CausisIntel Software GmbH

BCUT MiCA White Paper

White Paper published in accordance with the Markets in Crypto-Assets Regulation for the European Union & European Economic Area

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Contents

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FOREWORD

This document was written by **CausisIntel Software GmbH** (also referred to as "**bitsCrunch**" in this document) and constitutes the White Paper for the public offering of the crypto-asset " **bitsCrunch token**", abbreviated "**BCUT**" (also referred to as "**crypto-asset**" or "**token**" in this document) in accordance with the provisions of Article 6 " *Content and form of the crypto-asset white paper*" and Annex I of EU Regulation 2023/1114 ("**MiCA Regulation**" or "**MiCAR**").

This White Paper aims to provide essential information on the characteristics, functions and risks relating to the BCUT for users located in the European Union (EU) who are considering acquiring it. This White Paper also provides general information about the EUR-O regarding the issuer, the rights and obligations attached to the BCUT, the underlying technology used for the BCUT offer, and the corresponding risks.

A "functional" White Paper (which was not drafted as part of MiCAR) is also available on the bitsCrunch website (*link*). For a more comprehensive understanding of the platform's functionality, we recommend that you refer to it. Finally, we invite you to read our Blog (*link*) and our Docs (*link*) before, purchasing BCUTs or using the bitsCrunch website.

If the content of this White Paper differs from the content of the other documentation provided by bitsCrunch, this White Paper will take precedence over the other documents for BCUT holders based in an EU Member State.

LEGAL NOTICES

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 offeror of the crypto-asset is solely responsible for the content of this crypto-asset White Paper.

03 **Compliance statement in accordance with Article 6(6) of Regulation (EU) 2023/1114.** This crypto-asset White Paper complies with Title II of Regulation (EU) 2023/1114 and, to the best of the knowledge of the management body, the information presented in the crypto-asset White Paper is fair, clear and not misleading and the crypto-asset White Paper makes no omission likely to affect its import.

04 **Statement in accordance with Article 6(5), points (a), (b), (c) of Regulation (EU) 2023/1114.** The crypto-asset referred to in this white paper may lose its value in part or in full, may not always be transferable and may not be liquid.

05 **Statement in accordance with Article 6(5), point (d) of Regulation (EU) 2023/1114.** The utility token referred to in this White Paper may not be exchangeable against the good or service promised in the crypto-asset White Paper, especially in the case of a failure.

06 **Statement in accordance with Article 6(5), points (e) and (f) of Regulation (EU) 2023/1114.** The crypto-asset referred to in this White Paper is not covered by the investor compensation schemes under Directive 97/9/EC of the European Parliament and of the Council. The crypto-asset referred to in this White Paper is not covered by the deposit guarantee schemes under Directive 2014/49/EU of the European Parliament and of the Council.

SUMMARY

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

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 (36) or any other offer document pursuant to Union or national law

08 **Characteristics of the crypto-asset**

About BCUT. The BCUT token is a crypto-asset native to the bitsCrunch network, providing access to enriched NFT, Token, DeFi and other digital asset data within the bitsCrunch ecosystem. Its primary function is to facilitate smooth operations within the network, and it is intended solely for use as a utility token. The secure functioning of the bitsCrunch ecosystem relies on a combination of cryptographic techniques and economic incentives to drive adoption and ensure network security.

- Price of 1 BCUT at TGE (Token Generation Event): $0.08
- Total Supply: 1,000,000,000 BCUT (inflation of 3+% yearly after 4 years)
- The real-time value of the number of holders, total transfers, price, on-chain market cap and circulating supply market cap is publicly accessible on Etherscan: https://etherscan.io/token/0xbef26bd568e421d6708cca55ad6e35f8bfa0c406

The BCUT Offer in the EU. This White Paper has been prepared for BCUT's public offering in the EU. The public offering is conducted by CausisIntel Software GmbH, a German company, which is presented in detail in Part A.

Holders' Rights. By holding BCUT, you have ownership of your token, which allows you to transfer and stake it and provide liquidity. Holding BCUT tokens does not give you any rights (political or financial) with regard to CausisIntel Software GmbH, which could be considered as equity securities.

Holders' Obligations. As a holder of a BCUT, you have certain obligations. These obligations are detailed in Part G.

Risk Warning. Holding BCUT tokens involves the risk of partial or total loss of capital. Although measures to limit these risks are in place (see Part I), you accept and understand that you alone assume these risks if you choose to purchase BCUTs. In any case, you accept and understand that bitsCrunch cannot be held responsible for any loss related to your holding of BCUTs.

09 Information about the quality and quantity of good or services to which the utility token give access and restrictions on the transferability

BCUT enables holders to engage with bitsCrunch's network functionalities: it powers data queries, allows operators to perform critical tasks, and rewards contributors who enrich platform data with artificial intelligence and machine learning algorithms. By staking BCUT, participants enhance network security and signal their commitment to upholding the integrity of the ecosystem. This staking mechanism underpins both the quality and the quantity of the services provided: staked tokens help sustain reliable and unbiased data flows, thereby ensuring the network's robust performance. BCUT also offers potential discounts to data consumers, who can stake tokens to obtain preferential pricing on query services, thereby promoting active, cooperative participation in the network's growth.

Governance. BCUT confers voting rights and the ability to propose network upgrades or policy changes, thus facilitating a decentralised decision-making structure. This governance model ensures that token holders not only benefit from but also help shape the evolving services offered by bitsCrunch. As the token supply is managed through governance protocols, its distribution and available quantity are calibrated to encourage responsible network expansion and user adoption.

Transferability. BCUT is designed primarily as a functional token for the bitsCrunch ecosystem and may be subject to local regulatory or compliance requirements in certain jurisdictions. While BCUT can typically be transferred between compatible wallets, it remains subject to any applicable lock-up or staking periods implemented to safeguard network security and incentivise long-term commitment. These measures are intended to preserve the token's fundamental utility rather than restrict legitimate user activities.

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

This White Paper was not prepared as part of an initial token offering such as an ICO (*Initial Coin Offering*) or an IDO (*Initial DEX Offering*)[1]. Rather, in accordance with the relevant provisions of MiCAR, bitsCrunch's communications to EU persons—providing sufficient details on both the conditions of the offering and the nature of BCUT—are considered as an "offer" within the meaning of that regulation.

The offer encompasses the entirety of the BCUT token supply—i.e., up to 1,000,000,000 tokens—without any specific minimum or maximum subscription goals. During the TGE on 20 February 2024, BCUT was initially issued at a price of 0.08 USD per token. This TGE took place on Bybit, Gate.io, CoinList, Uniswap, and Kucoin, starting at 13:00 UTC. No additional subscription fees were imposed on purchasers.

As regards to token allocation, 30% of the total supply was sold reserved for the private and public sales (23% to private institutional investors and angels, 7% to public via CoinList platform), 17% for team members and advisors, 13% as marketing and reserve fund, 23% to foundation for ecosystem, listing, partnerships and 17% for Community incentives (staking, contribution, airdrops). The prospective holders include any parties interested in bitsCrunch's value proposition, subject to applicable legal restrictions in their respective jurisdictions.

The initial distribution of BCUT was structured in multiple phases, details of which are set out in Part E of this White Paper. Admission to trading may be sought on appropriate trading platforms, but the

[1] bitsCrunch had a token public sale on the 14th of Dec 2023 on CoinList, details are here: https://coinlist.co/bitscrunch.

specifics of such admissions depend on each platform's listing procedures and regulatory requirements.

PART A – INFORMATION ABOUT THE OFFEROR OR THE PERSON SEEKING ADMISSION TO TRADING

A.1 Name of the offeror

CausisIntel Software GmbH

A.2 Legal Form

Gesellschaft mit beschränkter Haftung (GmbH).

A.3 Registered Address

Dachauer Straße 354 a, 80993 München.

A.4 Head office

Fürstenrieder Str. 275, 81377 München.

A.5 Registration date

02.08.2021

A.6 Legal Entity Identifier

Not Applicable.

A.7 Another Identifier Required Pursuant to Applicable National Law

HRB 268320 (München)

A.8 Contact Telephone Number

+49 (0)89-74 12 00

A.9 E-mail Address

info@bitscrunch.com

A.10 Response Time (Days)

Five (5) working days.

A.11 Parent Company

Not Applicable.

A.12 Members of the Management Body

- Saravanan Jaichandaran, Co-Founder and Chief Data Scientist.
- Ajay Prashanth, Co-Founder and Head of Ecosystem Growth.

A.13 Business Activity

Development and marketing of software for applications in blockchain technology, as well as all related services.

A.14 Parent Company Business Activity

Not Applicable.

A.15 Newly Established

False

A.16 Financial Condition for the past three Years

Since its establishment, bitsCrunch has consistently maintained a sound financial position, underpinned by steady revenue growth from its core activity as a software development company. Although exact financial figures for the period from 2022 to the present are not publicly disclosed in this White Paper, the Company has not encountered any significant liquidity challenges or material adverse events that would compromise its solvency. Throughout this timeframe, bitsCrunch has operated free from any bankruptcy, insolvency, or restructuring proceedings, nor is it subject to any such collective measures.

A.17 Financial Condition Since Registration

BitsCrunch was registered with an initial share capital of €25,000.00.

PART B – INFORMATION ABOUT THE ISSUER, IF DIFFERENT FROM TE 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.

B.4 **Registered Address**: Not Applicable.

B.5 **Head Office**: Not Applicable.

B.6 **Registration Date**: Not Applicable.

B.7 **Legal Entity Identifier**: Not Applicable.

B.8 **Another Identifier Required Pursuant to Applicable National Law**: Not Applicable.

B.9 **Parent Company**: Not Applicable.

B.10 **Members of the Management Body**: Not Applicable.

B.11 **Business Activity**: Not Applicable.

B.12 **Parent Company Business Activity**: Not Applicable.

PART C – INFORMATION ABOUT THE OPERATOR OF THE TRADING PLATFORM IN CASES WHERE IT DRAWS UP THE CRYPTO-ASSET WHITE PAPER AND INFORMATION ABOUT OTHER PERSONS DRAWING THE CRYPTO-ASSET WHITE PAPER PURSUANT TO ARTICLE 6(1), SECOND SUBPARAGRAPH, OF REGULATION (EU) 2023/1114

C.1 **Name**: Not Applicable.

C.2 **Legal Form**: Not Applicable.

