN7**

# Preamble

## 00. Table of Contents

01. Date of notification.....	10
02. Statement in accordance with Article 6(3) of Regulation (EU) 2023/1114 .....	10
03. Compliance statement in accordance with Article 6(6) of Regulation (EU) 2023/1114 .....	10
04. Statement in accordance with Article 6(5), points (a), (b), (c), of Regulation (EU) 2023/1114.....	10
05. Statement in accordance with Article 6(5), point (d), of Regulation (EU) 2023/1114..	10
06. Statement in accordance with Article 6(5), points (e) and (f), of Regulation (EU) 2023/1114.....	11
Summary .....	11
07. Warning in accordance with Article 6(7), second subparagraph, of Regulation (EU) 2023/1114.....	11
08. Characteristics of the crypto-asset .....	11
09. Information about the quality and quantity of goods or services to which the utility tokens give access and restrictions on the transferability.....	12
10. Key information about the offer to the public or admission to trading.....	12
Part A – Information about the offeror or the person seeking admission to trading .....	12
A.1 Name .....	12
A.2 Legal form .....	12
A.3 Registered address.....	12
A.4 Head office.....	12
A.5 Registration date .....	12
A.6 Legal entity identifier .....	13
A.7 Another identifier required pursuant to applicable national law.....	13

A.8 Contact telephone number .....	13
A.9 E-mail address.....	13
A.10 Response time (Days) .....	13
A.11 Parent company.....	13
A.12 Members of the management body.....	13
A.13 Business activity .....	14
A.14 Parent company business activity .....	14
A.15 Newly established.....	14
A.16 Financial condition for the past three years .....	14
A.17 Financial condition since registration .....	15
Part B – Information about the issuer, if different from the offeror or person seeking admission to trading .....	15
B.1 Issuer different from offeror or person seeking admission to trading .....	15
B.2 Name .....	15
B.3 Legal form .....	15
B4. Registered address.....	15
B.5 Head office.....	15
B.6 Registration date .....	15
B.7 Legal entity identifier .....	16
B.8 Another identifier required pursuant to applicable national law.....	16
B.9 Parent company .....	16
B.10 Members of the management body.....	16
B.11 Business activity .....	16
B.12 Parent company business activity .....	16
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.....	16
C.1 Name.....	16
C.2 Legal form.....	16
C.3 Registered address.....	16
C.4 Head office.....	16
C.5 Registration date .....	17
C.6 Legal entity identifier .....	17
C.7 Another identifier required pursuant to applicable national law.....	17
C.8 Parent company .....	17
C.9 Reason for crypto-Asset white paper Preparation .....	17
C.10 Members of the Management body .....	17
C.11 Operator business activity.....	17
C.12 Parent company business activity .....	17
C.13 Other persons drawing up the crypto-asset white paper according to Article 6(1), second subparagraph, of Regulation (EU) 2023/1114.....	17
C.14 Reason for drawing the white paper by persons referred to in Article 6(1), second subparagraph, of Regulation (EU) 2023/1114 .....	17
Part D – Information about the crypto-asset project.....	18
D.1 Crypto-asset project name.....	18
D.2 Crypto-assets name .....	18
D.3 Abbreviation.....	18
D.4 Crypto-asset project description .....	18
D.5 Details of all natural or legal persons involved in the implementation of the crypto-asset project.....	18
D.6 Utility Token Classification .....	19

D.7 Key Features of Goods/Services for Utility Token Projects .....	19
D.8 Plans for the token .....	19
D.9 Resource allocation.....	20
D.10 Planned use of Collected funds or crypto-Assets .....	21
Part E – Information about the offer to the public of crypto-assets or their admission to trading.....	21
E.1 Public offering or admission to trading .....	21
E.2 Reasons for public offer or admission to trading.....	21
E.3 Fundraising target.....	21
E.4 Minimum subscription goals .....	21
E.5 Maximum subscription goals .....	22
E.6 Oversubscription acceptance.....	22
E.7 Oversubscription allocation.....	22
E.8 Issue price .....	22
E.9 Official currency or any other crypto-assets determining the issue price .....	22
E.10 Subscription fee .....	22
E.11 Offer price determination method.....	22
E.12 Total number of offered/traded crypto-assets.....	22
E.13 Targeted holders.....	22
E.14 Holder restrictions.....	23
E.15 Reimbursement notice .....	23
E.16 Refund mechanism.....	23
E.17 Refund timeline .....	23
E.18 Offer phases.....	23
E.19 Early purchase discount.....	23
E.20 Time-limited offer.....	23

E.21 Subscription period beginning .....	23
E.22 Subscription period end.....	24
E.23 Safeguarding arrangements for offered funds/crypto- Assets.....	24
E.24 Payment methods for crypto-asset purchase .....	24
E.25 Value transfer methods for reimbursement.....	24
E.26 Right of withdrawal .....	24
E.27 Transfer of purchased crypto-assets .....	24
E.28 Transfer time schedule.....	24
E.29 Purchaser's technical requirements .....	24
E.30 Crypto-asset service provider (CASP) name .....	24
E.31 CASP identifier .....	25
E.32 Placement form.....	25
E.33 Trading platforms name.....	25
E.34 Trading platforms Market identifier code (MIC) .....	25
E.35 Trading platforms access .....	25
E.36 Involved costs.....	25
E.37 Offer expenses .....	25
E.38 Conflicts of interest.....	25
E.39 Applicable law .....	26
E.40 Competent court.....	26
Part F – Information about the crypto-assets .....	26
F.1 Crypto-asset type.....	26
F.2 Crypto-asset functionality.....	26
F.3 Planned application of functionalities .....	27
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 .....	28
F.4 Type of crypto-asset white paper .....	28
F.5 The type of submission .....	28
F.6 Crypto-asset characteristics.....	28
F.7 Commercial name or trading name.....	28
F.8 Website of the issuer .....	28
F.9 Starting date of offer to the public or admission to trading.....	28
F.10 Publication date .....	28
F.11 Any other services provided by the issuer.....	28
F.12 Language or languages of the crypto-asset white paper.....	29
F.13 Digital token identifier code used to uniquely identify the crypto-asset or each of the several crypto assets to which the white paper relates, where available.....	29
F.14 Functionally fungible group digital token identifier, where available .....	29
F.15 Voluntary data flag .....	29
F.16 Personal data flag.....	29
F.17 LEI eligibility.....	29
F.18 Home Member State.....	29
F.19 Host Member States.....	29
Part G – Information on the rights and obligations attached to the crypto-assets .....	29
G.1 Purchaser rights and obligations.....	29
G.2 Exercise of rights and obligations.....	30
G.3 Conditions for modifications of rights and obligations .....	30
G.4 Future public offers.....	30
G.5 Issuer retained crypto-assets .....	30
G.6 Utility token classification .....	31

G.7 Key features of goods/services of utility tokens.....	31
G.8 Utility tokens redemption .....	31
G.9 Non-trading request .....	31
G.10 Crypto-assets purchase or sale modalities.....	31
G.11 Crypto-assets transfer restrictions .....	32
G.12 Supply adjustment protocols .....	32
G.13 Supply adjustment mechanisms .....	32
G.14 Token value protection schemes .....	32
G.15 Token value protection schemes description.....	32
G.16 Compensation schemes.....	32
G.17 Compensation schemes description.....	33
G.18 Applicable law.....	33
G.19 Competent court.....	33
Part H – information on the underlying technology .....	33
H.1 Distributed ledger technology (DTL).....	33
H.2 Protocols and technical standards.....	33
H.3 Technology used.....	36
H.4 Consensus mechanism .....	38
H.5 Incentive mechanisms and applicable fees .....	40
H.6 Use of distributed ledger technology .....	43
H.7 DLT functionality description .....	43
H.8 Audit.....	43
H.9 Audit outcome .....	43
Part I – Information on risks .....	43
I.1 Offer-related risks.....	43

