



PolkaBridge Whitepaper

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By PolkaBridge

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1. Problem statement

Decentralized Finance (Defi) is a rapidly growing sector of the blockchain ecosystem and brings a lot of benefits to users in the market. Currently, decentralized applications (dApps) are mostly still deployed on Ethereum.

Polkadot is a blockchain protocol with a strong development team, and has many advantages over Ethereum in terms of processing speed and scalability.

How can a user work on the Ethereum blockchain and interact with the Polkadot network in a single dApp?

This is what PolkaBrige was born for.

PolkaBridge is a decentralized application platform. One of PolkaBridge's most important products is PolkaBridge DEX - a decentralized exchange that allows users to swap tokens on Polkadot to tokens on other blockchains without the need for any centralized organization. In addition, by using the smart farming mechanism, liquidity providers can earn high-yield rewards.

2. Products

2.1. PolkaBridge DEX

2.1.1. Cross-chain swap

PolkaBridge provides swap functionality from Polkadot to other blockchains, such as Ethereum and Binance Smart Chain, without the need for intermediaries.

PolkaBridge uses Moonbeam's parachain solution, allowing Ethereum compatible smart contracts to run on Polkadot. In practice, PolkaBridge will use two smart contracts running in parallel to swap: one on Polkadot, the other on the corresponding blockchain.

Below is an example for swapping from ETH (on Ethereum) to DOT (on Polkadot):

- On the PolkaBridge UI, users will find one pool called 'ETH-DOT pool'. This pool includes two pools: one containing ETH on ERC20, and the other containing DOT. Users will swap tokens through the liquidity of these pools. Liquidity providers will be able to claim rewards when users swap: provide more liquidity, get more rewards. See how to calculate rewards in the Farming section.
- The user's ETH will be transferred to the ETH portion of ETH-DOT pool. Here, data on the existing tokens in the pool will be used to calculate the conversion rate to DOT. After calculating the amount of DOT, the Moonbeam smart contract will return it to the user's wallet. The swap process is completed.
- Users will be allowed to choose a slippage rate from the dApp UI for the swap. The higher the slippage, the higher the risk.

Assume that the current ETH price is \$1000, and the DOT price is \$10. In the pool there will be ETH and DOT at the ratio of 1 ETH : 100 DOT. In this example, the pool would have 100 ETH and 10,000 DOT. When the user wants to swap x ETH to DOT, the number of DOT received will be calculated according to the following formula:

$$LP\ DOT = \frac{LP\ ETH \cdot LP\ DOT}{x + LP\ ETH}$$

In this case, this user would receive 99.00990099 DOT for every 1 ETH, where the slippage is 2.01%.

2.1.2. Deflationary Farming

Liquidity providers will be able to earn rewards, even while they're sleeping. All rewards will be paid in the PBR token.

All transactions that move PBR attract a small fee worth 0.5% of the total amount. This fee will go into two pools:

- 90% shared for all farmers.
- 10% burned directly.

For example, suppose that PBR's current price is \$0.10 and there are 10 pools on PolkaBridge. When a user swaps 1,000 USDT to PBR (on any exchange or DEX), in theory that user should receive about 10,000 PBR (slippage not included). But because of the deflation mechanism, the user would only get about 9,950 PBR. The remaining 50 PBR would be divided into two parts: 5 PBR would be put in the burning pool, and the other 45 PBR would be shared among the 10 farming pools based on the amount of liquidity in each one. This way farmers can earn their own rewards without minting any PBR tokens.

With this mechanism the supply of PBR tokens will decrease over time, making a positive impact on the price of PBR.

The reward is calculated with the following formula:

$$numbershare * \frac{fees/trans}{total\ pool}$$

For another example, suppose that the system has an existing DOT-USDT pool with a current LP of 10,000 USDT and 1,000 DOT. Suppose a user has 2,000 USDT and wants to join in farming: the user would need to add 1,000 USDT and 100 DOT (bought with 1,000 USDT at the price of \$10 per DOT, not including slippage) to the pool. At this point, this user's LP DOT-USDT share in the pool is $100 / (1,000 + 100) = 9.091\%$. As such, when 1,000 PBR is added to the pool as for rewards, this user would earn 90.91 claimable PBR.

2.2. PolkaBridge Lending

Coming soon.

2.3. PolkaBridge Launchpad

Coming soon.

3. PBR token

PBR is the native token of the PolkaBridge ecosystem. The main features of the PBR tokens are:

- 1. Rewards for farming:** Like other Defi platforms, there will be many pools for farming. Liquidity providers will earn an amount of PBR that corresponds to the total amount of liquidity that they added.
- 2. Governance:** PBR holders have the right to vote to change parameters, features and developmental roadmaps of the PolkaBridge ecosystem in the future.
- 3. Lending fee:** Using PBR for fees to borrow on PolkaBridge Lending, the user will receive a 50% discount, and the remaining 50% will be burned to support the deflationary token mechanism.
- 4. Launchpad:** To participate in future projects on PolkaBridge Launchpad, a user must lock a certain amount of PBR to farm lottery tickets.

Additionally, PBR will play an important role in the development and expansion of the PolkaBridge ecosystem in the future. Marketing strategies, bounties, listing exchanges and more will all use PBR as rewards and for fees.

