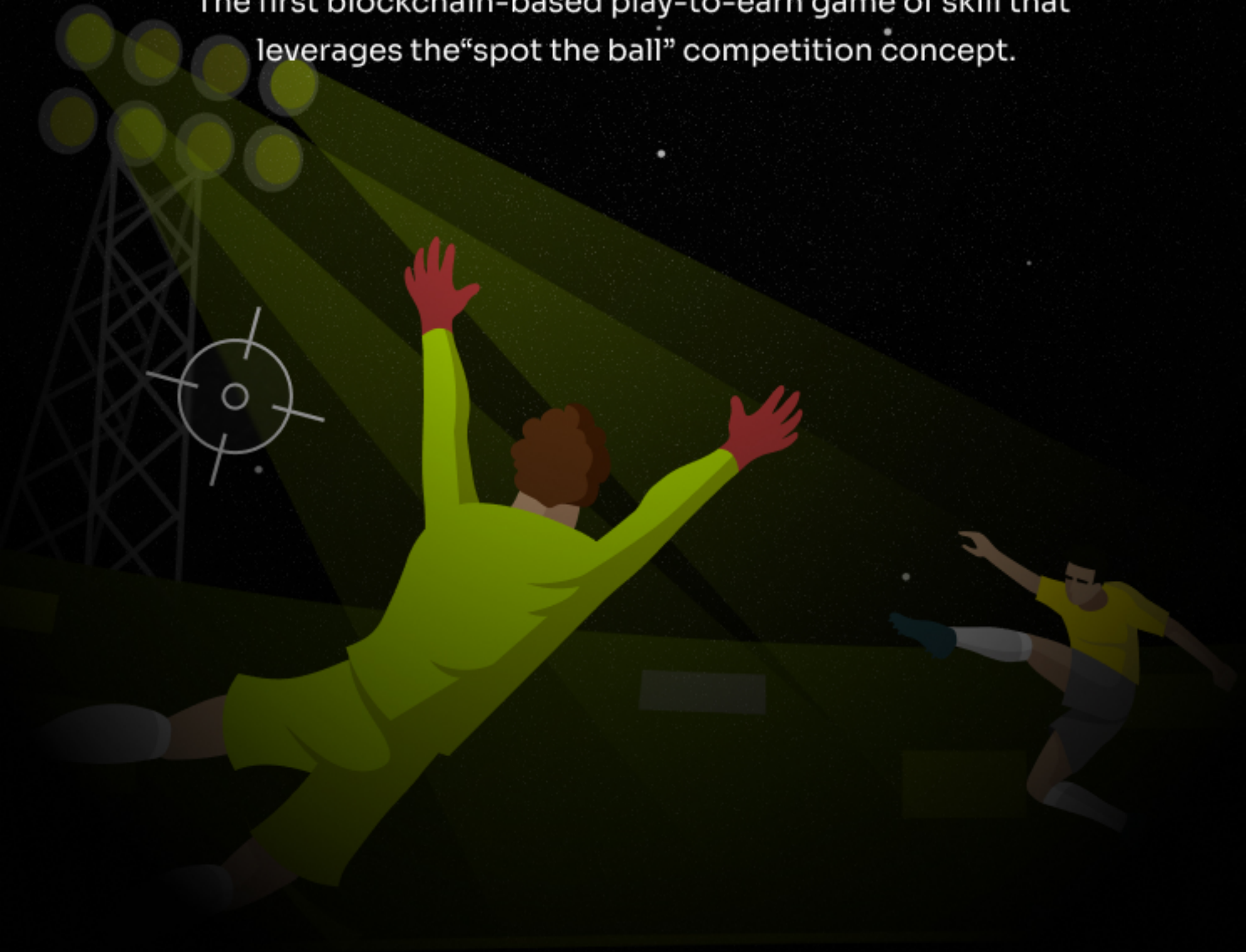




iθΛLɾ

# IBALR Litepaper

The first blockchain-based play-to-earn game of skill that leverages the “spot the ball” competition concept.



# Introduction

## Project overview

iBALR is a decentralized, permissionless, game of skill, which combines several state of art DeFi elements, as well as innovative designs to tackle game balance and pace. Those include:

- ⊕ Elastic pools
- ⊕ NFTs
- ⊕ DAO
- ⊕ A utility token with the following functions:
  - ⊕ Discounts
  - ⊕ Payments
  - ⊕ Staking
  - ⊕ DAO participation

## Market size

iBALR is a game that will be played by ball sport fans from all over the world. The game taps into many segments such as sports games, gambling, crypto games and crypto gambling. This allows it to gather participants from sectors already amounting to billions or even trillions of dollars worldwide.