I.2 Issuer-related risks .....	45
I.3 Crypto-assets-related risks.....	46
I.4 Project implementation-related risks .....	51
I.5 Technology-related risks.....	51
I.6 Mitigation measures .....	52
Part J – Information on the sustainability indicators in relation to adverse impact on the climate and other environment-related adverse impacts .....	52
J.1 Adverse impacts on climate and other environment-related adverse impacts.....	52
S.1 Name .....	52
S.2 Relevant legal entity identifier .....	52
S.3 Name of the cryptoasset .....	52
S.4 Consensus Mechanism.....	53
S.5 Incentive Mechanisms and Applicable Fees .....	55
S.6 Beginning of the period to which the disclosure relates.....	57
S.7 End of the period to which the disclosure relates .....	58
S.8 Energy consumption.....	58
S.9 Energy consumption sources and methodologies .....	58
S.10 Renewable energy consumption .....	58
S.11 Energy intensity .....	58
S.12 Scope 1 DLT GHG emissions – Controlled .....	58
S.13 Scope 2 DLT GHG emissions – Purchased .....	58
S.14 GHG intensity .....	59
S.15 Key energy sources and methodologies .....	59
S.16 Key GHG sources and methodologies.....	59

## **01. Date of notification**

2025-11-03

## **02. Statement in accordance with Article 6(3) of Regulation (EU)**

### **2023/1114**

This crypto-asset white paper has not been approved by any competent authority in any Member State of the European Union. The person seeking admission to trading of the crypto-asset is solely responsible for the content of this crypto-asset white paper.

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

This crypto-asset white paper complies with Title II of Regulation (EU) 2023/1114 of the European Parliament and of the Council and, to the best of the knowledge of the management body, the information presented in the crypto-asset white paper is fair, clear and not misleading and the crypto-asset white paper makes no omission likely to affect its import.

## **04. Statement in accordance with Article 6(5), points (a), (b), (c), of Regulation (EU) 2023/1114**

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

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

Since the token has multiple functions (hybrid token), these are already conceptually not utility tokens within the meaning of the MiCAR within the definition of Article 3 (1), due to the necessity of the "exclusivity".

## **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**

NodeOps tokens this white paper refers to are crypto-assets other than EMTs and ARTs, which are available on the Ethereum, Arbitrum and BNB Smart chain (at the time of writing this white paper: 2025-07-16 and according to DTI FFG shown in F.14).

The tokens have been available on the Ethereum platform since: 2025-06-27. The first activity on the BNB Smart Chain is known to have taken place on 2025-06-25 and on 2025-06-29 within Arbitrum network.

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

Not applicable.

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

This white paper concerns the admission to trading of the crypto-asset "NodeOps" by NodeLas Labs Limited in accordance to Article 5 of REGULATION (EU) 2023/1114 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 May 2023 on markets in crypto-assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937.

The following platforms are in scope for this: Bitvavo B.V., Payward Global Solutions Limited, Bitpanda GmbH.

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

**A.1 Name**

NodeLas Labs Limited

**A.2 Legal form**

6EH6

**A.3 Registered address**

VG- Intershore Chambers, Road Town, Tortola, British Virgin Islands, VG1110

**A.4 Head office**

VG- Intershore Chambers, Road Town, Tortola, British Virgin Islands, VG1110

**A.5 Registration date**

2024-12-12

**A.6 Legal entity identifier**

Not available.

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

BVI company number: 2165109

**A.8 Contact telephone number**

Not available.

**A.9 E-mail address**

hello@nodelas.xyz

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

020

**A.11 Parent company**

Guzarish Foundation

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

Name	Role	Address
Naman Kabra	Beneficial owner of the parent company and UBO of the issuer	VG- Intershore Chambers, Road Town, Tortola, British Virgin Islands, VG1110
Veronica Camano	President of the parent company	VG- Intershore Chambers, Road Town, Tortola, British Virgin Islands, VG1110
Khine Theint Theint Zin	Treasurer of the parent company and Director of the issuer	VG- Intershore Chambers, Road Town,

		Tortola, British Virgin Islands, VG1110
Zuleyka Aleman Calderon	Secretary of the parent company	VG- Intershore Chambers, Road Town, Tortola, British Virgin Islands, VG1110

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

Nodelas Labs Limited functions as the designated token issuance entity within its corporate structure. Nodelas Labs operates as a subsidiary of a Panama-based foundation entity and is tasked with executing core commercial and operational roles, including token issuance, crypto marketing functions, and fundraising activities. All commercial contracts and legal agreements associated with the token ecosystem are managed and executed through this BVI-based entity.

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

The Guzarish Foundation is a Panama-registered nonprofit foundation that serves as the holding company of the BVI-based entity Nodelas Labs. It is designated as the owner of the protocol and is positioned as the central organizational layer behind the user- and stakeholder-facing components of the ecosystem. The foundation is described as a nonprofit structure, intended to ensure transparency around token issuance and protocol governance. According to internal documentation, the protocol application entity is a 100% wholly owned subsidiary of the Panama Foundation. Through this structure, the foundation is presented as the governance layer overseeing the ecosystem's operational integrity and public representation, ensuring transparency in nonprofit objectives.

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

Yes

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

Not applicable.

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

Since registration, the project has received external funding exceeding USD 5 million. These funds were provided through a combination of different legal and financial vehicles. As of the date of this submission, the majority of the funds - estimated at over USD 4 million - remain available and are held in the form of stablecoins. The project has not undergone significant operational phases yet and is still in an early development stage.

Due to the recent establishment of the involved entities and the limited commercial track record to date, no verified or meaningful financial statements, profitability assessments, or long-term operational indicators are currently available. As a result, it is not possible to provide a reliable evaluation of the issuer's financial performance, sustainability, or business model at this stage. Future financial disclosures will depend on the further evolution of the project and the legal entities supporting it.

### **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**

No

#### **B.2 Name**

Not applicable.

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

Not applicable.

#### **B4. Registered address**

Not applicable.

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

Not applicable.

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

Not applicable.

**B.7 Legal entity identifier**

Not applicable.

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

Not applicable.

**B.9 Parent company**

Not applicable.

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

Not applicable.

**B.11 Business activity**

Not applicable.

**B.12 Parent company business activity**

Not applicable.

**Part C – Information about the operator of the trading platform in cases where it draws up the crypto-asset white paper and information about other persons drawing the crypto-asset white paper pursuant to Article 6(1), second subparagraph, of Regulation (EU) 2023/1114**

**C.1 Name**

Not applicable.

**C.2 Legal form**

Not applicable.

**C.3 Registered address**

Not applicable.

**C.4 Head office**

Not applicable.

**C.5 Registration date**

Not applicable.

**C.6 Legal entity identifier**

Not applicable.

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

Not applicable.

**C.8 Parent company**

Not applicable.

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

Not applicable.

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

Not applicable.