C.3 **Registered Address**: Not Applicable.

C.4 **Head Office**: Not Applicable.

C.5 **Registration Date**: Not Applicable.

C.6 **Legal Entity Identifier**: Not Applicable.

C.7 **Another Identifier Required Pursuant to Applicable National Law**: Not Applicable.

C.8 **Parent Company**: Not Applicable.

C.9 **Reason for Crypto-Asset White Paper Preparation**: Not Applicable.

C.10 **Members of the Management Body**: Not Applicable.

C.11 **Operator Business Activity**: Not Applicable.

C.12 **Parent Company Business Activity**: Not Applicable.

C.13 **Other persons drawing up the white paper under Article 6 (1) second subparagraph MiCA**: Not Applicable.

C.14 **Reason for drawing up the white paper under Article 6 (1) second subparagraph MiCA**: Not Applicable.

PART D – INFORMATION ABOUT THE CRYPTO-ASSET PROJECT

D.1 **Crypto-Asset Project Name**

BitsCrunch

D.2 **Crypto-Assets Name**

bitsCrunch Token

D.3 **Abbreviation**

BCUT

D.4 **Crypto-Asset Project Description**

The landscape of blockchain analytics and forensics is currently overshadowed by centralized systems, often limited by their financial priorities. This centralization not only restricts vital insights for emerging decentralized web3 projects but also creates barriers for innovative breakthroughs.

The bitsCrunch network leverages advanced AI algorithms and community contributions to gather, process, and enrich data from both on-chain and off-chain sources. By decentralizing data processing and encouraging community-driven innovation, bitsCrunch ensures the accuracy, reliability, and relevance of the data provided.

Key Features:

1. Comprehensive Analytics:
   - Delivering in-depth analytics for NFTs, cryptocurrencies, and DeFi tokens across multiple blockchains.
   - Providing real-time market trends, trading volumes, and asset performance metrics.

2. Fraud Detection and Forensics:

- Implementing sophisticated AI models to detect and alert users about fraudulent activities such as wash trading, counterfeit NFTs, and suspicious transactions.
- Enhancing security by continuously updating forensic tools through community contributions.

3. Accurate Valuation and Market Insights:
   - Utilizing machine learning algorithms to offer precise asset valuations, helping users make informed investment decisions.
   - Analyzing social media sentiment and predicting market trends to provide a holistic view of the blockchain ecosystem.

4. Compliance and AML:
   - Generating comprehensive Anti-Money Laundering (AML) and compliance reports to assist financial institutions and regulatory bodies.
   - Ensuring transparent and compliant transactions within the blockchain space.

5. Community-Driven Development:
   - Encouraging developers to contribute new algorithms and insights, fostering a collaborative and innovative environment.
   - Ensuring the platform remains adaptive and up-to-date with the latest developments in the blockchain industry.

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

The development and execution of the bitsCrunch crypto-asset project are led by:

- Saravanan Jaichandaran, Co-Founder and Chief Data Scientist.
- Ajay Prashanth, Co-Founder and Head of Ecosystem Growth.

D.6 Utility Token Classification

True.

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

The BCUT token confers a suite of functionalities designed to ensure the efficient operation, security, and strategic development of the bitsCrunch network. The following key features underpin its utility within the ecosystem:

- **Access to Enriched Data**: BCUT is used to settle fees for data requests through the network's Application Programming Interfaces (APIs). By using BCUT to request enriched, AI-driven analytics, participants gain access to comprehensive NFT and digital asset insights across multiple blockchain environments.

- **Governance Participation (DAO Model):** BCUT underpins decentralised governance through a DAO framework, enabling token holders to propose, debate, and vote on network upgrades and policy directives. This ensures that crucial decisions—ranging from development priorities to token distribution parameters—are driven by collective consensus.

- **Rewards for Node Operators and Delegates:** Both node operators, who maintain and validate the network, and delegates, who stake their BCUT tokens to support these operators, receive rewards for their contributions. This mechanism incentivises broad participation and sustains the integrity and reliability of the network's infrastructure.

- **Network Security via Staking:** By staking BCUT tokens, holders actively participate in safeguarding the network against malicious activities. The staking process imposes a cost on potential adversaries, thereby enhancing the overall resilience and security of the bitsCrunch ecosystem.

- **Reduction of Query Fees:** Users who stake BCUT may be eligible for discounted pricing on data queries. This model not only rewards long-term commitment but also encourages a more vibrant and stable ecosystem, allowing participants to benefit from reduced operational costs while reinforcing network integrity.

D.8 Plans for the Token

The BCUT token is pivotal to the bitsCrunch ecosystem, and its adoption strategy is meticulously designed to foster widespread utilisation across the European Union. The plan comprises several key components:

1. **Market Expansion and Liquidity Enhancement**

   - **Broad Availability:** BCUT will be actively offered throughout the EU, ensuring that the token is accessible to a diverse range of investors and users. Strategic outreach and regulatory compliance initiatives will facilitate market entry across various jurisdictions.

   - **Listing on Reputable Marketplaces:** To bolster liquidity, BCUT is targeted for listing on additional reputable exchanges and trading platforms. This approach is intended to enhance market depth, reduce price volatility, and enable efficient trading for both retail and institutional investors.

2. **Integration within the bitsCrunch Ecosystem**

   - **Ecosystem Functionality:** BCUT is integral to accessing the bitsCrunch network's functionalities, including staking, governance participation, and fee reductions for data queries. This deep integration reinforces the token's utility and encourages continuous engagement.

   - **Interoperability:** With deployment on both Ethereum and Polygon, BCUT benefits from cross-chain interoperability, enabling users to bridge tokens between networks seamlessly and take advantage of the unique benefits offered by each platform.

3. **Adherence to Rigorous Security Standards**

   - **Security Protocols:** bitsCrunch is committed to maintaining the highest security standards. Regular smart contract audits, continuous risk assessments, and robust

cybersecurity measures are integral to protecting user assets and maintaining network integrity.

- **Regulatory Compliance:** All operational aspects of BCUT's deployment are designed to comply with applicable EU regulations and industry best practices, thereby safeguarding token holders' interests and reinforcing market trust.

4. **Stakeholder and Community Engagement**

   - **Transparent Communication:** bitsCrunch will ensure that token holders receive clear, timely, and non-misleading information via dedicated communication channels, including a regularly updated blog and comprehensive documentation.

   - **Active Community Involvement:** By fostering an open and participatory environment, bitsCrunch aims to engage its community through governance initiatives and responsive support channels, ensuring that users can contribute to the network's evolution and benefit from its growth.

While these measures are designed to mitigate risks and promote long-term adoption of the token, bitsCrunch acknowledges that inherent uncertainties persist within the crypto-asset landscape. Prospective BCUT holders are encouraged to consider these risks as part of their overall investment decision.

D.9 Resource Allocation

bitsCrunch employs a carefully structured allocation of resources to ensure sustainable growth, equitable incentives, and robust technological advancement. Specifically, network resources are distributed across four key areas:

1. **Node Operators**: Rewards are allocated to operators for staking and maintaining the infrastructure, thereby upholding the network's stability and reliability.
2. **Delegators**: Participants who commit their tokens to support node operators receive incentives, promoting broader engagement and decentralisation within the ecosystem.
3. **Development Fund**: A portion of tokens is dedicated to enhancing AI models and integrating additional blockchains. This continuous investment ensures the platform remains at the forefront of innovation.
4. **Marketing and Adoption**: Seventy million BCUT tokens are reserved for strategic partnerships and awareness campaigns, designed to foster user growth and bolster market recognition.

Token Economic Model:

BCUT adheres to a utility-based economic framework, beginning with an initial allocation of one billion tokens. This supply is apportioned as follows:

- 230 million BCUT reserved for private sale
- 70 million BCUT made available through the public sale
- 170 million BCUT allocated to team members and advisors
- 230 million BCUT devoted to ecosystem expansion, security, and foundation

- 170 million BCUT allocated for community incentives and airdrop
- 130 million BCUT reserved for marketing and reserve

To align stakeholders' interests and maintain the token's long-term viability, a vesting schedule spans 48 months, controlling the gradual release of tokens. Beyond the fourth year, an inflationary mechanism may be activated through a formal governance process, thereby preserving flexibility for future network growth and ensuring that BCUT remains adaptive to evolving market and technological demands.

D.10 Planned Use of Collected Funds or Crypto-Assets

The funds collected from the issuance of BCUT tokens are allocated to strengthen the strategic and technological objectives of the bitsCrunch Network. These funds are allocated into the following core areas:

1. **Technological Development**: A significant share of the collected assets is devoted to refining and enhancing bitsCrunch's AI and machine learning algorithms. The Company also anticipates progressing towards full decentralisation of the network, aiming to fortify the platform's resilience, scalability, and capacity to address emerging market and user demands.

2. **Infrastructure and Security**: Given the critical importance of trust and reliability, resources are allocated to auditing smart contracts, alongside bolstering decentralised data storage solutions. These initiatives help mitigate vulnerabilities, safeguard user assets, and promote transparency in network operations.

3. **Growth and Adoption**: Another portion of funds is earmarked for fostering the widespread adoption of bitsCrunch's solutions across DeFi platforms, gaming ecosystems, and financial institutions. This includes forming strategic partnerships, developing integrations, and conducting targeted marketing and outreach programs to broaden the platform's global footprint.

4. **Reserve for Security and Contingencies**: The Company maintains a strategic reserve to address unforeseen events, including potential security breaches or technical incidents. By retaining a portion of the token supply, bitsCrunch enhances its capacity to respond rapidly and effectively to risks, thereby ensuring continuity of service and preserving the network's long-term viability.

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 BCUT token will be offered to the public by CausisIntel Software GmbH.

E.2 Reasons for Public Offer or Admission to trading

The reason of this public offer is to facilitate access to the BCUT token on the European market by allowing European Union users to hold BCUT through various CASPs.

E.3 Fundraising Target

Not Applicable.

E.4 Minimum Subscription Goals

Not Applicable.

E5 Maximum Subscription Goal

Not Applicable.

E.6 Oversubscription Acceptance

Not Applicable.

E.7 Oversubscription Allocation

Not Applicable.

E.8 Issue Price

0.31$

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

Not Applicable.

E.10 Subscription fee

Not Applicable.

E.11 Offer Price Determination Method

Not Applicable.