To put things into perspective, 4.2 billion people bet on sports related games at least once a year. Additionally, the crypto gaming sector has generated more than \$3 billion in revenues only in Q3 of 2021. There are more than 3 billion gamers worldwide. Impressive right?

Incorporating gambling, gaming, NFTs, DAO and DeFi will draw users from all segments of the current blockchain space. Arguably, there will be something for everyone. Staking for yield farmers, profit distribution for passive income seekers, NFTs for NFT traders and collectors, gambling for die-hard gambling fans and sports gaming for gamers.

## Go-To Market Strategy

Our Go-To Market Strategy can be separated into three distinct phases.

### Initial Phase

#### Main Objectives

A pre-token launch NFT drop as well as launching the actual \$BALR token is a major objective of the Initial Phase. It will allow us to kick start part of the functionalities of the platform, such as staking and also generate more interest towards the product.

NFTs will be sold at an initial NFT drop with each NFT representing different perks that the NFT holder will have the right to benefit from. Furthermore, more mechanisms will be developed such will include upgrading the NFTs via token burns and different NFT burning mechanisms.

Additionally, raising the awareness in the sports gaming, gambling and crypto communities is a major target. It will also allow us to build the iBALR core community and grow the social media following.

### Strategy

Establishing significant partnerships and organizing AMA events, while creating media and influencer awareness in the crypto sector will be a major strategy to achieve the objectives outlined above. In addition, airdrop bounty programs might be utilized as they are a proven method to increase the awareness and hype in the community.

The most significant strategy to bring the hype to an extreme level, would be the acquisition of the assets for the first 24 prize competitions. Such assets include Doodles, Bitcoins, Ethers, Doge, Decentraland, Cool Cats, CyberKongz, Dead Fellaz, BoredApeYachtClub and others. All those purchases will be publicly announced and put into contracts for the game competitions.

In addition, we will prepare the community and let them know the concept of the game via weekly community competitions that include some aspects of the actual Spot-the-Ball game, alongside implementing marketing activity requirements to be able to qualify for the weekly game itself. Users will be able to win small prizes, however it will prepare them and get them to know the game before it is even launched.

## Development Phase

### Main Objectives

Launching the game will be the major milestone in the Development Phase. During this phase additional community growth and player gathering will be another major objective.

### Strategy

In order to achieve the goals above, community events will be constantly organized aiming to bring more players as well as educate them on the way they can earn and win. Publishing weekly reviews and quality video materials on YouTube is another tool to achieve the milestones of the Development Phase. Alongside our personal social media outlets, strong outside media presence and coverage by influencers will greatly strengthen our outreach.

## Expansion Phase

### Main Objectives

Listing on multiple renowned centralized and decentralized exchanges will allow us not only to expand the player base to mainstream users and new markets, but also reach runaway user growth. Thus, exchange listings are the single most important objective to have a successful Expansion Phase.

### Strategy

Raising the stakes for in-game rewards, will allow us to bring the volumes of \$BALR trades.

This in turn will facilitate introducing partnerships with Tier 1 exchanges and other crypto products and platforms. Partnering with real-world businesses and products can also be explored as they can raise the awareness of their brand via providing prize rewards for the respective competition.

# Gameplay

## Gameplay overview

iBALR is a fun to play game based on the so-called “Spot the ball” competition. Spot the ball was usually referred to as a traditional newspaper promotion, where the player has to decide where the position of a ball, which has been removed, is from a photograph of a ball sport, where users with more experience in ball sports may use their experience as an advantage. It is inspired by the well-established BOTB game.

## Elastic pools

At any given time, there is only one active game of iBALR which is represented by a pool. People who wish to participate in the game can buy a ticket worth 5 USD (one address can purchase at most 10% of the tickets within a single pool). Once the pool is filled, the game is played and a winner is decided (more on this in the sections below).

The first pool will be started with a capacity of 10 000 USD. Each time when a pool is filled, the next pool has a 20% larger capacity (e.g. if the 10k pool is filled, the next one will have a capacity of 12 000 USD, the one after it a capacity of 14 400 USD, etc).

<https://www.botb.com/>

paper iBALR  Litepaper iBALR  Litepaper iBALR  Litepaper iBALR

iBALR  iBALR  iBALR  iBALR  iBALR  iBALR  iBALR

On the flip side once started if a pool is not filled within 24 hours two things happen:

- ⊕ If the pool was filled at least to a 50% capacity, the game is still played, otherwise the game is voided and all participants get a full refund on their deposits (no platform fee is collected in this case).
- ⊕ The next pool is reduced by 50% in size.