**C.11 Operator business activity**

Not applicable.

**C.12 Parent company business activity**

Not applicable.

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

Not applicable.

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

Not applicable.

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

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

Long Name: "NodeOps", Short Name: "NODE" according to the Digital Token Identifier Foundation ([www.dtif.org](http://www.dtif.org), DTI see F.13, FFG DTI see F.14 as of 2025-07-16).

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

Long Name: "NodeOps"

### **D.3 Abbreviation**

Short Name: "NODE"

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

NodeOps (\$NODE) is a crypto-asset deployed on the Ethereum, Arbitrum and BNB Smart Chain blockchains. The project centers around the orchestration of decentralized infrastructure networks (DePINs) and provides access to compute, node hosting, and automation services for Web3 protocols. The \$NODE token facilitates access to these services and is also used in governance and emissions balancing mechanisms across the protocol.

\$NODE integrates into a broader technical and economic framework, though it does not represent a financial instrument, equity interest, or investment contract. It is not designed to offer fixed returns, legal rights, or ownership in any underlying entity, and its usage is limited to the defined scope within the NodeOps ecosystem.

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

Name	Role	Address
Naman Kabra	Beneficial owner of the parent company and UBO of the issuer	VG- Intershore Chambers, Road Town, Tortola, British Virgin Islands, VG1110

Veronica Camano	President of the parent company	VG- Intershore Chambers, Road Town, Tortola, British Virgin Islands, VG1110
Khine Theint Theint Zin	Treasurer of the parent company and Director of the issuer	VG- Intershore Chambers, Road Town, Tortola, British Virgin Islands, VG1110
Zuleyka Aleman Calderon	Secretary of the parent company	VG- Intershore Chambers, Road Town, Tortola, British Virgin Islands, VG1110
Others	Due to the dynamic development of the NodeOps platform, further legal projects or other crypto projects in connection with the crypto-assets are continuously being added. Current listings can be found at: <a href="https://nodeops.network/">https://nodeops.network/</a> .	Not applicable.

#### **D.6 Utility Token Classification**

The token does not classify as a utility token.

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

Not applicable.

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

Various development objectives for the crypto-asset and the underlying platform are planned. For 2025 & 2026, the focus is on innovation initiatives, including a staking campaign, the launch of a staking hub, the introduction of AI-supported watcher nodes, and developer as well as grant initiatives under the BuildOnNodeOps campaign.

Following that, business-oriented measures are intended to follow, such as token launch and listings, the first stage of a mint-and-burn mechanism, the development of a key management system based on trusted execution environments, further product integrations, and the expansion of strategic partnerships and the broader ecosystem.

Next, enterprise-level support for AI-driven workloads and related use cases is foreseen. Additional B2B product integrations and distribution initiatives are planned, along with the second stage of the mint-and-burn mechanism and community expansion across different target groups.

This content and the implied roadmap are subject to change at any given time. They are not binding and no guarantees can be made about it. Past roadmap points are not necessarily implemented. Changes and developments can negatively impact the investors.

#### **D.9 Resource allocation**

NodeOps employs a token model with an initial supply of 678,833,730 \$NODE tokens (according to <https://nodeops.network/tokenomics>, accessed on 2025-07-16). The allocation is as follows:

- 30% is reserved for community and ecosystem growth (10% unlocked at launch, then 6-month cliff and linear vesting over 60 months);
- 15.5% was distributed via a staged airdrop (80% unlocked at launch, 10% after 6 months, 10% after 9 months);
- 2% was allocated to the IDO (fully unlocked at launch);
- 15% is reserved for protocol incentives (15% unlocked at launch, then 6-month cliff and 48-month vesting);
- 15% is allocated to initial contributors (12-month cliff, 60-month vesting); and
- 22.5% is assigned to early backers (12-month cliff, 36-month vesting).

The actual distribution of tokens can be traced on-chain:

For Ethereum:

<https://etherscan.io/token/0x2F714d7b9A035d4ce24af8d9b6091c07E37f43Fb#balance>

S,

for Arbitrum:

<https://arbiscan.io/token/0x2F714d7b9A035d4ce24af8d9b6091c07E37f43Fb#balances>

and for BNB Smart Chain:

<https://bscscan.com/token/0x2f714d7b9a035d4ce24af8d9b6091c07e37f43fb#balances>

The investor must be aware that a public address cannot necessarily be assigned to a single person or other entity why the economic justification and thus possible future actions cannot be determined.

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

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

### **Part E – Information about the offer to the public of crypto-assets or their admission to trading**

#### **E.1 Public offering or admission to trading**

The white paper concerns the admission to trading (i. e. ATTR).

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

The crypto asset is to be listed on the platforms: Bitvavo B.V., Payward Global Solutions Limited and Bitpanda GmbH. Accordingly, admission to trading is being sought.

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

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

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

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

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

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

## **E.6 Oversubscription acceptance**

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

## **E.7 Oversubscription allocation**

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

## **E.8 Issue price**

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

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

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

## **E.10 Subscription fee**

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

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

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

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

The theoretically possible supply is 1,000,000,000 tokens.

## **E.13 Targeted holders**

ALL

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**E.22 Subscription period end**

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

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

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

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

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

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

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

**E.26 Right of withdrawal**

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

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

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

**E.28 Transfer time schedule**

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

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

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

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

Not applicable.

**E.31 CASP identifier**

Not applicable.

**E.32 Placement form**

Not applicable.

**E.33 Trading platforms name**

Bitvavo B.V., Payward Global Solutions Limited and Bitpanda GmbH.

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

Bitvavo B.V.: VAVO

Payward Global Solutions Limited: PGSL

Bitpanda GmbH: Not available.

**E.35 Trading platforms access**

This depends on the trading platform listing the asset.

**E.36 Involved costs**

This depends on the trading platform listing the asset. Investors should always review the current fee structures of platforms before making trading decisions. Furthermore, costs may occur for making transfers out of the platform (i. e. "gas costs" for blockchain network use that may exceed the value of the crypto-asset itself).

**E.37 Offer expenses**

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

**E.38 Conflicts of interest**

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

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

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

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

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

### **Part F – Information about the crypto-assets**

#### **F.1 Crypto-asset type**

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

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

Furthermore, the crypto-asset is not categorized as a financial instrument, deposit, insurance product, pension product, or any other regulated financial product under EU law. It does not grant financial rights, voting rights, or any contractual claims to its holders, ensuring that it remains outside the scope of regulatory frameworks applicable to traditional financial instruments.

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

The \$NODE token is a multifunctional crypto-asset deployed on Ethereum, Arbitrum and BNB Smart Chain. It enables access to decentralized compute and infrastructure orchestration services provided via the NodeOps protocol. Token holders can use \$NODE

to pay for services such as node deployment (Node-as-a-Service), RPC endpoints, AI workloads, staking automation, and private compute jobs.

In addition to this functions, \$NODE serves as a governance token, granting holders the ability to vote on key protocol parameters including token emission ratios, bonding requirements for service providers, and treasury usage. The token also plays a role in the network's economic model via a dynamic burn-and-mint mechanism that adjusts supply based on actual protocol usage.

Thus, the functionality of the \$NODE token includes access to services, protocol governance, and participation in an economic model that reflects real usage demand.

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

Various development objectives for the crypto-asset and the underlying platform are planned. For 2025 & 2026, the focus is on innovation initiatives, including a staking campaign, the launch of a staking hub, the introduction of AI-supported watcher nodes, and developer as well as grant initiatives under the BuildOnNodeOps campaign.

