CRYPTO RISK METRICS
DON'T TRUST. VERIFY.

White paper drafted under the European Markets in Crypto-Assets Regulation (EU) 2023/1114 for FFG L7XQXLN44

Preamble

00. Table of Contents

01. Date of notification

2025-06-30

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 omissions 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

The token is holdable and transferable and can not be exchanged for any goods at the time of writing this white paper (2025-06-17). It has to be noted that it can be staked in order to participate in the Proof-of-Liquidity (PoL) consensus mechanism and that any transaction fees on the respective blockchain are paid within the crypto-asset at hand.

Thus, the crypto-asset has additional 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

Native Berachain tokens (BERA) this white paper refers to are crypto-assets other than EMTs and ARTs, which are available on the Berachain blockchain (2025-06-12 and according to DTI FFG shown in F.14).

The genesis block (see https://berascan.com/block/0, accessed 2025-06-12) was approved on 2025-01-20. It was the first recording of transactions for this ecosystem. 500,000,000 BERA tokens were released according to the distribution in D.9.

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

Since holding the crypto-asset does not grant access to any goods or services, this is not applicable at the time of writing this white paper (2025-06-12).

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

Crypto Risk Metrics GmbH is seeking admission to trading on any Crypto Asset Service Provider platform in the European Union 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. In accordance to Article 5(4), this crypto-asset white paper may be used by entities admitting the token to trading after Crypto Risk Metrics GmbH as the person responsible for drawing up such white paper has given its consent to its use in writing to the repective Crypto Asset Service Provider. If a CASP wishes to use this white paper, inquiries can be made under info@crypto-risk-metrics.com.

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

A.1 Name

Crypto Risk Metrics GmbH

A.2 Legal form

2HBR

A.3 Registered address

DE, Lange Reihe 73, 20099 Hamburg, Germany

A.4 Head office

Not applicable.

A.5 Registration date

2018-12-03

A.6 Legal entity identifier

39120077M9TG0O1FE242

A.7 Another identifier required pursuant to applicable national law

Crypto Risk Metrics GmbH is registered with the commercial register in the the city of Hamburg, Germany, under number HRB 154488.

A.8 Contact telephone number

+4915144974120

A.9 E-mail address

info@crypto-risk-metrics.com

A.10 Response time (Days)

030

A.11 Parent company

Not applicable.

A.12 Members of the management body

Name	Position	Address
Tim Zölitz	Chairman	Lange Reihe 73, 20099 Hamburg, Germany

A.13 Business activity

Crypto Risk Metrics GmbH is a technical service provider, who supports regulated entities in the fulfillment of their regulatory requirements. In this regard, Crypto Risk Metrics GmbH acts as a data-provider for ESG-data according to article 66 (5). Due to the regulations laid out in article 5 (4) of the REGULATION (EU) 2023/1114 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 May 2023 on markets in crypto-assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937, Crypto Risk Metrics GmbH aims at providing central services for crypto-asset white papers in order to minimize market confusion due to conflicting white papers for the same asset.

A.14 Parent company business activity

Not applicable.

A.15 Newly established

Crypto Risk Metrics GmbH has been etablished since 2018 and is therefore not newly established (i. e. older than three years).

A.16 Financial condition for the past three years

Crypto Risk Metrics GmbH's profit after tax for the last three financial years are as follows:

2024 (unaudited): negative 50.891,81 EUR

2023 (unaudited): negative 27.665,32 EUR

2022: 104.283,00 EUR.

As 2023 and 2024 were the years building software for the MiCAR-Regulation which was not yet in place, revenue streams from these investments are expeted to be generated in 2025.

A.17 Financial condition since registration

This point would only be applicable if the company were newly established and the financial conditions for the past three years had not been provided in the bulletpoint before.