The above is a self-balancing mechanism, which ensures that the game adapts itself to the current demand. The minimum size of the pool is 500 USD (e.g. even if there is no demand the pool cannot be lower than this).

The finalization of the pool is triggered by the last participant in the pool. Since those operations can be costly (paying for the gas fees to run all the calculations for the winner and initiate a new pool), the last participant in the pool gets to play for free (e.g. he gets a full rebate on this entry fee).

## Game participation

Anyone can participate in the pools, as long as they pay the entry fee, which is set at 5 USD. The fee is payable in the native \$BALR token or in selected cryptocurrencies. Users can get up to 50% discount on the entry fee in the following ways:

- ⊕ Paying in the \$BALR token carries a 10% fee discount.
- ⊕ Staking the \$BALR token grants up to 15% fee discount (described in the staking section)





Where:

- ⊕  $S^1$  is the discount rate
- ⊕  $V_c$  is the current value, representing the utilization rate of the pool.
- ⊕  $I_s^1 / I_e$  are the start / endpoints of discount interval
- ⊕  $V_s / V_e$  are the start / end values for discount values

Examples:

- ⊕ If the user enters the pool at 0% utilization rate (0% of the capacity of the pool is filled), he gets a 15% discount.
- ⊕ If the user enters at 40% utilization rate, he gets a 5% discount.
- ⊕ If the user enters at 65% utilization rate, he gets no discount.

## Winning & rewards distribution

The person (or people) who have the closest prediction to where the ball lands wins the round and shares the prize pool, minus a 10% fee which is collected by the protocol. The only exception to this is if there is suspicion of someone trying to intervene with the algorithm deciding on the winner (explained in the sections below). In case this happens, all participants are refunded their entry fee, however the 10% protocol fee is still collected as a deterrent for bad actors.

Users who win have the following options:

- ⊕ Stake their reward for a period of 12 months in the protocol's stake pool, during which team they will earn additional APY and other bonuses.

After the 12 month period they receive 100% of their reward plus additional APY earned. At the time of staking any reward in a currency different than the \$BALR token is converted to \$BALR

- ⊕ Receive their reward right away but pay a 50% tax on it, which is collected by the protocol.
- ⊕ Continue to use their prize money to play the game

## The Premium League

A % of all fees collected by the platform are deposited in a Premium league fund. Once this Premium League fund pool is filled, there is a special game: played, where only the most dedicated iBALR fans can participate. This pool has no entry fee, but it is instead limited to:

- ⊕ Anyone who has won a regular pool game (multiple wins = multiple participations).
- ⊕ People who stake the \$BALR token at a certain threshold (explained in the staking section).
- ⊕ Certain NFT holders (explained in the NFT section)

The DAO can choose to add additional rewards to the Premium League (via the Ecosystem fund) such as:

- ⊕ NFTs
- ⊕ \$BALR from the protocol treasury
- ⊕ Physical prizes

# Token Economy

## The \$BALR token

The \$BALR token is the core utility/governance token of the platform, which has the following features:

**Payment.** The token can be used to play the game and users who choose to do so, get a 10% discount on their entry fee.

**Staking / Discounts.** Users who stake \$BALR token get multiple benefits as described below:

Level	Tokens	Benefits	% of total	FIAT cost*	Difficulty inc.
1	8,000+	5% entry fee discount	0.001%	400	-
2	80,000+	10% entry fee discount	0.010%	4,000	1000%
3	400,000+	10% entry fee discount, participate in Governance	0.051%	20,000	500%
4	2,000,000+	10% entry fee discount, 5 participations per draw in the Premium League, participate in Governance	0.257%	100,000	500%
5	5,000,000+	15% entry fee discount, 20 participations per draw in the Premium League, participate in Governance	0.643%	250,000	250%

In the table above:

- ⊕ **Tokens** is the minimum number of tokens required to achieve the level
- ⊕ **% of total** represents the tokens needed as % of the total token supply
- ⊕ **FIAT cost** is the FIAT equivalent of those tokens based on the highest token sale price
- ⊕ **Difficulty inc.** is the increase in the number of tokens required between different levels.

The FIAT cost above is based on the highest price during the token sale.