Following that, business-oriented measures are intended to follow, such as token launch and listings, the first stage of a mint-and-burn mechanism, the development of a key management system based on trusted execution environments, further product integrations, and the expansion of strategic partnerships and the broader ecosystem.

Next, enterprise-level support for AI-driven workloads and related use cases is foreseen. Additional B2B product integrations and distribution initiatives are planned, along with the second stage of the mint-and-burn mechanism and community expansion across different target groups.

This content and the implied roadmap are subject to change at any given time. They are not binding and no guarantees can be made about it. Past roadmap points are not necessarily implemented. Changes and developments can negatively impact the investors.

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

**F.4 Type of crypto-asset white paper**

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

**F.5 The type of submission**

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

**F.6 Crypto-asset characteristics**

The tokens are crypto-assets other than EMTs and ARTs, which are available on the Ethereum, Arbitrum Network and the BNB Smart Chain.

The tokens are fungible (up to 18 digits after the decimal point on all chains). The tokens are a digital representation of value, and have no inherent rights attached as well as no intrinsic utility.

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

NodeOps

**F.8 Website of the issuer**

<https://nodeops.network/>

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

2025-12-02

**F.10 Publication date**

2025-12-02

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

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

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

EN

**F.13 Digital token identifier code used to uniquely identify the crypto-asset or each of the several crypto assets to which the white paper relates, where available**

64SMJ07NQ; 83GD8QSC8; 93L6GZ01W

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

KWK003WN7

**F.15 Voluntary data flag**

Mandatory.

**F.16 Personal data flag**

The white paper does contain personal data.

**F.17 LEI eligibility**

The issuer should be eligible for a Legal Entity Identifier.

**F.18 Home Member State**

Ireland

**F.19 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

**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 claim capable of legal enforcement against the issuer or any third party.

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

As the crypto-asset does not establish 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 technical infrastructure of the project - such as participation mechanisms or protocol-level features - serves an operational purpose only and does not create or evidence a contractual or statutory entitlement.

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

Because the crypto-asset does not confer legally enforceable rights or obligations, there are no conditions or mechanisms under which such rights could be modified.

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 any legal position of holders, as no contractual or regulatory rights exist. Holders should not interpret technical updates or governance-related changes as amendments to legally binding entitlements.

#### **G.4 Future public offers**

This white paper refers to admission to trading. The issuer reserves the right to make further offers in the future. This means that future public offers cannot be ruled out. The exact conditions and legal classification for this have not yet been defined. This may have negative consequences for investors at any time.

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

As of the initial minting of 678,833,730 \$NODE tokens, a total of approximately 254,166,667 \$NODE (roughly 37.4% of the genesis supply) are considered to be retained

by the issuer or entities closely associated with the issuer. This includes allocations to Initial Contributors (15%) and Early Backers (22.5%), both of which are subject to long-term vesting schedules (12-month cliff followed by either 36 or 60 months of linear release).

In addition, a further 15% of the token supply was allocated to Protocol Incentives, which, depending on the governance status and level of decentralization at the time of issuance, may still be under the effective control of the issuer or foundation-related entities.

The retained token share represents a substantial proportion of the total supply and may pose centralization risks, particularly during early phases of the project lifecycle. Despite vesting constraints, there is an inherent risk of market impact should large token holders gain liquidity or exercise disproportionate influence over governance decisions. Likewise, it cannot be ruled out that the specified token distributions will occur in full and that no more tokens can be allocated to the issuer. Investors should carefully consider this concentration of supply and the associated governance dynamics when assessing the token's long-term sustainability and economic neutrality.

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

No

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

As the crypto-asset grants no access to neither goods nor services this information is not applicable.

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

Not applicable.

#### **G.9 Non-trading request**

The admission to trading is sought.

#### **G.10 Crypto-assets purchase or sale modalities**

Not applicable, as the admission to trading of the tokens is sought.

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

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

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

No, there are no fixed protocols that can increase or decrease the supply implemented as of 2025-07-16. Nevertheless, it is possible that the owner of the smart-contract has the ability to increase or decrease the token-supply in response to changes in demand. Also, it is possible to decrease the circulating supply, by transferring crypto-assets to so called "burn-addresses", which are addresses that render the crypto-asset "non-transferable" after sent to those addresses.

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

The mint authority (the entity who can create new tokens of that crypto-asset) has the potential right to change the supply of the crypto-assets.

In the context of its tokenomics, the issuer pursues a policy with regard to the creation and burning of crypto-assets, which can be found here: <https://nodeops.network/tokenomics>.

Investors must be aware that this policy may be changed at any time and that this may adversely affect the investor at any time.

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

No, the token does not have value protection schemes.

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

Not applicable.

## **G.16 Compensation schemes**

No, the token does not have compensation schemes.

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

Not applicable.

## **G.18 Applicable law**

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

## **G.19 Competent court**

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

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

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

The crypto asset that is the subject of this white paper is available on multiple DLT networks. These include: Ethereum, Arbitrum and BNB Smart Chain., following the standards described below.

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

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

The following applies for the Ethereum blockchain:

The crypto-asset operates on a well-defined set of protocols and technical standards that are intended to ensure its security, decentralization, and functionality. Below are some of the key ones:

### 1. Network Protocols

The crypto-asset follows a decentralized, peer-to-peer (P2P) protocol where nodes communicate over the crypto-asset's DevP2P protocol using RLPx for data encoding.

- Transactions and smart contract execution are secured through Proof-of-Stake (PoS) consensus.
- Validators propose and attest blocks in Ethereum's Beacon Chain, finalized through Casper FFG.
- The Ethereum Virtual Machine (EVM) executes smart contracts using Turing-complete bytecode.

## 2. Transaction and Address Standards

crypto-asset Address Format: 20-byte addresses derived from Keccak-256 hashing of public keys.

Transaction Types:

- Legacy Transactions (pre-EIP-1559)
- Type 0 (Pre-EIP-1559 transactions)
- Type 1 (EIP-2930: Access list transactions)
- Type 2 (EIP-1559: Dynamic fee transactions with base fee burning)

The Pectra upgrade introduces EIP-7702, a transformative improvement to account abstraction. This allows externally owned accounts (EOAs) to temporarily act as smart contract wallets during a transaction. It provides significant flexibility, enabling functionality such as sponsored gas payments and batched operations without changing the underlying account model permanently.

## 3. Blockchain Data Structure & Block Standards

- the crypto-asset's blockchain consists of accounts, smart contracts, and storage states, maintained through Merkle Patricia Trees for efficient verification.

Each block contains:

- Block Header: Parent hash, state root, transactions root, receipts root, timestamp, gas limit, gas used, proposer signature.
- Transactions: Smart contract executions and token transfers.

- Block Size: No fixed limit; constrained by the gas limit per block (variable over time). In line with Ethereum's scalability roadmap, Pectra includes EIP-7691, which increases the maximum number of ""blobs"" (data chunks introduced with EIP-4844) per block. This change significantly boosts the data availability layer used by rollups, supporting cheaper and more efficient Layer 2 scalability.

#### 4. Upgrade & Improvement Standards

Ethereum follows the Ethereum Improvement Proposal (EIP) process for upgrades.