Part B – Information about the issuer, if different from the offeror or person seeking admission to trading

B.1 Issuer different from offeror or person seeking admission to trading

Yes

B.2 Name

The Berachain project, an EVM-compatible Layer 1 blockchain (the project uses the term "EVM-identical", see https://docs.berachain.com/learn/, accessed 2025-06-16). It was co-founded by a team including “Smokey The Bera” in 2023 (despite the respective company being founded in 2021, according to https://www.crunchbase.com/organization/berachain, accessed 2025-06-17). The first mention of the chain Smokey was working on, was in January of 2023, in a podcast (see https://podcasts.apple.com/us/podcast/smokey-the-bera/id1653524688?i=1000593001901, accessed 2025-06-17). Smokey The Bera is a pseudonymous figure known for contributions to decentralized finance (DeFi) and NFT communities, with prior involvement in the Bong Bears NFT project. According to the project’s statement on its website, Berachain operates on a Proof-of-Liquidity (PoL) consensus mechanism and is governed by a decentralized autonomous organization (DAO) managing its tokens (https://www.berachain.com, accessed 2025-06-09). The crypto-assets native to Berachain are $BERA for gas, $BGT for governance, $HONEY, a stablecoin.

B.3 Legal form

Not applicable

B4. Registered address

According to Crunchbase, Berachain has an entity in George Town, Midland, Cayman Islands (https://www.crunchbase.com/organization/berachain, accessed 2025-06-17). This company could potentially be the issuer. It is uncertain, if this company has any relationship with the DAO. A closer specification could not be identified at the time of writing the white paper (2025-06-17).

B.5 Head office

According to individual Berachain job descriptions: "Our core engineering and founding team is based in Toronto, with offices in Dubai and Bangalore" - (https://careers.berachain.com/29948, accessed 2025-06-23). Closer specification was not possible at the time of writing this white paper (2025-06-23). This suggests that the founders and operators of the project are located in Toronto, Canada.

B.6 Registration date

According to Crunchbase, the company was founded in July 2021 (https://www.crunchbase.com/organization/berachain, accessed 2025-06-17).

B.7 Legal entity identifier

Could not be identified at the time of writing the white paper (2025-06-17).

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

Due to the nature of the DAO, the crypto-asset does not have a management body as defined in Article 3(1), point (27), of Regulation (EU) 2023/1114.

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: "Berachain BERA", Short Name: "BERA" according to the Digital Token Identifier Foundation (www.dtif.org, DTI see F.13, FFG DTI see F.14 as of 2025-04-24).

D.2 Crypto-assets name

See F.13.

D.3 Abbreviation

See F.13.

D.4 Crypto-asset project description

According to the "Honeypaper" (https://docs.berachain.com/learn/, accessed 2025-06-12), Berachain is intended to be a highly scalable and reliant EVM-Identical Layer 1 blockchain utilizing Proof-of-Liquidity (PoL) and built on top of the modular EVM-focused consensus client framework BeaconKit.

Berachain's execution layer is supposedly identical to the Ethereum Virtual Machine (EVM) runtime environment seen on Ethereum Mainnet. This means that it uses existing unmodified execution clients to handle executing smart contracts and supports all the tooling that comes native with the EVM.

Identical means that whenever the EVM is upgraded, Berachain can adopt the latest version as well. This includes compatibility with all RPC namespaces and endpoints, and any improvements made to execution clients could be applied immediately to Berachain.

The consensus mechanism of Proof-of-Liquidity (PoL) has the intention to change the way on-chain economics are structured, prioritizing users and applications over validator rewards at baseline. Network incentives are supposed to go towards enriching ecosystem liquidity, contributing to efficient trading, price stability, securing the chain, and increasing network/user growth.

PoL is designed with the intention to align the incentives of network participants (validators, protocols, users) and contributes to the overall long-term health of the chain.

Beyond providing utility, the native dApps, such as BEX, are supposed to serve as reference implementations of how developers can build on top of Proof-of-Liquidity.

BeaconKit:

BeaconKit is a modular framework developed by Berachain for building EVM consensus clients. It is intended to integrate the benefits of CometBFT consensus, including increased composability, single slot finality (SSF), and more.