E.12 Total Number of Offered/Traded Crypto-Assets

1,000,000,000.

E.13 Targeted Holders

ALL

E.14 Holder restrictions

Not Applicable.

E.15 Reimbursement Notice

Not Applicable.

E.16 Refund Mechanism

Not Applicable.

E.17 Refund Timeline

Not Applicable.

E.18 Offer phase

- Seed Round Token Sale 100,000,000 – 2021.09
- Private Token Sale 100,000,000 – 2022.02
- Strategic Token Sale 30,000,000 (Extended strategic sale due to demand) – 2023.01
- Public Token Sale 70,000,000 Completed on CoinList – 2023.12.15
- Token Generation Event on centralised and decentralised exchanges – 2024.02.20

E.19 Early Purchase Discount

Early investors such as seed round participants, private sale participants, strategic partners or Coinlist public sale participants benefited from a lower purchase price compared to the TGE on 20 February 2024.

The price of the BUCT token per discount varied according to the investment phase.

E.20 Time-limited offer

Not Applicable.

E.21 Subscription period beginning

Not applicable.

E.22 Subscription period end

Not applicable.

E.23 Safeguarding Arrangements for Offered Funds/Crypto-Assets

Not Applicable.

E.24 Payment Methods for Crypto-Asset Purchase

During the TGE, user were able to obtain BCUT against USDT or WETH depending on the exchange platforms and available trading pairs.

E.25 Value Transfer Methods for Reimbursement

Not Applicable.

E.26 Right of Withdrawal

Not Applicable.

E.27 Transfer of Purchased Crypto-Assets

Not Applicable.

E.28 Transfer Time Schedule

Not Applicable.

E.29 Purchaser's Technical Requirements

To hold the BCUT token, users have different options available:

- Centralised exchanges: Users can buy and sell BCUT through a platform that listed the crypto-asset;
- Decentralized Exchange: Alternatively, users can acquire BCUT tokens on Uniswap on Polygon and Ethereum. By searching for the token's name or address, they can purchase and store it in a self-hosted wallet that is compatible with the appropriate network.

bitsCrunch has prepared a publication on its website (*link*) to explain to potential BCUT holders how they can buy tokens via step-by-step tutorials for several exchange platforms.

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

Not Applicable.

E.31 CASP identifier

Not Applicable.

E.32 Placement form

NTAV

E.33 Trading Platforms name

The BCUT token is listed on several crypto-assets trading platforms. The list of trading platforms where BCUT is traded is subject to change. We recommend that you consult the CoinmarketCap (*link*) or Coingecko (*link*) websites, which regularly update the list of trading platforms available in the event of BCUT being listed on a new trading platform.

E.34 Trading Platforms Market Identifier Code (MIC)

Not available.

E.35 Trading Platforms Access

You can consult the up-to-date list of trading platforms where the BCUT token is listed (see section E.33) and access their website via the instructions given on the same websites.

E.36 Involved costs

Not Applicable.

E.37 Offer Expenses

Not Applicable.

E.38 Conflicts of Interest

Not Applicable.

E.39 Applicable law

Germany.

E.40 Competent court

Landgericht München I or or, if found incompetent, any other competent Court under German law within the jurisdiction of the Munich region.

PART F – INFORMATION ABOUT THE CRYPTO-ASSETS

F.1 Crypto-Asset Type

Utility token.

F.2 Crypto-Asset Functionality

BCUT is the native utility token for the bitsCrunch Network. Its primary function is to facilitate smooth operations within the network, and it is intended solely for use as a utility token. The secure functioning of the bitsCrunch ecosystem relies on a combination of cryptographic techniques and economic incentives to drive adoption and ensure network security. Key functions of the token include:

- **Incentive Alignment**: The token acts as a motivational tool. Because Operators, Delegators, Indicators, and Contributors must stake their tokens, they have skin in the game, which is anticipated to foster collaboration and commitment among them to help grow a secure and decentralized network.
- **Network Security**: Through mechanisms like staking, our token can add layers of security, making malicious activities costly and thereby protecting the network's integrity.

- **Independence**: Having its own token ensures the network's autonomy and reduces reliance on external entities or tokens. It detaches the ecosystem from the volatile dynamics of external cryptocurrencies and aligns rewards directly with sustainable actions. It aligns the token's value and functionality closely with our network's objectives and performance.
- **Economic Design**: The introduction of the token empowers our network with the flexibility to sculpt an economic framework that mirrors our distinctive ecosystem's demands and ethos. For instance, by managing the issuance of BCUT, DAO can regulate its availability, ensuring it's aligned with growth milestones. We could incentivize early adopters with a more generous distribution initially, then taper the issuance rate to control inflation, or introduce deflationary tactics such as token burns to enhance value as the network matures. All these decisions will be formally taken through the governance process.
- **Governance**: The token will enable decentralized governance, where token holders can propose and vote on proposals and changes to the network's protocol
- **Discounting**: Data consumers can stake the token to get a discount on the query pricing.

F.3 Planned Application of Functionalities

The evolution of the bitsCrunch network is currently divided into three phases.

1. The first phase, which was completed as of Q2-2024 involves the creation of the Data Query layer and Query Processor node. During this initial phase, the query processor node will utilize a common shared database. In Phase 1.5, which is a subsequent step to Phase 1, each node in the network will be equipped with its own database, resulting in a decentralized network with no central point of failure. This is an important feature of the network as it increases the security and resilience of the overall system.

2. The second and third phases of development will focus on the creation of the Data Enricher and Data Harvester layers respectively. More details about these phases will be made available as the project progresses. Overall, the development of the network is expected to take three years.

3. Once completed, the network will provide a secure and decentralized platform for querying and processing data, enabling a wide range of applications and use cases.

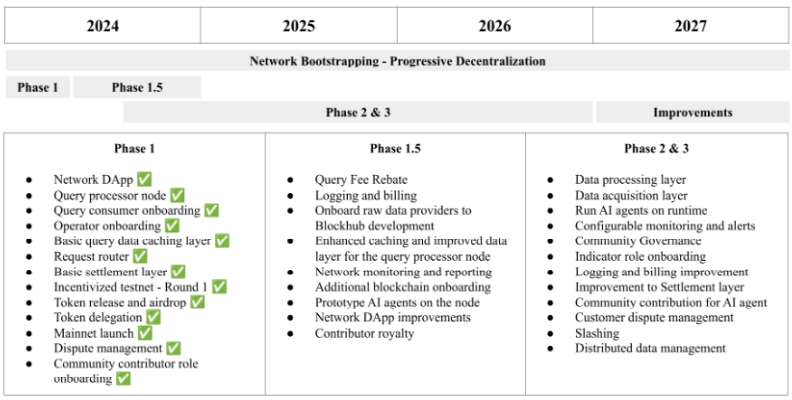


Figure 1 – *Planned development of bitsCrunch from 2024 to 2027.*

F.4 Type of white paper

OTHR

F.5 The type of submission

NEW

F.6 Crypto-Asset Characteristics

The BCUT token has the following key characteristics:

1. **Fungibility**: BCUT is fully fungible, meaning each token holds identical value and can be interchanged on a one-to-one basis. This property ensures consistency and uniformity across transactions, making BCUT a highly adaptable medium for operational and economic activities within the network.

2. **Transferability**: BCUT can be freely transmitted between compatible digital wallets, fostering a frictionless user experience and broadening the scope of potential applications. Token holders retain complete discretion over the timing, purpose, and destination of any transfer, subject only to applicable regulatory or technical limitations in certain jurisdictions.

3. **Multi-Chain**: With interoperability at its core, BCUT is designed to operate across multiple blockchain networks. Holders can bridge BCUT from Ethereum to Polygon, leveraging bitsCrunch's network functionality on either chain, enhancing usability while mitigating network congestion or high transaction costs. This cross-chain compatibility plays a key role in ensuring robust and accessible services, promoting diverse use cases and expanding the token's reach.

Additionally, BCUT holders can assume various roles to support, secure, and advance the network. Below is a non-exhaustive overview of these roles:

1. **Node Operator**: By staking BCUT, Node Operators help secure and maintain the bitsCrunch network. In return for their contributions, they receive fees and rewards. This function is crucial for ensuring the network's stability and resilience, as operators validate transactions and uphold overall performance standards.

2. **Delegator**: Delegators contribute to network security and decentralisation without running a node themselves. They delegate their staked BCUT to Node Operators, thereby indirectly supporting network validation. Delegators earn a share of the rewards proportional to their stake and the performance of the operator(s) they support.

3. **Indicator**: Indicators stake BCUT to shape the direction of the network's AI-driven content, analytics, or data insights. By assuming this role, token holders actively influence how the platform surfaces, organises, and prioritises information, thus contributing to the continuous improvement of the bitsCrunch ecosystem.

4. **Community Contributor**: Community Contributors bolster the network by providing code, content, or other valuable inputs. In recognition of these efforts, they receive BCUT rewards, fostering innovation and engagement. This role encourages a collaborative environment in which users collectively refine and expand bitsCrunch's offerings.

5. **User / Customer / Consumer**: Finally, Users or Customers who conduct frequent data queries and utilise other network services may stake BCUT to benefit from discounted fees. This not only incentivises higher-volume participation but also reinforces the token's utility within the bitsCrunch platform.

Further technical and procedural details concerning these roles are outlined in the bitsCrunch Functional White Paper (*link*). Readers seeking in-depth information are encouraged to consult the relevant sections in that document.

F.7 Commercial name or trading name

Not applicable.

F.8 Website of the issuer

https://bitscrunch.com/

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

2024.02.20

F.10 Publication date

2025.04.03

F.11 Any other services provided by the issuer

The above image represents a part of the runtime that operates the network's AI agents, which are trained specifically to provide one or two inferences. This design keeps the agents small, easy to maintain, and efficient to operate. Some examples of these AI agents include:

1. **IP Infringement Check**: Scans newly minted NFTs for potential intellectual property infringements, ensuring compliance and protecting creators' rights.

2. **Transaction Monitoring Agent**: Monitors the blockchain and pushes out alerts whenever it detects a transaction exceeding $10,000, helping to track large movements of funds.

3. **Whale Alert Monitoring Agent**: Tracks large holders (whales) and alerts users when significant transactions occur, which can indicate market-moving activities.

4. **Honeypot Evaluation Agent**: Evaluates token contracts to identify potential honeypots, protecting users from malicious traps.