The following applies for the Arbitrum:

Arbitrum commonly refers to the Arbitrum Rollup, a Layer 2 (L2) blockchain build using the Arbitrum technology suite. The Arbitrum Rollup is an optimistic rollup on top of the Ethereum blockchain. This means that the L2 transactions do not have their own consensus mechanism and are only validated by the execution clients. The so-called sequencer regularly bundles stacks of L2 transactions and publishes them on the L1 network, i.e. Ethereum. Ethereum's consensus mechanism (Proof-of-stake) thus indirectly secures all L2 transactions as soon as they are written to L1.

The following applies for the BNB Smart Chain:

Binance Smart Chain (BSC) is a Layer-1 blockchain that utilizes a Proof-of-Staked Authority (PoSA) consensus mechanism. This mechanism combines elements of Proof-of-Authority (PoA) and Proof-of-Stake (PoS) and is intended to secure the network and validate transactions. In PoSA, validators are selected based on their stake and authority, with the goal of providing fast transaction times and low fees while maintaining network security through staking.

The crypto assets are transferred between the ecosystems using the so-called Bridge. Bridges have, in the past, been very sensitive to malfunctions and hacks. Their usage is connected to additional technical risk. The bridge poses an additional source for adverse

effects on the investor as it retains the right to release, burn and mint portions of the token supply.

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

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

The following applies for the Ethereum blockchain:

Decentralized Ledger: The Ethereum blockchain acts as a decentralized ledger for all token transactions, with the intention to preserving an unalterable record of token transfers and ownership to ensure both transparency and security.

2. Private Key Management: To safeguard their token holdings, users must securely store their wallet's private keys and recovery phrases.
3. Cryptographic Integrity: Ethereum employs elliptic curve cryptography to validate and execute transactions securely, intended to ensure the integrity of all transfers. The Keccak-256 (SHA-3 variant) Hashing Algorithm is used for hashing and address generation. The crypto-asset uses ECDSA with secp256k1 curve for key generation and digital signatures. Next to that, BLS (Boneh-Lynn-Shacham) signatures are used for validator aggregation in PoS.

The following applies for the Arbitrum:

1. Arbitrum-Compatible Wallets: The tokens are supported by all wallets compatible with the Ethereum Virtual Machine (EVM), such as MetaMask and OKX Wallet.
2. Decentralized Ledger: Arbitrum operates as a Layer-2 blockchain on Ethereum and maintains its own decentralized ledger for recording token transactions. Final transaction data is periodically posted to Ethereum Layer 1, ensuring long-term availability and resistance to tampering.

3. ERC-20 Token Standard: The Arbitrum network supports tokens implemented under the ERC-20 standard, the same as on Ethereum.

4. Arbitrum supports what is called MultiVM, which is the combination of EVM support and WASM VM support. The latter one being more efficient (lower gas costs) but specific to Arbitrum.

5. Scalability and Transaction Efficiency:

As a rollup-based Layer-2, Arbitrum is intended to handle high volumes of transactions with lower fees compared to Ethereum Layer 1. This is enabled by off-chain execution and on-chain data posting via optimistic rollup architecture

The following applies for the BNB Smart Chain:

1. BSC-Compatible Wallets

Tokens on BSC are supported by wallets compatible with the Ethereum Virtual Machine (EVM), such as MetaMask. These wallets can be configured to connect to the BSC network and are designed to interact with BSC using standard Web3 interfaces.

2. Ledger

BSC maintains its own decentralized ledger for recording token transactions. This ledger is intended to ensure transparency and security, providing a verifiable record of all activities on the network.

3. BEP-20 Token Standard

BSC supports tokens implemented under the BEP-20 standard, which is tailored for the BSC ecosystem. This standard is designed to facilitate the creation and management of tokens on the network.

4. Scalability and Transaction Efficiency

BSC is designed to handle high volumes of transactions with low fees. It leverages its PoSA consensus mechanism to achieve fast transaction times and efficient network performance, making it suitable for applications requiring high throughput.

The crypto assets are transferred between the ecosystems using the so-called Bridge. Bridges have, in the past, been very sensitive to malfunctions and hacks. Their usage is connected to additional technical risk. The bridge poses an additional source for adverse effects on the investor as it retains the right to release, burn and mint portions of the token supply.

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

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

The following applies for the Ethereum blockchain:

The following applies to the Ethereum blockchain: The crypto-asset's Proof-of-Stake (PoS) consensus mechanism, introduced with The Merge in 2022, replaces mining with validator staking. Validators must stake at least 32 ETH every block a validator is randomly chosen to propose the next block. Once proposed the other validators verify the blocks integrity. The network operates on a slot and epoch system, where a new block is proposed every 12 seconds, and finalization occurs after two epochs (~12.8 minutes) using Casper-FFG. The Beacon Chain coordinates validators, while the fork-choice rule (LMD-GHOST) ensures the chain follows the heaviest accumulated validator votes. Validators earn rewards for proposing and verifying blocks, but face slashing for malicious behavior or inactivity. PoS aims to improve energy efficiency, security, and scalability, with future upgrades like Proto-Danksharding enhancing transaction efficiency.

The following applies for the Arbitrum:

Arbitrum is a Layer-2 (L2) solution on Ethereum that is developed using the Arbitrum technology suite. L2 transactions do not have their own consensus mechanism and are only validated by the execution clients. The so-called sequencer regularly bundles stacks of L2 transactions and publishes them on the L1 network, i.e. Ethereum. Ethereum's

consensus mechanism (Proof-of-stake) thus indirectly secures all L2 transactions as soon as they are written to L1.

The following applies for the BNB Smart Chain:

Binance Smart Chain (BSC) uses a hybrid consensus mechanism called Proof of Staked Authority (PoSA), which combines elements of Delegated Proof of Stake (DPoS) and Proof of Authority (PoA). This method ensures fast block times and low fees while maintaining a level of decentralization and security. Core Components 1. Validators (so-called "Cabinet Members"): Validators on BSC are responsible for producing new blocks, validating transactions, and maintaining the network's security. To become a validator, an entity must stake a significant amount of BNB (Binance Coin). Validators are selected through staking and voting by token holders. There are 21 active validators at any given time, rotating to ensure decentralization and security. 2. Delegators: Token holders who do not wish to run validator nodes can delegate their BNB tokens to validators. This delegation helps validators increase their stake and improves their chances of being selected to produce blocks. Delegators earn a share of the rewards that validators receive, incentivizing broad participation in network security. 3. Candidates: Candidates are nodes that have staked the required amount of BNB and are in the pool waiting to become validators. They are essentially potential validators who are not currently active but can be elected to the validator set through community voting. Candidates play a crucial role in ensuring there is always a sufficient pool of nodes ready to take on validation tasks, thus maintaining network resilience and decentralization. Consensus Process 4. Validator Selection: Validators are chosen based on the amount of BNB staked and votes received from delegators. The more BNB staked and votes received, the higher the chance of being selected to validate transactions and produce new blocks. The selection process involves both the current validators and the pool of candidates, ensuring a dynamic and secure rotation of nodes. 5. Block Production: The selected validators take turns producing blocks in a PoA-like manner, ensuring that blocks are generated quickly and efficiently. Validators validate transactions, add them to new blocks, and broadcast these blocks to the network. 6. Transaction Finality: BSC achieves fast block times of around 3 seconds and quick transaction finality. This is achieved through the efficient PoSA mechanism that

allows validators to rapidly reach consensus. Security and Economic Incentives 7. Staking: Validators are required to stake a substantial amount of BNB, which acts as collateral to ensure their honest behavior. This staked amount can be slashed if validators act maliciously. Staking incentivizes validators to act in the network's best interest to avoid losing their staked BNB. 8. Delegation and Rewards: Delegators earn rewards proportional to their stake in validators. This incentivizes them to choose reliable validators and participate in the network's security. Validators and delegators share transaction fees as rewards, which provides continuous economic incentives to maintain network security and performance. 9. Transaction Fees: BSC employs low transaction fees, paid in BNB, making it cost-effective for users. These fees are collected by validators as part of their rewards, further incentivizing them to validate transactions accurately and efficiently.