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

Name	Role
Smokey The Bera	Co-founder; public representative; community leadership; articulates long-term vision (X profile: https://x.com/SmokeyTheBera, accessed 2025-06-12)
Man Bera	Co-founder; listed on multiple sources; also known as "Homme Bera" (see mentioned here, for example https://coinmarketcap.com/currencies/berachain/, 2025-06-12)
Dev Bear	Technical co-founder; contributes to development ((X profile: https://x.com/itsdevbear, accessed 2025-06-12) (https://cryptorank.io/price/berachain/team, accessed 2025-06-12). Dev Bear is the only founder whose real-world identity is suggested to be "Paul O'Leary" according to https://rocketreach.co/berachain-management_b728c8fbc43bfd3a (accessed 2025-06-12). This information could not be further verified.
Papa Bear	Early contributor; limited public presence (see for example here: https://crypto.news/berachain-lands-on-crypto-com-following-a-wave-of-major-exchange-listings/, accessed (2025-06-12).

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

Since the token has additional 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".

D.8 Plans for the token

The $BERA token, as the native gas and staking token of Berachain, does not have a standalone roadmap distinct from the Berachain project. Instead, $BERA's development, utility, and milestones are tightly integrated into Berachain's broader project roadmap.

The Berachain project has a roadmap, though it is not always detailed in a single, publicly accessible document. The roadmap is typically presented through official announcements, blog posts, and community updates, outlining milestones like testnet launches, mainnet deployment, token generation events (TGE), airdrops, and ecosystem expansion.

See, for example: https://news.berachain.com/ or https://blog.berachain.com/ (both accessed 2025-06-12).

In particular, since crypto assets are the native assets of blockchain, there is a risk that changes made could have a negative impact on investors.

D.9 Resource allocation

According to the official website of the project, the token allocation is as follows:

"Distribution and Allocation

The total genesis supply of 500 million $BERA is allocated across five categories:

Initial Core Contributors - 84,000,000 (16.8%)

Tokens are distributed to advisors and members of Big Bera Labs, the core contributors to the Berachain blockchain.

Investors - 171,500,000 (34.3%)

Tokens are distributed to Berachain's Seed, Series A (2023-04-20), and Series B (2024-04-12) investors (https://www.crunchbase.com/organization/berachain).

Community Allocations

Berachain's growth to date has been largely driven by an unparalleled community and a massive developer ecosystem leveraging Proof of Liquidity to power the next generation of applications. The community allocation (244,500,000 $BERA total, or 48.9% of supply) is broken down across three key areas:

Airdrop - 79,000,000 (15.8%)

15.8% of Berachain's token supply will be distributed through airdrops, recognizing various parties within the Berachain ecosystem, including testnet users, Berachain NFT holders, ecosystem NFT holders, social supporters, ecosystem dApps, community builders, and more. For more information on the airdrop breakdown, please visit the Blog.

Future Community Initiatives - 65,500,000 (13.1%)

13.1% of Berachain's token supply will be dedicated to applications, developers, and users through incentive programs, grants, and more, with input from the community itself via Snapshots, RFPs, etc.

Ecosystem & R&D - 100,000,000 (20%)

20% of Berachain's token supply will be used to support ecosystem development, R&D, growth initiatives, and the operations of the Berachain Foundation. This will largely focus on programs for developers and builders (see Boyco), node operator delegations, and evolutions of Proof-of-Liquidity and BeaconKit.

At launch, 9.5% of $BERA supply is unlocked from this bucket for ecosystem growth, developer tooling/infrastructure, liquidity provisioning, and more."

Note that this allocation can be subject to change at any time. Investors must understand that these plans are subject to change at any time and that there is no

guarantee that they will actually be implemented. This information cannot be independently verified or confirmed.

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

See D.9.

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) on any Crypto Asset Service Providers platform that has obtained the written consent of Crypto Risk Metrics GmbH as the person drafting this white paper.

E.2 Reasons for public offer or admission to trading

As already stated in A.13, Crypto Risk Metrics GmbH aims to provide central services to draw up crypto-asset white papers in accordance to COMMISSION IMPLEMENTING REGULATION (EU) 2024/2984. These services are offered in order to minimize market confusion due to conflicting white papers for the same asset drawn up from different Crypto Asset Service Providers. As of now, such a scenario seems highly likely as a Crypto Asset Service Provider who drew up a crypto-asset white paper and admitted the respective token in the Union has no incentive to give his written consent to another Crypto Asset Service Provider according to Article 5 (4 b) of the REGULATION (EU) 2023/1114 to use the white paper for his regulatory obligations, as this would 1. strenghthen the market-positioning of the other Crypto Asset Service Provider (who is most likely a competitor) and 2. also entail liability risks.