5. **Suspicious Activity Detector**: Identifies patterns that may indicate fraudulent or suspicious behavior, such as rapid successive transactions or unusual transaction sizes.

6. **Market Sentiment Analyzer**: Analyzes social media and news feeds to gauge market sentiment around specific assets or the broader market, providing insights for trading strategies.

7. **Smart Contract Vulnerability Scanner**: Scans smart contracts for known vulnerabilities and potential exploits, helping developers to secure their contracts before deployment.

F.12 Identifier of operator of the trading platform

Not Applicable.

F.13 Language or languages of the White Paper

English.

F.14 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

Not Applicable.

F.15 Digital Token Identifier, where available

Not Applicable.

F.16 Voluntary data flag

True.

F.17 Personal data flag

True.

F.18 LEI eligibility

False.

F.19 Home Member State

Germany.

F.20 Host Member States

CausisIntel Software GmbH issues and offers the BUCT token in the following countries:

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czechia
- Denmark

- Estonia
- Finland
- France
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden

PART G – INFORMATION ON THE RIGHTS AND OBLIGATIONS ATTACHED TO THE CRYPTO-ASSETS

G.1 Purchaser Rights and Obligations

By holding BCUT tokens, holders acquire the rights and undertake the obligations described below.

Rights of BCUT Token Holders:

1. **Governance Rights:**
   - **Participation in Decentralised Governance**: BCUT token holders have the right to participate in the bitsCrunch Network's decentralised governance model (DAO). They may propose, discuss, and vote on potential amendments to the protocol, fee structures, incentive mechanisms, and other strategic initiatives.
   - **Delegation of Voting Power**: Token holders who prefer indirect participation can delegate their voting power to trusted parties or community representatives, thus ensuring that those with expert knowledge or particular interest in the network's future can meaningfully contribute on their behalf.
   - **Community-Driven Innovation**: The DAO framework facilitates broad stakeholder engagement, enabling community members to shape the direction of the network. Any participant may propose improvements, raise concerns, or advocate strategic changes, with voting outcomes determined by the number of BCUT tokens held or delegated.

2. **Utility Rights:**
   - **Property-Like Entitlement to Use**: BCUT tokens grant their holders the right to use the tokens on the network's blockchain(s). Specifically, holders may stake

BCUT to secure the network, operate a node, or delegate to node operators, thereby contributing to network stability and decentralisation.

- **Bridging and Multi-Chain Capability**: BCUT is designed for multi-chain functionality. Token holders may bridge BCUT tokens from Ethereum to Polygon (or other supported networks) to access different services within the bitsCrunch ecosystem—such as staking, obtaining fee discounts, and leveraging other network features.
- **Reduced Transaction and Query Fees**: BCUT tokens can be staked to unlock discounted query or transaction fees within the bitsCrunch platform, benefiting both high-volume users and long-term token holders.

3. **Rewards and Incentives:**
   - **Staking Rewards**: By staking BCUT—either as a node operator or by delegating tokens to another operator—holders may earn rewards proportional to their contribution to network security and operations.
   - **Community Contributions**: BCUT token holders who contribute code, develop content, or propose enhancements benefiting the broader ecosystem may also receive token-based rewards, thereby promoting ongoing community-driven innovation.

4. **No Equity or Ownership**: Holding BCUT tokens does not provide any equity interest, shareholder status, or similar rights within CausisIntel Software GmbH. BCUT serves solely as a utility token for accessing, securing, and governing the bitsCrunch Network, and does not convey ownership in or control over the corporate entity itself.

Obligations of BCUT Token Holders:

By acquiring BCUT tokens, holders expressly declare and warrant that they will adhere to the following obligations:

1. **Compliance with the White Paper and Applicable Laws:** Holders undertake to hold and utilise BCUT tokens strictly in accordance with the provisions of this White Paper and all relevant laws and regulations. They agree to review and remain informed about any updates or amendments that may affect their rights or obligations.

2. **Age Requirement:** Holders confirm that they are at least 18 years of age and that they do not hold BCUT on behalf of, or for the benefit of, a minor.

3. **Prohibited Uses:** BCUT tokens shall not be used for unlawful activities of any kind, including, but not limited to, money laundering, fraud, terrorist financing, or other prohibited transactions under applicable law.

4. **Consequences of Non-Compliance:** Any breach of these obligations may result in restrictions on a holder's access to BCUT tokens or network services. In severe cases, bitsCrunch may be required to take further measures, including notifying relevant regulatory or governmental authorities, as permitted or required by law.

G.2 Exercise of Rights and obligations

Rights of BCUT Token Holders

1. **Governance**

BCUT holders have a governance rights by voting on proposals submitted through a dedicated governance forum. These proposals may address network upgrades, fee structures, incentive mechanisms, and other strategic aspects of the bitsCrunch ecosystem. As the project evolves toward complete decentralisation, holders can expect further guidance on quorum requirements, proposal submission processes, and formal voting mechanisms. Token holders are encouraged to stay informed via official bitsCrunch channels to anticipate upcoming governance and decentralisation developments.

2. **Ownership**

– **Transfer and Custody**: By maintaining BCUT tokens in a compatible crypto-asset wallet, holders exercise their ownership rights. Subject to any lock-up or protocol requirements, they may transfer BCUT tokens at their discretion.

– **Jurisdictional Factors**: The practical execution of ownership may vary in accordance with specific legal frameworks. BCUT holders should consult the relevant laws in their jurisdiction to confirm any additional requirements or limitations on holding, transferring, or staking tokens.

3. **Staking**

Staking BCUT typically occurs on the Polygon network. Therefore, holders with tokens on the Ethereum mainnet must bridge their BCUT to Polygon prior to staking. A tutorial on the bitsCrunch website outlines the bridging process in detail, ensuring that token holders can carry out this procedure securely (*link*). Once staked, BCUT tokens confer eligibility for staking rewards, aligning incentives for active participation in network security.

Obligations of BCUT Token Holders

1. **Compliance with White Paper and Applicable Laws :** BCUT holders undertake to use their tokens strictly in accordance with this White Paper, as well as any relevant statutory and regulatory requirements.
2. **Eligibility and Age Requirement:** Holders warrant that they are at least 18 years old and do not hold BCUT on behalf of minors or otherwise in contravention of applicable age-related restrictions.
3. **Prohibition of Unlawful Conduct:** BCUT tokens must not be employed for illicit activities, including but not limited to money laundering, fraud, terrorist financing, or other illegal transactions. Any breach of this prohibition may lead to immediate restrictions, notifications to authorities, or other measures as permitted by law.

In circumstances where token holders fail to adhere to these obligations, bitsCrunch retains the right to impose access restrictions on BCUT-related services and, where legally mandated, report the non-compliance to the competent authorities

G.3 Conditions for modifications of rights and obligations

No predetermined criteria exist for modifying the rights and obligations associated with BCUT tokens. However, CausisIntel Software GmbH, operating the bitsCrunch platform, reserves the right to adjust these rights and obligations should changes in regulatory standards, technical environments,

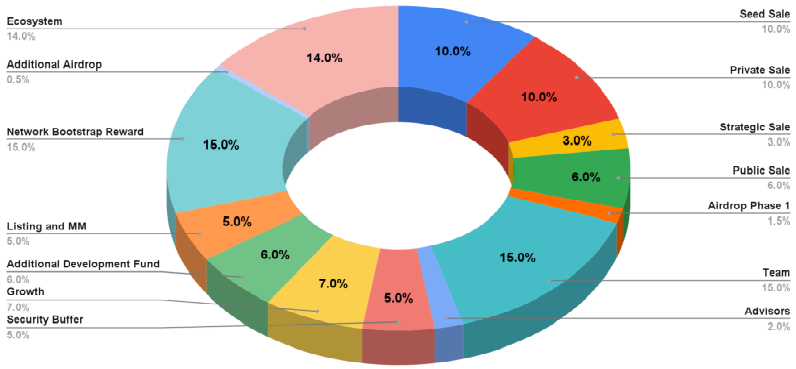
or operational demands require such modifications. In these instances, any amendments will be communicated with sufficient advance notice to allow token holders to adapt to the new conditions.

G.4 Future Public Offers

Not Applicable.

G.5 Issuer Retained Crypto-Assets

Part of the BCUT supply is still held by bitsCrunch to support the growth of the project through various initiatives. The diagram below details how the tokens are sub-allocated, including the tokens held by bitsCrunch.



G.6 Utility Token Classification

Yes

G.7 Key Features of Goods/Services of Utility Tokens

See Parts E.02 and E.06.

G.8 Utility Tokens Redemption

Not Applicable.

G.9 Non-Trading request

False

G.10 Crypto-Assets purchase or sale modalities

Not Applicable.

G.11 Crypto-Assets Transfer Restrictions

Not Applicable.

G.12 Supply Adjustment Protocols

False.

G.13 Supply Adjustment Mechanisms

Not Applicable.

G.14 Token Value Protection Schemes

True.

G.15 Token Value Protection Schemes Description

The token value protection framework of BitsCrunch has been designed to ensure a controlled and strategic release of tokens over predefined periods, thereby mitigating excessive market volatility and preventing undue dilution of token value.

By employing structured vesting schedules across different allocation categories, the mechanism seeks to balance supply and demand, enhance market stability, and promote sustainable token adoption.

Different allocation categories follow specific vesting schedules:

Total Supply	1,000,000,000	Comments
Seed Round Token Sale	100,000,000	Initial seed sale that took place in mid 2021
Private Token Sale	100,000,000	This sale was completed by the beginning of 2022
Strategic Token Sale	30,000,000	Extended strategic sale due to demand
Public Token Sale	70,000,000	Completed on CoinList in December 2023
Team Allocation	150,000,000	Tokens reserved for the team members of the project
Advisor Allocation	20,000,000	Tokens reserved for the advisors of the project
Airdrop 1	15,000,000	Tokens reserved to reward the phase 1 of the testnet
Security Buffer	50,000,000	Tokens reserved to reward bug discoveries or to cover the loss in case of a security incident

Growth	70,000,000	This allocation would go towards marketing, partnerships, community building and user acquisition
Additional Development Fund	60,000,000	These tokens are set aside to finance future platform development, hire additional team members, and make technical enhancements
Ecosystem	130,000,000	Tokens allocated towards fostering and growing the bitsCrunch network ecosystem through grants, rewards and marketing initiatives
Additional Airdrop Pool	5,000,000	Tokens reserved for future testnet phases
Network Bootstrapping Reward Pool	150,000,000	Token allocated to reward operators, delegators, contributors and indicators during the network bootstrapping

Table 2: Token supply classification

Token vesting is strategically designed to ensure that there is a controlled release of tokens over a specified period of time, which prevents a sudden influx of tokens into the market. This approach is beneficial in balancing the demand and supply of tokens, as it ensures that there is a steady flow of tokens over a prolonged period, rather than a large release in a short time frame. By doing so, token vesting promotes stability in the market and encourages a gradual increase in demand for the tokens as adoption grows.