4. Security

Defi is becoming more popular and offers great opportunities for cryptocurrency investors. The total value locked (TVL) in Defi has reached more than \$10 billion in 2020. However, as a result of the rapidly evolving and innovating nature of Defi, vulnerabilities have been exposed and exploited by hackers. Sadly, in many cases, when this occurs, the end user is the one that suffers when funds disappear.

There are several solutions that PolkaBridge will implement to maximize its security:

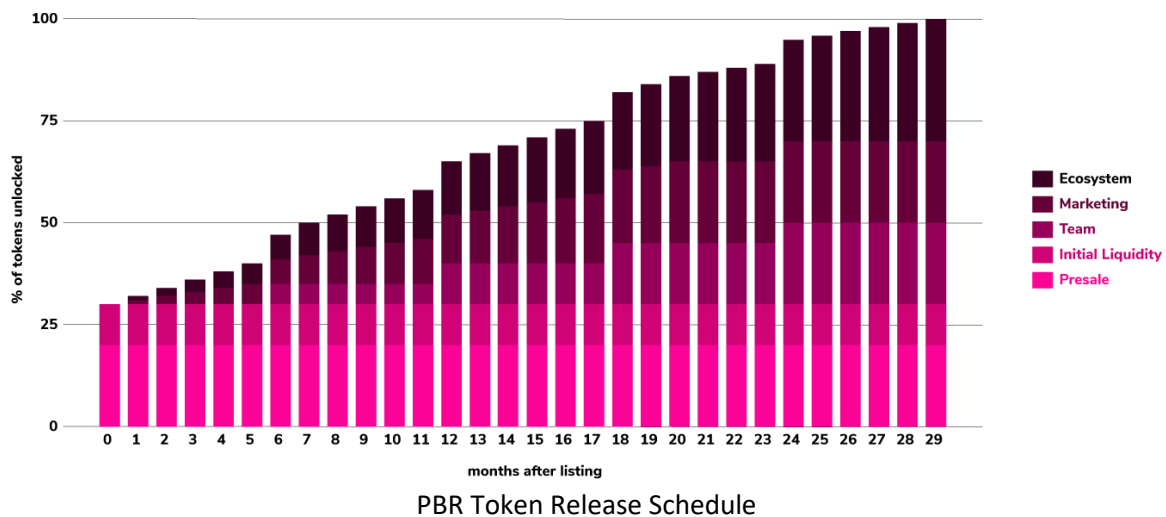
- Smart contract audit: All PolkaBridge's smart contracts, before running on Mainnet, will be fully audited by a reputable third party such as Quantstamp, CertiK or Consensys.
- The system will monitor transactions on the dApp to detect unusual transactions, such as large volume transactions, high frequency transactions in a short time frame and the actions of malicious whales.
- Immediately pause the contract system in the case of something going wrong.
- A reserve fund for compensation if any loss occurs.

5. Tokenomics

Total PBR supply will be 100,000,000 (100M) PBR. The token allocation details are as follows:

- 1. Presale:** 20% (20M). Presale tokens will be unlocked right after listing on Uniswap. Tokens that aren't not sold in the presale will be burned. Details of the presale will be announced on PolkaBridge's media channels soon.
- 2. Initial Uniswap liquidity:** 10% (10M). After the presale, PBR will be listed on Uniswap for trading. It's expected to add 60% amount of ETH from presale.
- 3. Ecosystem:** 30% (30M). This fund is used to develop the PolkaBridge ecosystems, including future developments and legal issues. The 30M tokens in the Ecosystem fund will be unlocked at a rate of 1M tokens per month from TGE. Therefore, it will take 30 months for the Ecosystem unlock to be completed.
- 4. Marketing, Airdrops, Bounty:** 20% (20M). This fund will be used to implement marketing campaigns, advertising and bounties, for the purpose of developing the community, products and ecosystem of PolkaBridge. 1M tokens will be released every month from TGE.
- 5. Team & Foundation:** 20% (20M). This fund will be shared between the founders and developers of PolkaBridge. All of them will be locked for 2 years, with tokens releasing at a rate of 5M tokens every 6 months from TGE.

All the token locks and unlocks will be done automatically by the PolkaBridge smart contract on the Ethereum platform, and no one will be able to intervene and change it at any stage.



6. Roadmap

1. Q3, 2020:

- Research on Defi & cross-chain solutions
- Research on Polkadot Ecosystem

2. Q4, 2020:

- Team forming & project brainstorming
- Design Tokenomics for PolkaBridge token (PBR)

3. Q1, 2021:

- Develop smart contract and website
- Complete Whitepaper
- PBR token IDO
- Listing PBR on Uniswap
- Listing on PolkaProject
- Farming
- Listing on tier-2 CEXs

4. Q2, 2021:

- Launchpad
- Migrating PBR to Polkadot Parachains Testnet

5. Q3, 2021:

- Multichain DEX (Ethereum, Binance Smart Chain)

6. Q4, 2021:

- Migrating PBR to Polkadot Parachains Mainnet - Integrating Polkadot Parachains to Multichain DEX

7. Q1, 2022:

- Crosschain DEX

8. Q2, 2022:

- Lending
- Prediction
- And more soon...

7. Disclaimers

The purpose of this whitepaper is to present the **PolkaBridge** cryptocurrency. The information set forth herein may not be exhaustive and does not imply any elements of a contractual relationship. Its sole purpose is to provide relevant, reasonable information to potential investors and participants for them to determine whether to undertake a more thorough analysis of the offering.

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