E.3 Fundraising target

Not applicable.

E.4 Minimum subscription goals

Not applicable.

E.5 Maximum subscription goals

Not applicable.

E.6 Oversubscription acceptance

Not applicable.

E.7 Oversubscription allocation

Not applicable.

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

500,000,000 tokens were generated in the initial mint. Tokens can be removed from the market through burn processes. New tokens are minted through the one-way conversion of Berachain Governance tokens which are minted for block rewards. According to CoinMarketetCap (https://coinmarketcap.com/currencies/berachain/, accessed 2025-06-20), the maximum amount of tokens is unlimited.

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.

E.16 Refund mechanism

Not applicable.

E.17 Refund timeline

Not applicable.

E.18 Offer phases

Not applicable.

E.19 Early purchase discount

Not applicable.

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

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.

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

The trading on all MiCAR-compliant trading platforms is sought.

E.34 Trading platforms Market identifier code (MIC)

Not applicable.

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. 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 adressing, 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

$BERA serves as the native gas and staking token of Berachain. However, due to the novelty of this ecosystem, the exact rights of token holders are subject to legal and technical 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.

F.3 Planned application of functionalities

All functionalities referred to in F.2 have already been applied. There were no statements made to further functionalities for the specific crypto-asset at hand (2025-06-10). The whitepaper ("Honeypaper", https://honeypaper.berachain.com/, accessed

2025-06-10) states no additional native functionality than outlined. It is subject to changes at any given time.

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 Berachain blockchain. The tokens are fungible (up to 18 digits after the decimal point), and the total supply at the time of writing amounts to 502,730,107 have already been issued (the supply can be traced on https://supply-api.berachain.com/api/stats/bera, accessed on 2025-06-27). The tokens are a digital representation of value.

F.7 Commercial name or trading name

See F.13.

F.8 Website of the issuer

https://berachain.com

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

2025-07-25

F.10 Publication date

2025-07-25

F.11 Any other services provided by the issuer

As the issuer of the token could not be determined due to the nature of a DAO 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

C75S6N2RJ

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

L7XQXLN44

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

Germany

F.19 Host Member States

Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, 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

The tokens are not intended to allow token holders to perform governance functions, another token is there for it. It is stated that the $BERA token enables its holders to engage in staking activity with the $BERA token as well as paying gas fees on the Berachain. The decentralized autonomous organization (DAO) can make decisions that adversely affect the investor.

G.2 Exercise of rights and obligations

See G.1.

G.3 Conditions for modifications of rights and obligations

The DAO can influence governance structures. Due to its novelty and dynamic nature, these structures are not fixed, which represents a risk of modification for investors.

G.4 Future public offers

Information on the future offers to the public of crypto-assets were not available at the time of writing this white paper (2025-06-12).

G.5 Issuer retained crypto-assets

According to the white paper, at the time of writing (2025-06-10, https://docs.berachain.com/learn/pol/tokens/tokenomics), the tokenomics are communicated as follows:

1. Initial Core Contributors – 84,000,000 $BERA (16.8%)

This portion is intended to recognize individuals affiliated with Big Bera Labs, including contributors and advisors who have been involved in the early development of the Berachain blockchain.

2. Investors – 171,500,000 $BERA (34.3%)

This category accounts for allocations to participants in prior fundraising rounds, including Seed, Series A, and Series B investors.

3. Community Allocations – 244,500,000 $BERA (48.9%)

This category reflects the intended share of the genesis supply set aside for various community-oriented initiatives. The breakdown below is illustrative and does not constitute a guarantee of eligibility or allocation.

3.1 Airdrop – 79,000,000 $BERA (15.8%)

A portion of tokens is planned to be distributed via airdrops to recognize participation across the Berachain ecosystem. This may include—but is not limited to—testnet participants, NFT holders, ecosystem contributors, dApps, and other community stakeholders. Details are expected to be shared via the official blog or similar communication channels.