	Months																					
	TGE Unlock	2	3	4	5	6	8	9	10	12	14	16	18	20	24	28	30	36	44	46	47	48
Seed Round	2.5%	Cliff				Vesting - 3% to 3.25% release every month until month 36																
Private Round 1	3.0%	Cliff				Vesting - 3.5% to 4% release every month until month 30																
Private Round 2	5.0%	Cliff				Vesting - 5% release every month until month 24																
Strategic Round	8% at TGE and 5.5% release every month until month 18																					
Community Round	20% at TGE and then Linear vesting until month 12																					
Team	Cliff									Vesting - 2.5% release every month												
Advisor	Cliff									Vesting - 2.5% release every month												
Airdrop Phase 1	Linear vesting until month 6																					
Network Bootstrapping Reward Pool	Linear vesting until month 48 - Network bootstrapping period: 4 Years																					
Additional Airdrop	Cliff					100%																
Listing and MM	100%																					
Security Buffer	8% at TGE and then linear vesting until month 24																					
Ecosystem	Linear vesting until month 48																					
Growth	Linear vesting until month 24																					
Additional Development Fund	Cliff					Linear vesting until month 24																

Figure 2: *Token vesting and release schedule*

Percentages mentioned above are all specific to the allocation within that category and not the percentage of the overall supply.

Below is a graph showing token circulation over the course of time. All tokens will be unlocked on the 48th month from TGE.

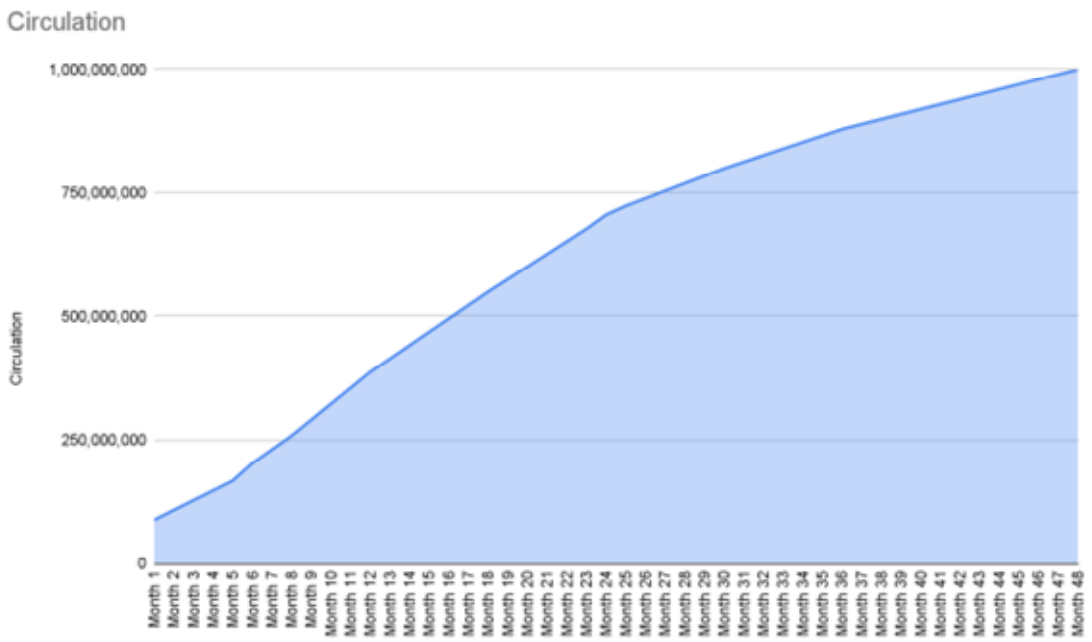


Figure 3: *Token circulation*

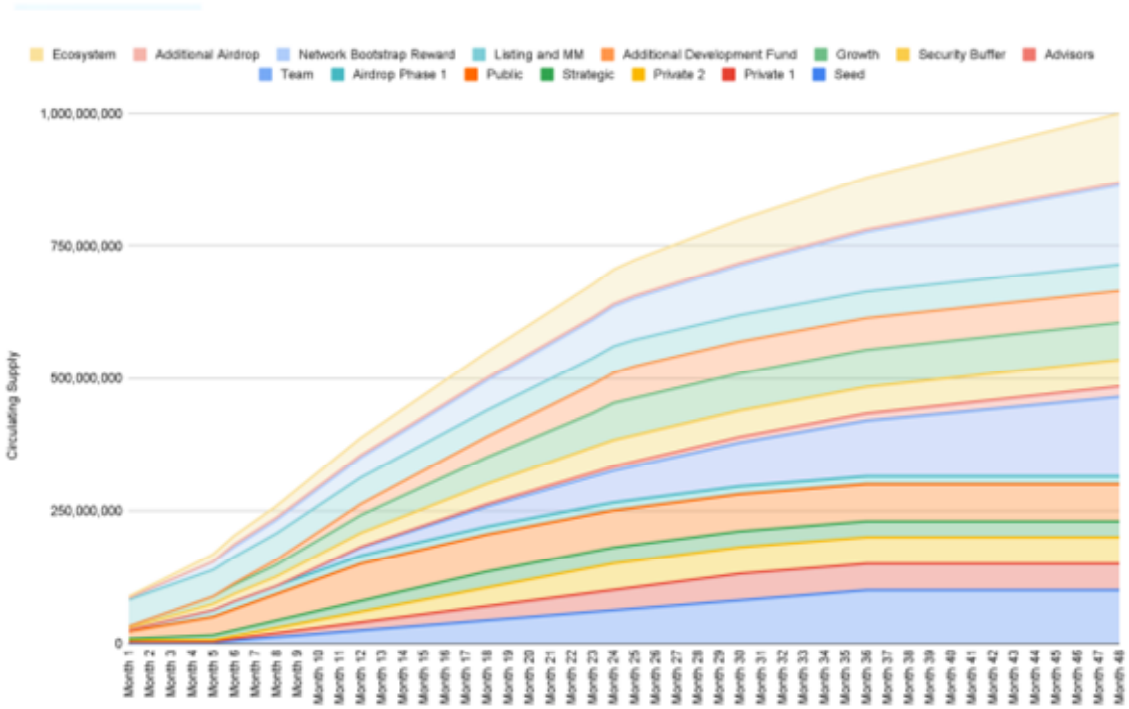


Figure 4: *Token emission by category*

Even though all 1 billion tokens unlock by month 48 it is highly unlikely that all tokens end up in the market.

Figure 5: *Token emission milestones*

Note

There is a discrepancy between the tokens scheduled to be in circulation and the actual circulation numbers reported on CoinGecko and CoinMarketCap. This discrepancy arises from the way these platforms track circulating supply. For example, tokens from the community sale were vested over 12 months, but all of these tokens have been allocated to CoinList for distribution. This all together is considered as circulating supply. Another challenge is that the token is multi-chain, which makes it difficult for these tools to track the circulating supply with precision.

Disclaimer

The tokenomics described in this White Paper reflect current intentions and are subject to change at the discretion of the project team. Token holdings involve a high degree of risk, including the potential loss of all amounts invested. Past performance, if any, is not indicative of future results, and there is no guarantee that any future version of the token will achieve comparable results or that the

token will yield any return on investment. A description of the various risks in relation with the BCUT token is provided in Part I of this White Paper.

G.16 Compensation Schemes

False.

G.17 Compensation Schemes Description

Not Applicable.

G.18 Applicable Law

Germany.

G.19 Competent Court

Landgericht München I or or, if found incompetent, any other competent Court under German law within the jurisdiction of the Munich region.

PART H – INFORMATION ON THE UNDERLYING TECHNOLOGY

H.1 Distributed ledger technology

The bitsCrunch token contract is deployed on the Ethereum network, benefits from top-tier security. Meanwhile, the bitsCrunch protocol operates on the Polygon chain, where BCUT token utilities reside. To engage in staking and delegating, Ethereum token holders must bridge their BCUT tokens to the Polygon chain.

Blockchain Name	Contract Address	Blockchain Explorer Link
Ethereum	0xBEF26Bd568e421D6708CCA55Ad6e35f8bfA0C406	https://etherscan.io/address/0xBEF26Bd568e421D6708CCA55Ad6e35f8bfA0C406
Polygon POS	0x3fb83A9A2c4408909c058b0BfE5B4823f54fAfE2	https://polygonscan.com/address/0x3fb83A9A2c4408909c058b0BfE5B4823f54fAfE2

H.2 Protocols and technical standards

1. BCUT Standard

The BCUT token is implemented in accordance with the ERC20 standard, a widely recognised protocol that ensures interoperability, fungibility, and secure token management within the Ethereum ecosystem. This standard delineates a defined set of functions and events, including balance management, transfer capabilities, and allowance mechanisms, which collectively facilitate seamless interactions between smart contracts and wallet applications. By adhering to the ERC20 framework, BCUT benefits from a proven, robust structure that enhances its operational reliability and supports a broad range of blockchain-based services.

2. Blockchains Used

BCUT tokens are available on both the Ethereum and Polygon blockchains, thereby leveraging the strengths of each network to optimise user experience and functionality.

- **Ethereum**: As the original platform for ERC20 tokens, Ethereum offers a mature, decentralised environment with extensive support for smart contracts. Its well-established infrastructure provides a secure foundation for token transactions and integrations with various crypto-asset services.
    - **For more information on Ethereum, please visit Ethereum.org.**
- **Polygon POS**: To complement Ethereum's capabilities and address issues such as network congestion and elevated transaction fees, BCUT is also deployed on Polygon. This secondary blockchain provides enhanced scalability, reduced latency, and lower operational costs, all

while maintaining compatibility with Ethereum's ecosystem. A bridging mechanism enables token holders to transfer BCUT seamlessly between Ethereum and Polygon, ensuring they can capitalise on the benefits of both platforms without compromising security or decentralization.