The crypto assets are transferred between the ecosystems using the so-called Bridge. Bridges have, in the past, been very sensitive to malfunctions and hacks. Their usage is connected to additional technical risk. The bridge poses an additional source for adverse effects on the investor as it retains the right to release, burn and mint portions of the token supply.

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

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

The following applies for the Ethereum blockchain:

The crypto-asset's PoS system secures transactions through validator incentives and economic penalties. Validators stake at least 32 ETH and earn rewards for proposing blocks, attesting to valid ones, and participating in sync committees. Rewards are paid in newly issued ETH and transaction fees. Under EIP-1559, transaction fees consist of a base fee, which is burned to reduce supply, and an optional priority fee (tip) paid to validators.

Validators face slashing if they act maliciously and incur penalties for inactivity. This system aims to increase security by aligning incentives while making the crypto-asset's fee structure more predictable and deflationary during high network activity.

The following applies for the Arbitrum:

Arbitrum is a Layer-2 (L2) solution on Ethereum that is developed using the Arbitrum technology suite. Transaction on Arbitrum are bundled by a, so called, sequencer and the result is regularly submitted as an Layer-1 (L1) transactions. This way many L2 transactions get combined into a single L1 transaction. This lowers the average transaction cost per transaction, because many L2 transactions together fund the transaction cost for the single L1 transaction. This creates incentives to use Arbitrum rather than the L1, i.e. Ethereum, itself. To get crypto-assets in and out of Arbitrum, a special smart contract on Ethereum is used. Since there is no consensus mechanism on L2 an additional mechanism ensures that only existing funds can be withdrawn from L2. When a user wants to withdraw funds, that user needs to submit a withdrawal request on L1. If this request remains undisputed for a period of time the funds can be withdrawn. During this time period Arbitrum validators can dispute the claim, which will start a dispute resolution process. This process is designed with economic incentives for correct behavior of all participants.

The following applies for the BNB Smart Chain:

Binance Smart Chain (BSC) uses the Proof of Staked Authority (PoSA) consensus mechanism to ensure network security and incentivize participation from validators and delegators. Incentive Mechanisms 1. Validators: Staking Rewards: Validators must stake a significant amount of BNB to participate in the consensus process. They earn rewards in the form of transaction fees and block rewards. Selection Process: Validators are selected based on the amount of BNB staked and the votes received from delegators. The more BNB staked and votes received, the higher the chances of being selected to validate transactions and produce new blocks. 2. Delegators: Delegated Staking: Token holders can delegate their BNB to validators. This delegation increases the validator's total stake

and improves their chances of being selected to produce blocks. Shared Rewards: Delegators earn a portion of the rewards that validators receive. This incentivizes token holders to participate in the network's security and decentralization by choosing reliable validators. 3. Candidates: Pool of Potential Validators: Candidates are nodes that have staked the required amount of BNB and are waiting to become active validators. They ensure that there is always a sufficient pool of nodes ready to take on validation tasks, maintaining network resilience. 4. Economic Security: Slashing: Validators can be penalized for malicious behavior or failure to perform their duties. Penalties include slashing a portion of their staked tokens, ensuring that validators act in the best interest of the network. Opportunity Cost: Staking requires validators and delegators to lock up their BNB tokens, providing an economic incentive to act honestly to avoid losing their staked assets. Fees on the Binance Smart Chain 5. Transaction Fees: Low Fees: BSC is known for its low transaction fees compared to other blockchain networks. These fees are paid in BNB and are essential for maintaining network operations and compensating validators. Dynamic Fee Structure: Transaction fees can vary based on network congestion and the complexity of the transactions. However, BSC ensures that fees remain significantly lower than those on the Ethereum mainnet. 6. Block Rewards: Incentivizing Validators: Validators earn block rewards in addition to transaction fees. These rewards are distributed to validators for their role in maintaining the network and processing transactions. 7. Cross-Chain Fees: Interoperability Costs: BSC supports cross-chain compatibility, allowing assets to be transferred between Binance Chain and Binance Smart Chain. These cross-chain operations incur minimal fees, facilitating seamless asset transfers and improving user experience. 8. Smart Contract Fees: Deployment and Execution Costs: Deploying and interacting with smart contracts on BSC involves paying fees based on the computational resources required. These fees are also paid in BNB and are designed to be cost-effective, encouraging developers to build on the BSC platform.

The crypto assets are transferred between the ecosystems using the so-called Bridge. Bridges have, in the past, been very sensitive to malfunctions and hacks. Their usage is connected to additional technical risk. The bridge poses an additional source for adverse effects on the investor as it retains the right to release, burn and mint portions of the token supply.

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

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

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

Not applicable.

## **H.8 Audit**

In the context of these crypto assets, audits were conducted to review components of the technology. Investors should be aware that in complex and decentralized networks, it is impossible to test all components for every conceivable scenario.

## **H.9 Audit outcome**

Two reports are available in connection with the crypto asset.

Halborn report: [https://drive.google.com/file/d/1irkFbf0t092Ud-E-03uShZ-F0uSYj-Ei/view?usp=drive\\_link](https://drive.google.com/file/d/1irkFbf0t092Ud-E-03uShZ-F0uSYj-Ei/view?usp=drive_link)

Oak Security report: <https://github.com/oak-security/audit-reports/blob/main/NodeOps/2025-06-25%20Audit%20Report%20-%20NodeOps%20Network.pdf>

# **Part I – Information on risks**

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

### 1. Regulatory and Compliance

This white paper has been prepared with utmost caution; however, uncertainties in the regulatory requirements and future changes in regulatory frameworks could potentially impact the token's legal status and its tradability. There is also a high probability that other laws will come into force, changing the rules for the trading of the token. Therefore, such developments shall be monitored and acted upon accordingly.

### 2. Operational and Technical

Blockchain Dependency: The token is entirely dependent on the blockchains the crypto-asset is issued upon (as of 2025-07-17). Any issues, such as downtime, congestion, or security vulnerabilities within the blockchain, could adversely affect the token's functionality.

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

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

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

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

### 3. Market and Liquidity

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

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

### 4. Counterparty

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

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

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

## 5. Liquidity

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

## 6. Failure of one or more Counterparties

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

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

## **I.2 Issuer-related risks**

### 1. Insolvency

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

### 2. Counterparty

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

### 3. Legal and Regulatory Compliance

Cryptocurrencies and blockchain-based technologies are subject to evolving regulatory landscapes worldwide. Regulations vary across jurisdictions and may be subject to significant changes. Non-compliance can result in investigations, enforcement actions,

penalties, fines, sanctions, or the prohibition of the trading of the crypto-asset impacting its viability and market acceptance. This could also result in the issuer to be subject to private litigation. The beforementioned would most likely also lead to changes with respect to trading of the crypto-asset that may negatively impact the value, legality, or functionality of the crypto-asset.