3.2 Future Community Initiatives – 65,500,000 $BERA (13.1%)

This allocation is expected to support future incentive programs, grants, and similar initiatives. Community feedback mechanisms such as Snapshot voting or Requests for Proposals (RFPs) may inform the eventual use of these tokens.

3.3 Ecosystem & R&D – 100,000,000 $BERA (20%)

This allocation is designated for ecosystem-related development, technical research, and operations. Intended areas of focus include infrastructure support, developer initiatives (e.g., Boyco), node operator incentives, and potential enhancements to protocols like Proof-of-Liquidity and BeaconKit.

4. At launch, approximately 9.5% of the total $BERA supply is expected to be initially accessible from this category. These tokens may be directed toward ecosystem development, tooling, liquidity provisioning, and other foundational efforts.

The current token distribution can be traced on-chain (https://berascan.com/accounts)

Note: All figures and categories described above are based on current expectations and are not binding. Future allocations and unlock schedules may evolve based on strategic, technical, and community considerations. For the latest information, consult Berachain's official communication channels. The distribution may have an adverse effect on the investor at any time.

G.6 Utility token classification

No

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

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

According to the tokenomics page (https://docs.berachain.com/learn/pol/tokens/tokenomics, accessed 2025-06-10) inflation is estimated to be 10% annually (via BGT emissions), subject to governance. However, these $BGT (Bera Governance Token) emissions are relevant for the supply of

$BERA as the $BGT can be converted 1:1 into $BERA but not the other way around. Further, early investors are subject to a vesting scheme: all parties supposedly follow an identical vesting schedule:

Initial Unlock: 12 months cliff, 1/6th of allocated tokens are unlocked.

Linear Vesting: The remaining tokens vest linearly over the subsequent 24 months from the genesis block.

The planned and future supply adjustment protocols can negatively impact the investors.

G.13 Supply adjustment mechanisms

The rewards for successfully creating blocks in the "Proof-of-Liquidity" consensus mechanism are not denoted in $BERA however, but in $BGT which can be, as described in G.12, be converted to $BERA 1:1.

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 (DTL)

The $BERA tokens are native assets created within Berachain's core protocol, leveraging the Cosmos SDK's bank and staking modules. $BERA is not a separate smart contract but a protocol-level token used for gas fees, staking, and network security. The token's state is managed by Berachain's state machine, inteded to integrate seamlessly with the ecosystem. The source code for these modules, written in Go—a common language for blockchain systems - is available in Berachain's public repositories Berachain GitHub. (https://github.com/berachain, accessed 2025-06-09)

The token's functionality is governed by Berachain's Cosmos SDK modules, specifically the bank module for transfers and balances, and the staking module for validator operations. The source code for Berachain's token-related modules is available in its public repositories (https://github.com/berachain, accessed 2025-06-09), developed in Go, a language chosen for assumed robustness and scalability in blockchain systems.

Core functions of the token framework include:

Mint: Creates new $BERA tokens, typically for rewards (controlled by governance or validators).

transfer: Transfers $BERA between accounts.

Burn: Removes $BERA from circulation, reducing total supply.

Delegate: Stakes $BERA to validators for network security.

SetParams: Updates token-related parameters via governance.

These functions have the intention to enable essential operations like payments, staking, and governance within Berachain's ecosystem.

H.2 Protocols and technical standards

The $BERA token operates on a set of protocols and technical standards intended to ensure security, decentralization, and functionality within Berachain's ecosystem. Key standards include:

Network Protocols:

Berachain follows a decentralized peer-to-peer (P2P) protocol, with nodes communicating via CometBFT's consensus engine, adapted from Tendermint.

Transactions and EVM-compatible smart contracts are intended to be secured through Proof-of-Liquidity (PoL) consensus.

Validators propose and finalize blocks using CometBFT's Byzantine Fault Tolerant (BFT) mechanism.

The Ethereum Virtual Machine (EVM) executes smart contracts with Turing-complete bytecode, ensuring compatibility with Ethereum tooling.