- **For more information on Polygon, please visit the Polygon website.**

3. **The bitsCrunch Network**

The bitsCrunch network leverages a Delegated Proof-of-Stake (dPoS) consensus mechanism. Within this system, delegators stake their digital assets with chosen operators, who are then tasked with various responsibilities within the network. The operators are rewarded based on the work they perform, aligning their interests with the overall integrity and functionality of the network. Additionally different consensus protocols will be used for different parts of the network to achieve a high reliability within the network and on the data query layer.

The technical standards of the bitsCrunch network, the native BCUT token network, is described in greater detail in the bitsCrunch Functional White Paper on our website (*link*).

H.3 Technology Used

Blockchain.

H.4 Consensus Mechanism

- The Ethereum network operates on a Proof-of-Stake (POS) consensus mechanism.
- The Polygon POS network operates on a POS consensus mechanism.
- The bitsCrunch network leverages a Delegated Proof-of-Stake (DPoS) consensus mechanism.

H.5 Incentive Mechanisms and Applicable Fees

1. **Ethereum Network**

Ethereum operates on a robust Proof-of-Stake consensus mechanism. Validators are required to stake ETH to secure the network and are duly rewarded through block incentives and transaction fees, which are determined by the gas pricing mechanism. Token holders may delegate their staked ETH to reputable validators, thereby partaking in the rewards and reinforcing overall network security. To ensure strict adherence to protocol standards, Ethereum incorporates punitive measures—such as slashing penalties—against validators who fail in their duties or engage in misconduct. This balanced system of positive incentives (rewards) and negative incentives (penalties) upholds the network's integrity, decentralisation, and operational stability.

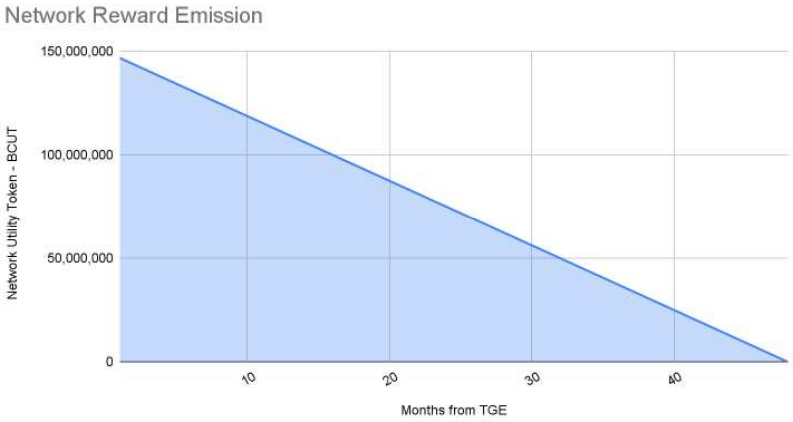
2. Polygon Network

Polygon, as a Layer 2 scaling solution for Ethereum, utilises a Proof-of-Stake consensus mechanism tailored to deliver enhanced throughput and significantly lower transaction fees. On Polygon, validators secure the network by staking tokens and are compensated via reduced transaction fees and block rewards. Delegators are encouraged to support the network by delegating tokens to these validators, thereby sharing in the ensuing rewards. Analogous to Ethereum, Polygon enforces a stringent penalty regime designed to deter non-compliant or malicious behaviour. The resultant framework, combining both incentives and sanctions, promotes cost-effective participation and ensures the sustained efficiency and security of the network, thereby facilitating broader adoption of decentralized applications.

3. Incentive mechanisms on the bitsCrunch network

All of the initial network rewards are provided from the staking allocation of the tokenomics, which can be referred to in the token economics section for more information. This allocation is also utilized to reward node operators, LP mining, among other things. The staking allocation will be utilized to cover network rewards for the bootstrapping duration, after which rewards will be primarily based on the revenue generated by the network and the rates will be determined by the network smart contract.

The following chart illustrates the planned token emission for bootstrapping the network over a period of up to 4 years. This emission schedule has been designed to ensure a steady and sustainable release of tokens into circulation, with the ultimate goal of supporting the growth and development of the network over the long term. After this initial bootstrapping period the network will go into a delayed inflationary model to help continually reward the network participants.



Network Settlement
The network settlement contract ensures that all operators and delegators in the network are duly compensated for their work. This is made up of one or more smart contracts that leverage the work log files stored in the decentralized storage. The network settlement process is entirely conducted using the utility token BCUT, ensuring seamless and secure transactions.

1. Delegators will stake BCUT token on operator(s) to secure the network and to earn a share of the query fee and rewards.

2. Network billing contract will draw down from the user deposit based on the query usage, a portion of it is kept in an expenses pool for paying blockchain gas fee and IPFS storage costs.

3. A portion of the drawdown is periodically swapped to BCUT and kept in the fee pool. The remaining portion is kept as stablecoin.

4. Network settlement contract will use node effort calculated using the aggregated data in the decentralized storage and the staking ratio. Most of the calculation will be externalized to not complicate the contract code and also keep the cost low.

5. Node operators will be able to claim BCUT from the settlement contract as per the reward and fee allocation calculated in step 3. Delegators will also be able to claim the tokens as per the fee and reward share setup by the operators.

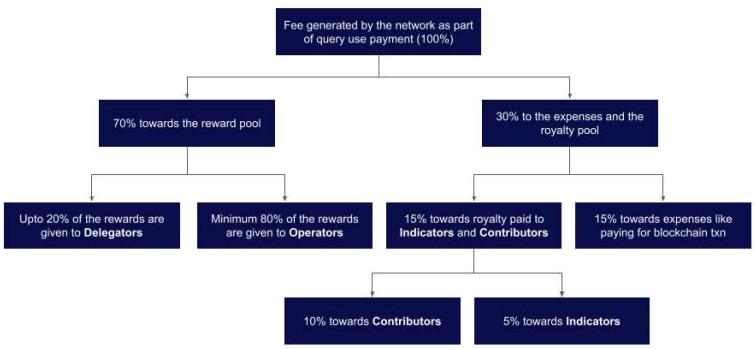
Network Reward Model

Query fees are collected by the billing smart contract and converted to BCUT before being deposited into the query fee pool. Operators receive their share of the tokens from this pool on a monthly basis, with the distribution determined by the Cobb-Douglas Production function. Rewards are calculated and shared daily.

Let's apply this function for fee sharing and rewards sharing among the network operators and delegators. Node staking is used in the request routing and for reward calculation.

Fee share

All fees generated from processing queries are converted to BCUT (the native token of the network) and collected in a common pool. On the settlement day, which occurs on a fixed day each month, a Cobb-Douglas algorithm is used to determine the distribution of BCUT rewards among node operators and delegators based on their contributions to the network. Both operators and delegators are eligible to claim their respective share of the reward from the pool. Staking ratio is not used in fee share calculation but instead is used as a factor for query queuing.



The above image depicts the distribution of the network-generated fees among operators, contributors, and indicators. Specifically, contributors are entitled to a 10% share of the network's revenue as a royalty for their curated content. This distribution is scheduled to commence from H2–2024 and will be contingent upon ongoing engagement and proportional to the volume and quality of work contributed. Furthermore, these royalties will be subdivided between content and code contributions, ensuring a fair and balanced reward system.

Rewards share

As previously stated in this chapter, a portion of the BCUT tokens is allocated for bootstrapping the network and rewarding its operators. At the close of each fixed epoch sets, reward shares are computed and made available for distribution to both operators and delegators. Both delegators and operators are eligible to claim their respective share of the rewards.

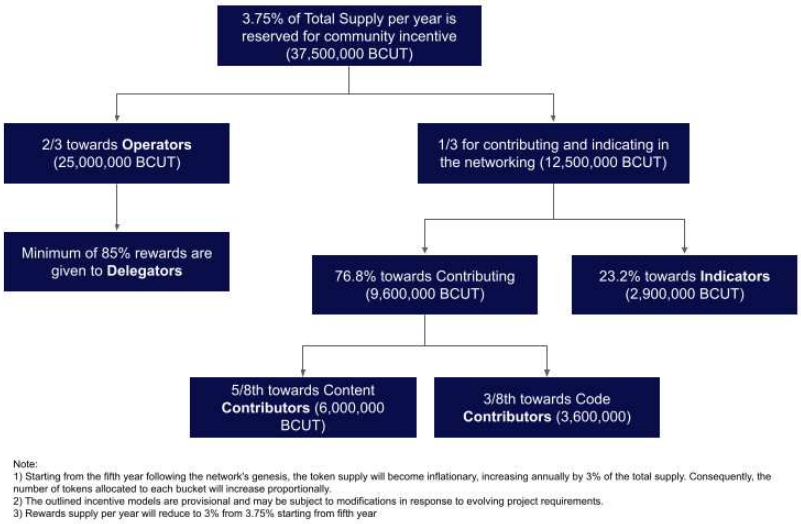


Figure 6: *Network rewards share*

The diagram provided offers a detailed visualization of the various reward pools designated for different roles within the network. Specifically, the allocation for content contribution is set at **5 million BCUT annually**, equating to **416K BCUT monthly**. This strategic allocation serves two key objectives:

1. It actively encourages sustained engagement within the network.

2. It aligns the interests of contributors with the long-term objectives and success of the network

H.6 Use of Distributed Ledger Technology

True.

H.7 DLT Functionality Description

See Part H.2.

H.8 Audit

All smart contracts deployed within the network undergo thorough audits conducted by independent security firms. These assessments aim to identify, analyze, and rectify any potential vulnerabilities or flaws, thereby ensuring the integrity and resilience of the smart contract code.

H.9 Audit outcome

I. Halborn Audit

BitsCrunch engaged Halborn to conduct a comprehensive security assessment of its smart contracts from 08-07-2024 to 08-21-2024. Halborn was given a two-week period for this engagement, with a dedicated full-time security engineer assigned to thoroughly evaluate the security of the smart contracts in scope. This engineer, an expert in blockchain and smart contract security, possesses advanced skills in penetration testing and smart contract hacking, along with extensive knowledge of various blockchain protocols.

The primary objectives of the assessment were to:

- Identify any potential security vulnerabilities within the smart contracts.
- Ensure that the functionality of the smart contracts operates as intended.