#### 4. Operational

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

#### 5. Industry

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

#### 6. Reputational

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

#### 7. Competition

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

#### 8. Unanticipated Risk

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

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

#### 1. Valuation

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

## 2. Market Volatility

Crypto-asset prices are highly susceptible to dramatic fluctuations influence by various factors, including market sentiment, regulatory changes, technological advancements, and macroeconomic conditions. These fluctuations can result in significant financial losses within short periods, making the market highly unpredictable and challenging for investors. This is especially true for crypto-assets without any intrinsic value, and investors should be prepared to lose the complete amount of money invested in the respective crypto-assets.

## 3. Liquidity Challenges

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

## 4. Asset Security

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

## 5. Scams

The irrevocability of transactions executed using blockchain infrastructure, as well as the pseudonymous nature of blockchain ecosystems, attracts scammers. Therefore, investors in crypto-assets must proceed with a high degree of caution when investing in

if they invest in crypto-assets. Typical scams include – but are not limited to – the creation of fake crypto-assets with the same name, phishing on social networks or by email, fake giveaways/airdrops, identity theft, among others.

## 6. Blockchain Dependency

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

## 7. Smart Contract Vulnerabilities

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

## 8. Privacy Concerns

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

## 9. Regulatory Uncertainty

The regulatory environment surrounding crypto-assets is constantly evolving, which can directly impact their usage, valuation, and legal status. Changes in regulatory frameworks may introduce new requirements related to consumer protection, taxation, and anti-money laundering compliance, creating uncertainty and potential challenges for investors and businesses operating in the crypto space. Although the crypto-asset do not create or confer any contractual or other obligations on any party, certain regulators may nevertheless qualify the crypto-asset as a security or other financial instrument under their applicable law, which in turn would have drastic consequences for the crypto-asset, including the potential loss of the invested capital in the asset. Furthermore, this could lead to the sellers and its affiliates, directors, and officers being obliged to pay fines, including federal civil and criminal penalties, or make the crypto-asset illegal or impossible to use, buy, or sell in certain jurisdictions. On top of that, regulators could take action

against the issuer as well as the trading platforms if the regulators view the token as an unregistered offering of securities or the operations otherwise as a violation of existing law. Any of these outcomes would negatively affect the value and/or functionality of the crypto-asset and/or could cause a complete loss of funds of the invested money in the crypto-asset for the investor.

#### 10. Counterparty risk

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

#### 11. Reputational concerns

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

#### 12. Technological Innovation

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

#### 13. Community and Narrative

As the crypto-asset has no intrinsic value, all trading activity is based on the intended market value is heavily dependent on its community and the popularity of the memecoin narrative. Declining interest or negative sentiment could significantly impact the token's value.

#### 14. Interest Rate Change

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

## 15. Taxation

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

## 16. Anti-Money Laundering/Counter-Terrorism Financing

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

## 17. Market Abuse

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

## 18. Timeline and Milestones

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

## 19. DAO Risks

The novel governance structure of a DAO, which has a significant influence on the project, creates additional risks for investors. The DAO can make decisions that adversely affect the investor.

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

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

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

As this white paper relates to the "Admission to trading" of the crypto-asset, the technology-related risks mainly lie in the settling on the involved networks.

##### 1. Blockchain Dependency Risks

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

Scalability Challenges: Despite the blockchains comparatively high throughput design, unexpected demand or technical issues might compromise its performance.

##### 2. Smart Contract Risks

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

##### 3. Wallet and Storage Risks

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

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

##### 4. Network Security Risks

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

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

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

6. Bridges: The crypto assets are transferred between the ecosystems using the so-called Bridge. Bridges have, in the past, been very sensitive to malfunctions and hacks. Their usage is connected to additional technical risk. The bridge poses an additional source for adverse effects on the investor as it retains the right to release, burn and mint portions of the token supply.

## **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**

NodeLas Labs Limited

### **S.2 Relevant legal entity identifier**

Not available.

### **S.3 Name of the cryptoasset**

NodeOps

#### **S.4 Consensus Mechanism**

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

The following applies for the Ethereum blockchain:

The following applies to the Ethereum blockchain: The crypto-asset's Proof-of-Stake (PoS) consensus mechanism, introduced with The Merge in 2022, replaces mining with validator staking. Validators must stake at least 32 ETH every block a validator is randomly chosen to propose the next block. Once proposed the other validators verify the blocks integrity. The network operates on a slot and epoch system, where a new block is proposed every 12 seconds, and finalization occurs after two epochs (~12.8 minutes) using Casper-FFG. The Beacon Chain coordinates validators, while the fork-choice rule (LMD-GHOST) ensures the chain follows the heaviest accumulated validator votes. Validators earn rewards for proposing and verifying blocks, but face slashing for malicious behavior or inactivity. PoS aims to improve energy efficiency, security, and scalability, with future upgrades like Proto-Danksharding enhancing transaction efficiency.

The following applies for the Arbitrum:

Arbitrum is a Layer-2 (L2) solution on Ethereum that is developed using the Arbitrum technology suite. L2 transactions do not have their own consensus mechanism and are only validated by the execution clients. The so-called sequencer regularly bundles stacks of L2 transactions and publishes them on the L1 network, i.e. Ethereum. Ethereum's consensus mechanism (Proof-of-stake) thus indirectly secures all L2 transactions as soon as they are written to L1.

The following applies for the BNB Smart Chain:

Binance Smart Chain (BSC) uses a hybrid consensus mechanism called Proof of Staked Authority (PoSA), which combines elements of Delegated Proof of Stake (DPoS) and Proof of Authority (PoA). This method ensures fast block times and low fees while maintaining a level of decentralization and security. Core Components 1. Validators (so-called "Cabinet Members"): Validators on BSC are responsible for producing new blocks, validating transactions, and maintaining the network's security. To become a validator, an entity must stake a significant amount of BNB (Binance Coin). Validators are selected through staking and voting by token holders. There are 21 active validators at any given time, rotating to ensure decentralization and security. 2. Delegators: Token holders who do not wish to run validator nodes can delegate their BNB tokens to validators. This delegation helps validators increase their stake and improves their chances of being selected to produce blocks. Delegators earn a share of the rewards that validators receive, incentivizing broad participation in network security. 3. Candidates: Candidates are nodes that have staked the required amount of BNB and are in the pool waiting to become validators. They are essentially potential validators who are not currently active but can be elected to the validator set through community voting. Candidates play a crucial role in ensuring there is always a sufficient pool of nodes ready to take on validation tasks, thus maintaining network resilience and decentralization. Consensus Process 4. Validator Selection: Validators are chosen based on the amount of BNB staked and votes received from delegators. The more BNB staked and votes received, the higher the chance of being selected to validate transactions and produce new blocks. The selection process involves both the current validators and the pool of candidates, ensuring a dynamic and secure rotation of nodes. 5. Block Production: The selected validators take turns producing blocks in a PoA-like manner, ensuring that blocks are generated quickly and efficiently. Validators validate transactions, add them to new blocks, and broadcast these blocks to the network. 6. Transaction Finality: BSC achieves fast block times of around 3 seconds and quick transaction finality. This is achieved through the efficient PoSA mechanism that allows validators to rapidly reach consensus. Security and Economic Incentives 7. Staking: Validators are required to stake a substantial amount of BNB, which acts as collateral to ensure their honest behavior. This staked amount can be slashed if validators act maliciously. Staking incentivizes validators to act in the network's best interest to avoid losing their staked BNB. 8. Delegation and Rewards: Delegators earn rewards

proportional to their stake in validators. This incentivizes them to choose reliable validators and participate in the network's security. Validators and delegators share transaction fees as rewards, which provides continuous economic incentives to maintain network security and performance. 9. Transaction Fees: BSC employs low transaction fees, paid in BNB, making it cost-effective for users. These fees are collected by validators as part of their rewards, further incentivizing them to validate transactions accurately and efficiently.