Transaction and Address Standards:

Address Format: 20-byte addresses derived from Keccak-256 hashing of public keys, identical to Ethereum's EVM standard.

Transaction Types:

Legacy transactions (pre-EIP-1559, supported for compatibility).

EIP-1559 transactions with dynamic fees, including a base fee (burned) and priority fee (paid to validators).

Berachain supports EVM upgrades, potentially including EIP-7702 for account abstraction, allowing externally owned accounts (EOAs) to temporarily act as smart contract wallets for gas sponsorship or batching.

Blockchain Data Structure & Block Standards:

Berachain's blockchain maintains accounts, smart contracts, and storage states using Merkle Patricia Trees for efficient state verification.

Each block includes:

Block Header: Parent hash, state root, transactions root, receipts root, timestamp, gas limit, gas used, validator signature.

Transactions: Smart contract executions and $BERA transfers.

Block Size: Constrained by gas limits, adjustable via governance to balance scalability and performance.

Berachain's PoL incentivizes liquidity, potentially supporting data availability enhancements akin to Ethereum's EIP-4844 blobs for rollup scalability.

Upgrade & Improvement Standards:

Berachain follows a governance-driven process for protocol upgrades, with proposals submitted and voted on by Berachain governance token ($BGT) holders via the DAO Berachain Governance Docs (see https://docs.berachain.com/learn/governance/, accessed 2025-06-09).

H.3 Technology used

1. Ledger: Berachain's blockchain is intended to act as a decentralized ledger for $BERA transactions, with the intention of preserving an immutable record of transfers and ownership to promote transparency and security.

2. Berachain-Compatible Wallets: $BERA tokens are supported by wallets compatible with Berachain's EVM and Cosmos SDK, such as MetaMask, Keplr, and Rabby, configured with Berachain's chain ID and RPC endpoints.

3. Native Token Framework: The Cosmos SDK's bank and staking modules manage $BERA as a native asset, distinct from token standards like ERC-20 or SPL. This unified approach is intended to ensure consistency and efficiency across the ecosystem.

4. Blockchain Scalability: Berachain's PoL and CometBFT consensus are designed to process high transaction volumes with low $BERA fees, maintaining performance during peak usage.

Security Protocols for Asset Custody and Transactions:

1. Private Key Management: Users are responsible for securely storing wallet private keys or recovery phrases to safeguard $BERA holdings.

2. Cryptographic Integrity: Berachain employs ECDSA with the secp256k1 curve for key generation and digital signatures, alongside Keccak-256 hashing for address creation, intended to ensure secure transaction validation. BLS signatures may be used for validator aggregation in PoL consensus.

H.4 Consensus mechanism

Berachain employs a Proof-of-Liquidity (PoL) consensus mechanism, built on the CometBFT (Tendermint) engine, adapted from the Cosmos SDK. PoL incentivizes liquidity provision with the intention to secure the network and to bootstrap DeFi protocols. The mechanism operates as follows:

Core Concepts:

Proof-of-Liquidity (PoL):

Liquidity Incentives: Validators and users stake $BERA and provide liquidity to earn rewards, aligning security with ecosystem growth.

Dynamic Validation: Validators are selected based on staked $BERA and liquidity contributions, ensuring economic alignment.

CometBFT Consensus:

Byzantine Fault Tolerance: Has the intention to ensure consensus among validators, tolerating up to one-third malicious nodes.

Block Proposals: Validators propose and vote on blocks, finalizing them with two-thirds agreement.

Consensus Process:

Transaction Validation: Transactions are broadcast, validated for signatures and funds, and included in a mempool.

Block Proposal: A validator, chosen by stake weight, proposes a block containing $BERA transactions, ordered by gas fees.

Voting and Finalization: Validators vote on the block using CometBFT's pre-vote and pre-commit phases. Once two-thirds agree, the block is finalized and added to the chain.

Reward Distribution: Validators and delegators earn $BERA rewards for trying to secure the network, proportional to their stake and liquidity contributions.

Security and Economic Incentives:

Incentives for Validators:

Block Rewards: Validators receive $BERA for proposing and finalizing blocks.