The audit findings confirmed the absence of any critical or high-level risks within the smart contracts, thus guaranteeing the security of the smart contract code. A single low-risk issue was identified regarding the use of an outdated compiler version, which does not impact the performance or security of the smart contracts. The informational elements of the audit, which offer minor suggestions for enhancement, present no risks to the security or functionality of the smart contracts. These suggestions have been either resolved or acknowledged, with the necessary modifications already incorporated into the smart contract code.

The complete audit report is publicly available for review at the following link: https://www.halborn.com/audits/bitscrunch/bitscrunch-protocol

II. CertiK Audit

The BUCT underwent a security audit conducted by CertiK, which was delivered on December 12, 2023. This audit was carried out as part of the bitsCrunch project, with the objective of detecting

potential vulnerabilities in the source code as well as in contract dependencies that are not part of officially recognized libraries.

The analysis combined static analysis techniques with an in-depth manual review of the code. This allowed for testing the smart contracts against both common and less common attack vectors, while ensuring that the code adheres to industry best practices and standards.

The experts conducted a line-by-line review of the entire code to ensure that the logic of the contracts matched the client's specifications and intentions. In addition, the structure and implementation of the contracts were compared to those of other similar contracts developed by industry leaders.

At the time of this White Paper's release, the company held a security score of over 90.

Figure 7: *BUCT security score at the time of the White Paper notification*

The complete audit report is publicly available for review at the following link: https://skynet.certik.com/projects/bitscrunch#code-security

PART I – INFORMATION ON RISKS

I.1 Offer-Related Risks

- **Regulatory Limitations:** The public offering of BCUT tokens is subject to varying regulatory regimes across different jurisdictions. In certain regions, local regulatory requirements may restrict or prohibit the acquisition and holding of BCUT tokens by potential investors, thereby limiting market participation and accessibility.

- **Market Access Risks:** BCUT tokens currently listed on various trading platforms may be subject to delisting due to evolving regulatory directives or strategic business decisions made by the platforms. Such actions could adversely affect the token's liquidity and, in turn, impair investors' ability to execute timely trades.

I.2 Issuer-Related Risks

- **Financial Risks:** CausisIntel Software GmbH, as the issuer of BCUT tokens, is exposed to financial uncertainties, including challenges associated with capital management, liquidity, and profitability. Unforeseen financial difficulties could impair the company's ability to sustain its operations and effectively support the ongoing development of the bitsCrunch network and the BCUT token ecosystem.

- **Business Continuity Risks:** The continuity of CausisIntel Software GmbH's business operations may be disrupted by a range of factors, including unfavourable market conditions, economic downturns, or significant shifts within the cryptocurrency and blockchain sectors. Such disruptions could adversely affect the company's long-term viability and its capacity to execute strategic initiatives.

- **Legal and Regulatory Risks:** Operating within the fast-evolving regulatory landscape governing digital assets, CausisIntel Software GmbH faces legal and regulatory risks. New or amended regulations, or non-compliance with existing legal obligations, may hinder the company's operational effectiveness and its ability to support the BCUT token offering. Potential regulatory actions could include penalties, fines, or other enforcement measures that may impede project development.

- **Third-Party Risks:** CausisIntel Software GmbH relies on various external partners, vendors, and service providers to deliver key components of its operations. Any disruption, failure, or non-compliance on the part of these third-party entities may adversely impact the company's ability to support the BCUT project, thereby affecting service delivery and operational reliability.

- **Operational Risks: t**he company is subject to operational risks stemming from unforeseen events such as technological failures, cyber-attacks, or other external disruptions. These incidents could compromise the effective functioning of CausisIntel Software GmbH and

obstruct its capacity to maintain continuous support for the BCUT token initiative, potentially leading to delays or interruptions in project execution.

I.3 Crypto-Assets-related Risks

- **Volatility Risk:** The BCUT token is inherently susceptible to significant price fluctuations, reflective of the volatile nature of crypto-asset markets and broader economic conditions. Price instability may be driven by global economic trends, evolving regulatory landscapes, speculative trading, and imbalances in supply and demand. Such volatility can expose token holders to substantial financial losses, particularly given the limited regulatory oversight and inconsistent liquidity typical of emerging digital asset markets.

- **Fraud and Scams Risk:** The decentralised and largely anonymous environment in which BCUT tokens operate makes them vulnerable to fraudulent schemes. Malefactors may employ phishing tactics—creating counterfeit websites, wallets, or communications—to deceive users into divulging sensitive information such as private keys or account credentials. Additionally, fraudulent promotions, including spurious airdrops or misleading investment opportunities, may be orchestrated to unlawfully acquire tokens or funds. Investors are therefore urged to exercise heightened vigilance and engage only with reputable platforms and verified sources.

- **Market Abuses Risk:** Like many cryptocurrencies, the BCUT token faces the risk of market manipulation. Practices such as pump-and-dump schemes, coordinated buying or selling, or other manipulative trading behaviours can artificially distort token prices, leading to erratic market movements that do not accurately reflect underlying value. Such market abuses can create a misleading trading environment, posing significant financial risks to both novice and experienced investors alike.

- **Tax and Legal Risk:** The regulatory and taxation frameworks applicable to crypto-assets are in a state of continual evolution and vary widely across jurisdictions. While initiatives such as MiCA aim to establish a more unified regulatory approach within the European Union, local legal interpretations and tax policies may still impose disparate requirements. Changes in legislation, tax obligations, or accounting practices may impact the legal status, exchangeability, and use of BCUT tokens. Consequently, token holders are advised to conduct comprehensive due diligence regarding the legal and tax implications in their respective jurisdictions, as non-compliance may result in significant legal and financial consequences.

I.4 Project Implementation-Related Risks

- **Development Delay Risk:** The successful rollout and ongoing enhancement of the bitsCrunch network and its BCUT token ecosystem are contingent upon the timely achievement of key development milestones. Unforeseen technical challenges, resource

constraints, or reliance on external dependencies could result in delays that impede the project's progress.

- **Risk of Technological Obsolescence and Innovation Gaps:** The blockchain and cryptocurrency sectors are marked by rapid technological advancements. Should bitsCrunch fail to adapt to emerging innovations in smart contract capabilities, scalability solutions, or security enhancements, the project may become technologically outdated. A failure to innovate in line with market demands or competitive developments may compromise the long-term viability of the ecosystem.

- **Interoperability Risk:** The utility of the BCUT token is intrinsically linked to its capacity for seamless integration with various blockchain networks and decentralised applications (dApps). However, technical incompatibilities or deficiencies in cross-chain support could limit its functionality, thereby curtailing its potential use cases within the broader DeFi and Web3 landscapes.

- **User Dependency Risk:** The bitsCrunch ecosystem relies heavily on the sustained engagement of users, traders, and developers to maintain liquidity and operational efficiency. A decline in participation—whether due to changing market trends, a loss of confidence, or the emergence of competing alternatives—could diminish network effects and adversely impact the long-term success of the project.

I.5 Technology-Related Risks

- **Cybersecurity Threats on Trading Platforms**: BCUT tokens, akin to other digital assets, are susceptible to cybersecurity risks on trading platforms where they are listed. These platforms may experience sophisticated cyber-attacks, operational disruptions, or sudden surges in activity, which could lead to unauthorized access, data breaches, or financial losses. While robust security protocols are implemented, it is not possible to completely eliminate these cybersecurity risks.

- **Network Stability Risks on Ethereum and Polygon**: The BCUT token is deployed on both the Ethereum and Polygon networks. Although these blockchains are well-established and widely used, they can encounter issues such as network congestion and performance degradation during periods of heightened transaction volume. Such conditions may result in slower transaction processing times or temporary outages, potentially impacting overall network stability and the timely execution of transactions.

- **Service Disruptions and Performance Risks**: Both Ethereum and Polygon are subject to occasional service disruptions due to technical upgrades, network congestion, or unforeseen technical issues. These disruptions may lead to delays in transaction finality, reduced liquidity, and overall performance challenges that could affect the seamless operation of the BCUT token ecosystem.

- **Smart Contract Vulnerabilities**: The operational framework of the BCUT token relies on smart contracts to facilitate transactions, staking, and governance functions. Despite thorough audits and ongoing security measures, these smart contracts may still harbour coding vulnerabilities or errors. Exploitation of such vulnerabilities by malicious actors could result in compromised functionality or the misappropriation of funds.

- **Irreversibility of Crypto-Asset Transactions**: Transactions involving BCUT tokens are inherently irreversible. Once a transaction is confirmed on the blockchain, it cannot be altered or undone. Consequently, any mistake, such as an erroneous recipient address or fraudulent activity, could lead to a permanent loss of funds. This irrevocability emphasises the importance of meticulous transaction management by all participants.

I.6 Mitigation measures

bitsCrunch has implemented a series of measures aimed at mitigating the various risks associated with the BCUT token and its ecosystem. These measures include:

- **Smart Contract Audits**: To minimise technological risks, bitsCrunch undertakes comprehensive audits of its smart contracts by engaging reputable third-party security experts. This rigorous process is designed to identify and address potential vulnerabilities before deployment, thereby enhancing the reliability and security of the token's underlying code.

- **Transparent Communication:** bitsCrunch is committed to ensuring that all information provided about BCUT is clear, accurate, and non-misleading. A dedicated blog and comprehensive documentation are maintained to detail the token's functionalities, use cases, and operational procedures. This approach is intended to keep token holders well-informed and to prevent any misunderstandings regarding the token's characteristics and its role within the ecosystem.

- **Open-Sourcing of Code**: In the interest of transparency and community trust, bitsCrunch has made the code underlying the BCUT token open source. This allows any interested party to review the deployed code, thereby facilitating independent verification of its security and performance. Additionally, bitsCrunch is committed to providing prompt responses to user inquiries and concerns via email and social media channels.

Notwithstanding the implementation of these mitigation measures, bitsCrunch does not guarantee that all risks can be completely eradicated. By holding BCUT tokens, token holders expressly acknowledge and consent to assume the inherent risks associated with the token, recognising that the measures in place serve only to mitigate, and not eliminate, these risks entirely.