The crypto assets are transferred between the ecosystems using the so-called Bridge. Bridges have, in the past, been very sensitive to malfunctions and hacks. Their usage is connected to additional technical risk. The bridge poses an additional source for adverse effects on the investor as it retains the right to release, burn and mint portions of the token supply.

### **5.5 Incentive Mechanisms and Applicable Fees**

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

The following applies for the Ethereum blockchain:

The crypto-asset's PoS system secures transactions through validator incentives and economic penalties. Validators stake at least 32 ETH and earn rewards for proposing blocks, attesting to valid ones, and participating in sync committees. Rewards are paid in newly issued ETH and transaction fees. Under EIP-1559, transaction fees consist of a base fee, which is burned to reduce supply, and an optional priority fee (tip) paid to validators. Validators face slashing if they act maliciously and incur penalties for inactivity. This system aims to increase security by aligning incentives while making the crypto-asset's fee structure more predictable and deflationary during high network activity.

The following applies for the Arbitrum:

Arbitrum is a Layer-2 (L2) solution on Ethereum that is developed using the Arbitrum technology suite. Transaction on Arbitrum are bundled by a so called, sequencer and the result is regularly submitted as an Layer-1 (L1) transactions. This way many L2 transactions get combined into a single L1 transaction. This lowers the average transaction cost per transaction, because many L2 transactions together fund the transaction cost for the single L1 transaction. This creates incentives to use Arbitrum rather than the L1, i.e. Ethereum, itself. To get crypto-assets in and out of Arbitrum, a special smart contract on Ethereum is used. Since there is no consensus mechanism on L2 an additional mechanism ensures that only existing funds can be withdrawn from L2. When a user wants to withdraw funds, that user needs to submit a withdrawal request on L1. If this request remains undisputed for a period of time the funds can be withdrawn. During this time period Arbitrum validators can dispute the claim, which will start a dispute resolution process. This process is designed with economic incentives for correct behavior of all participants.

The following applies for the BNB Smart Chain:

Binance Smart Chain (BSC) uses the Proof of Staked Authority (PoSA) consensus mechanism to ensure network security and incentivize participation from validators and delegators. Incentive Mechanisms 1. Validators: Staking Rewards: Validators must stake a significant amount of BNB to participate in the consensus process. They earn rewards in the form of transaction fees and block rewards. Selection Process: Validators are selected based on the amount of BNB staked and the votes received from delegators. The more BNB staked and votes received, the higher the chances of being selected to validate transactions and produce new blocks. 2. Delegators: Delegated Staking: Token holders can delegate their BNB to validators. This delegation increases the validator's total stake and improves their chances of being selected to produce blocks. Shared Rewards: Delegators earn a portion of the rewards that validators receive. This incentivizes token holders to participate in the network's security and decentralization by choosing reliable validators. 3. Candidates: Pool of Potential Validators: Candidates are nodes that have staked the required amount of BNB and are waiting to become active validators. They

ensure that there is always a sufficient pool of nodes ready to take on validation tasks, maintaining network resilience. 4. Economic Security: Slashing: Validators can be penalized for malicious behavior or failure to perform their duties. Penalties include slashing a portion of their staked tokens, ensuring that validators act in the best interest of the network. Opportunity Cost: Staking requires validators and delegators to lock up their BNB tokens, providing an economic incentive to act honestly to avoid losing their staked assets. Fees on the Binance Smart Chain 5. Transaction Fees: Low Fees: BSC is known for its low transaction fees compared to other blockchain networks. These fees are paid in BNB and are essential for maintaining network operations and compensating validators. Dynamic Fee Structure: Transaction fees can vary based on network congestion and the complexity of the transactions. However, BSC ensures that fees remain significantly lower than those on the Ethereum mainnet. 6. Block Rewards: Incentivizing Validators: Validators earn block rewards in addition to transaction fees. These rewards are distributed to validators for their role in maintaining the network and processing transactions. 7. Cross-Chain Fees: Interoperability Costs: BSC supports cross-chain compatibility, allowing assets to be transferred between Binance Chain and Binance Smart Chain. These cross-chain operations incur minimal fees, facilitating seamless asset transfers and improving user experience. 8. Smart Contract Fees: Deployment and Execution Costs: Deploying and interacting with smart contracts on BSC involves paying fees based on the computational resources required. These fees are also paid in BNB and are designed to be cost-effective, encouraging developers to build on the BSC platform.

The crypto assets are transferred between the ecosystems using the so-called Bridge. Bridges have, in the past, been very sensitive to malfunctions and hacks. Their usage is connected to additional technical risk. The bridge poses an additional source for adverse effects on the investor as it retains the right to release, burn and mint portions of the token supply.

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

2024-07-16

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

2025-07-16

**S.8 Energy consumption**

338.36628 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 networks BNB Smart Chain, Arbitrum and Ethereum 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.

**S.10 Renewable energy consumption**

27.3000000000 %

**S.11 Energy intensity**

0.00000 kWh

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

0.00000 tCO2e/a

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

0.14448 tCO2e/a

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

0.00000 kgCO2e

#### **S.15 Key energy sources and methodologies**

To determine the proportion of renewable energy usage, the locations of the nodes are to be determined using public information sites, open-source crawlers and crawlers developed in-house. If no information is available on the geographic distribution of the nodes, reference networks are used which are comparable in terms of their incentivization structure and consensus mechanism. This geo-information is merged with public information from Our World in Data, see citation. The intensity is calculated as the marginal energy cost wrt. one more transaction. Ember (2025); Energy Institute - Statistical Review of World Energy (2024) - with major processing by Our World in Data. "Share of electricity generated by renewables - Ember and Energy Institute" [dataset]. Ember, "Yearly Electricity Data Europe"; Ember, "Yearly Electricity Data"; Energy Institute, "Statistical Review of World Energy" [original data]. Retrieved from <https://ourworldindata.org/grapher/share-electricity-renewables>.

#### **S.16 Key GHG sources and methodologies**

To determine the GHG Emissions, the locations of the nodes are to be determined using public information sites, open-source crawlers and crawlers developed in-house. If no information is available on the geographic distribution of the nodes, reference networks are used which are comparable in terms of their incentivization structure and consensus mechanism. This geo-information is merged with public information from Our World in Data, see citation. The intensity is calculated as the marginal emission wrt. one more transaction. Ember (2025); Energy Institute - Statistical Review of World Energy (2024) - with major processing by Our World in Data. "Carbon intensity of electricity generation - Ember and Energy Institute" [dataset]. Ember, "Yearly Electricity Data Europe"; Ember, "Yearly Electricity Data"; Energy Institute, "Statistical Review of World Energy" [original data]. Retrieved from <https://ourworldindata.org/grapher/carbon-intensity-electricity>

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