Transaction Fees: Validators earn fees paid in $BERA for processing transactions.

Security:

Staking: Validators stake $BERA as collateral, risking penalties for malicious behavior.

Delegated Staking: Users delegate $BERA to validators, with the intention to enhance network security and earning shared rewards.

Economic Penalties:

Slashing: Validators face $BERA penalties for downtime or double-signing, deterring dishonesty Berachain PoL Docs.

The novelty of the consensus model creates additional risks for investors.Due to the novelty and short track record, there are risks for the investor that errors (technical or otherwise) may occur that negatively affect the investor.

H.5 Incentive mechanisms and applicable fees

Proof-of-Liquidity Validators:

Staking Rewards: Validators are selected based on staked $BERA and liquidity contributions, earning rewards intended to compensate for securing the network.

Transaction Fees: Validators collect $BERA fees from transactions, designed to incentivize efficient processing.

Delegators:

Delegated Staking: $BERA holders delegate to validators, sharing rewards to encourage network participation and decentralization.

Economic Security:

Slashing: Penalties for validator misbehavior reduce staked $BERA, intended to deter dishonesty.

Opportunity Cost: Staked $BERA is locked, encouraging long-term commitment to earn rewards.

Fees Applicable on Berachain:

Transaction Fees:

Berachain's high throughput is intended to maintain low and predictable $BERA fees.

Fees, paid in $BERA, compensate validators for computational and bandwidth resources, with burning base fees to reduce supply similar to EIP-1559.

Storage Fees:

Fees for state storage are designed to optimize chain efficiency and discourage excessive data usage.

Smart Contract Fees:

EVM smart contract execution fees, based on gas consumption, are intended to ensure proportional resource costs.

See:

https://docs.berachain.com/developers/gas-and-fees/ (accessed 2025-06-09).

The novelty of the consensus model creates additional risks for investors. Due to the novelty and short track record, there are risks for the investor that errors (technical or otherwise) may occur that negatively affect the investor.

H.6 Use of distributed ledger technology

No, DLT is not operated by the issuer or a third party acting on the issuer's behalf.

H.7 DLT functionality description

Not applicable.

H.8 Audit

As we are understanding the question relating to "technology" to be interpreted in a broad sense, the answer answer to whether an audit of "the technology used" was conducted is "no, we can not guarantee, that all parts of the technology used have been audited". This is due to the fact this report focusses on risk, and we can not guarantee that each part of the technology used was audited.

H.9 Audit outcome

Not applicable.

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 blockchain the crypto-asset is issued upon (as of 2025-06-23). 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 accessibly 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 hold 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 hold 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 pseudonoymous, 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 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 crypot-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 Berachain'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 Berachain network.

1. Blockchain Dependency Risks

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

Scalability Challenges: Despite Berachain's 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 EVM-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 Berachain blockchain 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, Berachain's relatively smaller number of validators/concentration of stakes within the network compared to other blockchains.

5. Evolving Technology Risks: Technological Obsolescence: The fast pace of innovation in blockchain technology may make Berachain or the ERC-20 token standard appear less competitive or become outdated, potentially impacting the usability or adoption of the token.

I.6 Mitigation measures

None.

Part J – Information on the sustainability indicators in relation to adverse impact on the climate and other environment-related adverse impacts

J.1 Adverse impacts on climate and other environment-related adverse impacts

S.1 Name

Crypto Risk Metrics GmbH

S.2 Relevant legal entity identifier

39120077M9TG0O1FE242

S.3 Name of the cryptoasset

Berachain BERA

S.4 Consensus Mechanism

Berachain employs a Proof-of-Liquidity (PoL) consensus mechanism, built on the CometBFT (Tendermint) engine, adapted from the Cosmos SDK. PoL incentivizes liquidity provision with the intention to secure the network and to bootstrap DeFi protocols. The mechanism operates as follows:

Core Concepts:

Proof-of-Liquidity (PoL):

Liquidity Incentives: Validators and users stake $BERA and provide liquidity to earn rewards, aligning security with ecosystem growth.