PART J – INFORMATION ON THE SUSTAINABILITY INDICATORS IN RELATION TO ADVERSE IMPACT ON THE CLIMATE AND OTHER ENVIRONMENT-RELATED ADVERSE IMPACTS

***IMPORTANT**: THE FIGURES GIVEN IN THIS SECTION ARE ESTIMATES PRODUCED BY CAUSISINTEL SOFTWARE GMBH AND HAVE NOT BEEN VERIFIED BY THE SCIENTIFIC COMMUNITY OR SPECIALISED RESEARCH BODIES.*

In accordance with the MiCA Regulation, any entity offering crypto-assets within the European Union is required to assess and disclose the environmental footprint of their crypto-assets. This evaluation must be based on estimative methodologies and specific environmental indicators. The following section provides a comprehensive assessment of the environmental footprint of the BCUT token, detailing the associated energy consumption, carbon emissions, and other relevant metrics as applied to its underlying blockchain networks.

I. PRINCIPAL ADVERSE IMPACT

In accordance with the RTS of the ESMA (*link*), the environmental footprint of the BCUT token is assessed using three principal indicators:

(i) **Energy Needs**: This indicator represents the total amount of energy utilised for the validation of transactions and the maintenance of the integrity of the distributed ledger. It directly measures the computational effort required by the network.

(ii) **Carbon Emission**: Closely related to energy needs, this metric evaluates the proportion of energy consumption that is generated from renewable sources. It serves as a critical measure of the token's carbon footprint.

(iii) **Electronic Wastes**: This metric quantifies the generation of Waste Electrical and Electronic Equipment (WEEE) associated with the operation of validator nodes. It considers factors such as the production, operation, and eventual disposal of electronic hardware. While additional factors—such as water usage for cooling, resource extraction for hardware production, and other ancillary impacts—are recognised, they have not been incorporated into these estimates due to their negligible influence on the overall environmental footprint.

II. METHODOLOGY FOR CALCULATING THE ENVIRONMENTAL FOOTPRINT OF BCUT

For PoS tokens such as BCUT, the environmental footprint is determined using a hybrid calculation methodology that incorporates data from the underlying base layer. The key metrics and their corresponding calculation methods are outlined below:

Indicator	Metric Definition	Calculation Methodology
Energy Consumption	Total amount of energy used for the validation of transactions and the maintenance of the	Calculation is based on a measurement-based approach that considers the number of validator nodes and the volume of transactions. For

	integrity of the distributed ledger.	tokens, a hybrid allocation method from the respective base layer is applied.
Energy Intensity	Average amount of energy consumed per validated transaction.	Derived by dividing the total energy consumption by the number of validated transactions, utilising the hybrid allocation approach for tokens.
Carbon Emission	Share of the energy consumed that is generated from renewable sources for the validation of transactions and the maintenance of the distributed ledger.	Determined through an assessment of the geographic location of validator nodes, utilising region-specific data on renewable energy generation and carbon intensity metrics.
Electronic Wastes (WEEE)	Total amount of electronic waste generated in support of network operations, including the waste from validator nodes.	For PoS currencies, the calculation is based on the number of validator nodes, the representative hardware basket (including device type and net weight), and the estimated operating lifetime. For tokens, a hybrid allocation from the base layer is used.
WEEE Non-Recycled Ratio	Proportion of the total electronic waste (WEEE) generated that is not recycled.	Estimated by applying national or regional e-waste recycling rates to the total amount of WEEE generated.
Hazardous Waste Generation	Total amount of hazardous waste produced as a consequence of network operations.	Quantified according to industry standards for hazardous waste production associated with the electronic equipment used in network validation.

Table 2: *Key elements for assessing BCUT's environmental footprint*

Important: while these metrics offer a comprehensive overview of the PAI, the figures are estimative and subject to change with evolving network conditions.

III. KEY DATA FOR THE BCUT ENVIRONMENTAL FOOTPRINT

A. Key Data for the Polygon PoS Network

The BCUT token is issued on the Polygon POS network, which is recognised for its energy efficiency and low environmental impact. The following key metrics, derived from official Polygon data and supplementary sources such as Digiconomist and the CCRI report, provide insight into the network's environmental performance:

- **Annual Electricity Consumption:** 136,080.07 kWh
- **Electricity Consumption per Transaction:** 0.00594 Wh
- **Annual Carbon Footprint:** 44.89 tonnes CO_2e
- **Carbon Emission per Transaction:** 0.00178 g CO_2e
- **CO_2 Intensity:** 0.301 kg CO_2e
- **BCUT Transaction Volume (20 March 2024 – 20 March 2025):** 99,311 transactions

These metrics illustrate the Polygon network's capacity to validate transactions with minimal energy use and a very low carbon footprint per transaction, reinforcing its suitability as a sustainable platform for the BCUT token.

Sources:

- The Carbon Footprint of Polygon, Digiconomist, February 4, 2022 (https://digiconomist.net/the-carbon-footprint-of-polygon/)
- The Energy Efficiency and Carbon Footprint of the Polygon Blockchain, CCRI, October 2022
- Polygon Website (https://polygon.technology/blog/polygon-labs-launches-sustainability-dashboard-to-track-environmental-impact)

B. Key Data for the Ethereum Network

Following its recent transition to a Proof-of-Stake consensus mechanism (the Merge), the Ethereum network now exhibits dramatically reduced energy consumption and carbon emissions compared to its former Proof-of-Work configuration. The environmental metrics outlined below are estimative in nature and reflect data from multiple sources. These figures should be interpreted as approximate indicators of the network's environmental performance as it supports BCUT transactions.

- **Annual Carbon Footprint:**

  - Approximately 870 tCO_2e according to Ethereum's own metrics
  - Alternatively, around 1,498.95 tCO_2e as estimated by CCRI

- **Annualised Electricity Consumption:**
  - Approximately 0.0026 TWh as per Ethereum data
  - Alternatively, approximately 0.00482 TWh according to CCRI

- **Carbon Emission per Transaction:**
  - Estimated at 0.01 kg per transaction (Digiconomist)

- **Electricity Consumption per Transaction:**
  - Estimated at approximately 0.02 kWher transaction (Digiconomist)

- **BCUT Transaction Volume (from 03 January 2025 to 02 April 2025):** 41,288 transactions

These figures have been derived using methodologies that allocate the total network energy consumption and emissions across the estimated transaction volume. It is important to note that per-transaction estimates are inherently sensitive to how transaction throughput is defined.

Disclaimer:

Many articles estimate "per-transaction" energy expenditure for blockchains. This can be misleading because the energy required to propose and validate a block is independent of the number of transactions contained within it. A per-transaction unit of energy expenditure implies that fewer transactions would lead to lower energy consumption and vice versa, which is not the case. Additionally, per-transaction estimates are highly sensitive to the definition of transaction throughput, and modifications to this definition can significantly alter the perceived value.

Sources:

- Ethereum Energy Consumption Index – Digiconomist (https://digiconomist.net/ethereum)
- Cambridge Blockchain Network Sustainability Index (https://ccaf.io/cbnsi/ethereum)
- Ethereum Emissions: A Bottom-up Estimate (https://kylemcdonald.github.io/ethereum-emissions/)
- The Merge – Implications on the Electricity Consumption and Carbon Footprint of the Ethereum Network – CCRI (https://carbon-ratings.com/eth-report-2022)

IV. BCUT ENVIRONMENTAL FOOTPRINT

Based on the available data for the Polygon POS and Ethereum networks, the following estimates have been derived for the BCUT token's environmental impact. These calculations assume that all BCUT transactions incur the network's average per-transaction energy and carbon costs. The figures below represent annual estimates and per-transaction metrics for BCUT transactions on each network, as well as the aggregated (global) values.

A. Annual Transaction Volume

- **Polygon:** The reference period (20 March 2024 – 20 March 2025) already represents one year, with 99,311 BCUT transactions.
- **Ethereum:** The reference period (03 January 2025 – 02 April 2025) covers approximately three months. Annualising this volume (multiplying by 4) yields an estimated 165,152 BCUT transactions per year on Ethereum.
- **Global (Aggregated):** 99,311 (Polygon) + 165,152 (Ethereum) = **264,463 transactions per year.**

B. Annual Energy Consumption

- **Polygon:**
  - Energy per transaction: 0.00594 Wh
  - Annual consumption: 99,311 × 0.00594 Wh ≈ **590 Wh** (0.59 kWh)
- **Ethereum:**
  - Energy per transaction: 0.02 kWh
  - Annual consumption: 165,152 × 0.02 kWh ≈ **3,303.04 kWh**
- **Global (Aggregated):** 0.59 kWh + 3,303.04 kWh ≈ **3,303.63 kWh**

C. Energy Consumption per Transaction (Global Average)

- Global average = Total annual energy ÷ Total annual transactions
- 3,303.63 kWh ÷ 264,463 ≈ **0.01248 kWh** (or 12.48 Wh per transaction)

D. Annual Carbon Footprint

- **Polygon:** Annual carbon footprint is reported as **44.89 tonnes CO_2e**
- **Ethereum:** Annual carbon footprint is estimated at approximately **870 tonnes CO_2e**
- **Global (Aggregated):** 44.89 tonnes + 870 tonnes ≈ **914.89 tonnes CO_2e**

E. Carbon Footprint per Transaction

- **Polygon:** 44,890 kg CO_2e ÷ 99,311 ≈ **0.4515 kg CO_2e per transaction**
- **Ethereum:** 870,000 kg CO_2e ÷ 165,152 ≈ **5.27 kg CO_2e per transaction**
- **Global (Aggregated):** 914,890 kg CO_2e ÷ 264,463 ≈ **3.46 kg CO_2e per transaction**

F. Summary Table

Metric	Polygon	Ethereum (Annualised)	Global (Aggregated)
Annual Transaction Volume	99,311 transactions	165,152 transactions	264,463 transactions
Annual Energy Consumption	0.59 kWh	3,303.04 kWh	3,303.63 kWh
Energy Consumption per Transaction	0.00594 Wh	0.02 kWh	~0.01248 kWh (12.48 Wh)
Annual Carbon Footprint	44.89 tonnes CO_2e	870 tonnes CO_2e	914.89 tonnes CO_2e
Carbon Footprint per Transaction	~0.4515 kg CO_2e	~5.27 kg CO_2e	~3.46 kg CO_2e

Table 3: *Estimated environmental footprint of the BCUT token*

Disclaimer:
These estimates are based on available reference data and several assumptions regarding the energy consumption and carbon emissions per transaction on the Polygon and Ethereum networks. As the calculations rely on annualisation and estimative methodologies, the actual values may vary over time due to fluctuations in network activity, efficiency improvements, and evolving measurement techniques.

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