Dynamic Validation: Validators are selected based on staked $BERA and liquidity contributions, ensuring economic alignment.

CometBFT Consensus:

Byzantine Fault Tolerance: Has the intention to ensure consensus among validators, tolerating up to one-third malicious nodes.

Block Proposals: Validators propose and vote on blocks, finalizing them with two-thirds agreement.

Consensus Process:

Transaction Validation: Transactions are broadcast, validated for signatures and funds, and included in a mempool.

Block Proposal: A validator, chosen by stake weight, proposes a block containing $BERA transactions, ordered by gas fees.

Voting and Finalization: Validators vote on the block using CometBFT's pre-vote and pre-commit phases. Once two-thirds agree, the block is finalized and added to the chain.

Reward Distribution: Validators and delegators earn $BERA rewards for trying to secure the network, proportional to their stake and liquidity contributions.

Security and Economic Incentives:

Incentives for Validators:

Block Rewards: Validators receive $BERA for proposing and finalizing blocks.

Transaction Fees: Validators earn fees paid in $BERA for processing transactions.

Security:

Staking: Validators stake $BERA as collateral, risking penalties for malicious behavior.

Delegated Staking: Users delegate $BERA to validators, with the intention to enhance network security and earning shared rewards.

Economic Penalties:

Slashing: Validators face $BERA penalties for downtime or double-signing, deterring dishonesty Berachain PoL Docs.

The novelty of the consensus model creates additional risks for investors. Due to the novelty and short track record, there are risks for the investor that errors (technical or otherwise) may occur that negatively affect the investor.

S.5 Incentive Mechanisms and Applicable Fees

Proof-of-Liquidity Validators:

Staking Rewards: Validators are selected based on staked $BERA and liquidity contributions, earning rewards intended to compensate for securing the network.

Transaction Fees: Validators collect $BERA fees from transactions, designed to incentivize efficient processing.

Delegators:

Delegated Staking: $BERA holders delegate to validators, sharing rewards to encourage network participation and decentralization.

Economic Security:

Slashing: Penalties for validator misbehavior reduce staked $BERA, intended to deter dishonesty.

Opportunity Cost: Staked $BERA is locked, encouraging long-term commitment to earn rewards.

Fees Applicable on Berachain:

Transaction Fees:

Berachain's high throughput is intended to maintain low and predictable $BERA fees.

Fees, paid in $BERA, compensate validators for computational and bandwidth resources, with burning base fees to reduce supply similar to EIP-1559.

Storage Fees:

Fees for state storage are designed to optimize chain efficiency and discourage excessive data usage.

Smart Contract Fees:

EVM smart contract execution fees, based on gas consumption, are intended to ensure proportional resource costs.

See:

https://docs.berachain.com/developers/gas-and-fees/ (accessed 2025-06-09).

The novelty of the consensus model creates additional risks for investors. Due to the novelty and short track record, there are risks for the investor that errors (technical or otherwise) may occur that negatively affect the investor.

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

2024-06-28

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

2025-06-28

S.8 Energy consumption

244404.00000 kWh/a

S.9 Energy consumption sources and methodologies

For the calculation of energy consumptions, the so called 'bottom-up' approach is being used. The nodes are considered to be the central factor for the energy consumption of the network. These assumptions are made on the basis of empirical findings through the use of public information sites, open-source crawlers and crawlers developed in-house. The main determinants for estimating the hardware used within the network are the requirements for operating the client software. The energy consumption of the hardware devices was measured in certified test laboratories. When calculating the energy consumption, we used - if available - the Functionally Fungible Group Digital Token Identifier (FFG DTI) to determine all implementations of the asset of question in scope and we update the mappings regulary, 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

26.5386870830 %

S.11 Energy intensity

0.00003 kWh

S.12 Scope 1 DLT GHG emissions – Controlled

0.00000 tCO2e/a

S.13 Scope 2 DLT GHG emissions – Purchased

81.34085 tCO2e/a

S.14 GHG intensity

0.00001 kgCO2e

S.15 Key energy sources and methodologies

To determine the proportion of renewable energy usage, the locations of the nodes are 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 Licenced under CC BY 4.0

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