**All tokens are staked for a duration of 12 months.** After this duration expires, the users continue to have the benefits, but they can now unstake at any time. **If users choose to unstake before the duration has expired (for any period of time), this carries a penalty of 50% on the staked tokens.**

**Staking / APY.** On top of all the perks listed above, stakers receive variable APY for their stake. This APY has three sources:

- ⊕ 50% of the fee for early unstakers is distributed between all people who are still staking
- ⊕ 50% of the fee for people who decide to cash out early is distributed between all people who are still staking
- ⊕ 10% of the entry fee for regular pools

## Fee distribution

We can summarize all fees and their distribution collected by the platform as follows:

### 1. Participation fee -10%.

a. This fee is collected from each regular draw which is:

- i. Successful
- ii. Canceled because of suspicion of fraud

b. The participation fee is NOT collected in the following cases:

- i. The draw is voided, since the pool was not filled at least 50% during the 24 hour period.

c. This fee is distributed as follows:

- i. 80% to the Premium League prize pool
- ii. 10% to the \$BALR stakers
- iii. 10% to the protocol Treasury

### 2. Early withdrawal fee / Instant cash-out fee- 50%

a. This fee is collected from each winner who does not wish to stake their reward for 12 months, but to withdraw it instead and from every \$BALR staker who wants to withdraw their tokens before the 12 month staking period.

b. This fee is distributed as follows:

- i. 50% to the \$BALR stakers
- ii. 20% to the Premium League prize pool
- iii. 10% to the protocol treasury
- iv. 20% converted to \$BALR tokens and burned.

## NFTs

The iBALR platform will introduce two types of NFT collections, which can affect gameplay.

- ⊕ Tickets
- ⊕ Trainers

**Tickets.** Tickets come in two varieties:

- ⊕ Silver tickets: those will be distributed via an NFT drop (described below) and grant a 10% discount on the entry fee for regular prize pools.
- ⊕ Golden tickets: Combine 3 silver tickets and 1000 \$BALR tokens (effectively burning all of those) for a 10% chance of obtaining a gold ticket. Each gold ticket grants you 1 participation for each Premium League.

**Trainers.** Trainers are a special kind of NFT, which increases your chance of winning! Each level trainer expands 1px adjacent to the point which you have selected, thus significantly increasing your chances of winning the game. For example when you have a level 1 trainer, this grants you one extra adjacent pixel, on top of the one which you have already selected, thus doubling your chances of winning!

Trainers have 5 levels for a total of 5x chance of winning for each of your participations. Upgrading your trainers involves burning 10 000 \$BALR tokens, which grants you a chance for a higher level trainer. The chance decreases with each level as follows:

- ⊕ Level 1 trainer 5% chance to upgrade per try.
- ⊕ Level 2 trainer 4% chance to upgrade per try.
- ⊕ Level 3 trainer 3% chance to upgrade per try.
- ⊕ Level 4 trainer 2% chance to upgrade per try.

Once level 5 is reached, the user can now opt to try and upgrade their trainer into a master trainer. Master trainers have 1px RADIUS around the point which was selected, this effectively granting 10x chance of winning. The upgrade attempts still cost 10 000 \$BALR tokens per attempt, but the chance is now 0.1% per try.

## Determining the winner

Once the pool is filled, the game needs to determine a winner. The winner is the user(s) who has selected a point, which is closest to the true average of all selected points. The true average is determined by finding a point, which has the lowest average euclidean distance from all selected points. This approach however, has two potential issues, which we will address below:

1. A user can “game” the system by participating multiple times in the pool and selecting points, which are far off the true center, thus distorting the winner selection in his favor.



2. If a user manages to obtain the coordinates which, other users have selected, he can deterministically predict the winning slot.

In order to address both of the above issues, iBALLR will use the following algorithm for determining the winner:

1. Outlier detection: all selected points on the board, which are 2 standard deviations away from a simple average of all coordinates are removed.
2. Out of the remaining points 60% are selected at random.
3. Using k-means clustering algorithm, clusters of points are defined.
4. If there is a cluster of points, which has a significant size (>15% of the valid points) and its cluster centroid is more than X pixels away from other clusters, then the draw is determined as a possible fraud and is invalidated.

The parameter X will initially be determined by numerical testing and later on will be subject to governance.

## Governance

The decentralization of the project will be structured in 3 stages as follows:

1. **Early days** - during this period, the team is in full control of the project, and no voting is done. This is because there will be bugs and events which require immediate hotfixes, and this cannot be done really democratically.
2. **Semi-decentralisation** - during this period, the team is still in complete control of the project and can deploy hotfixes same as above, but for the non-urgent decision, it can take community input via a forum or even via off-chain voting like a snapshot - <https://snapshot.page/#/>
3. **Full decentralization** - where the project will implement a process following industry best practices, as defined further below.

During phases 2 and 3, voting will be done via Voting power. Voting power is obtained by staking the project's token above a certain threshold (as described in the staking section above).

In phase 3, the voting will closely resemble the proven model of Compound governance.

The iBALR protocol will be governed and upgraded by \$BALR token-holders, using three distinct components:

- ⊕ The \$BALR token
- ⊕ The governance module
- ⊕ Timelock

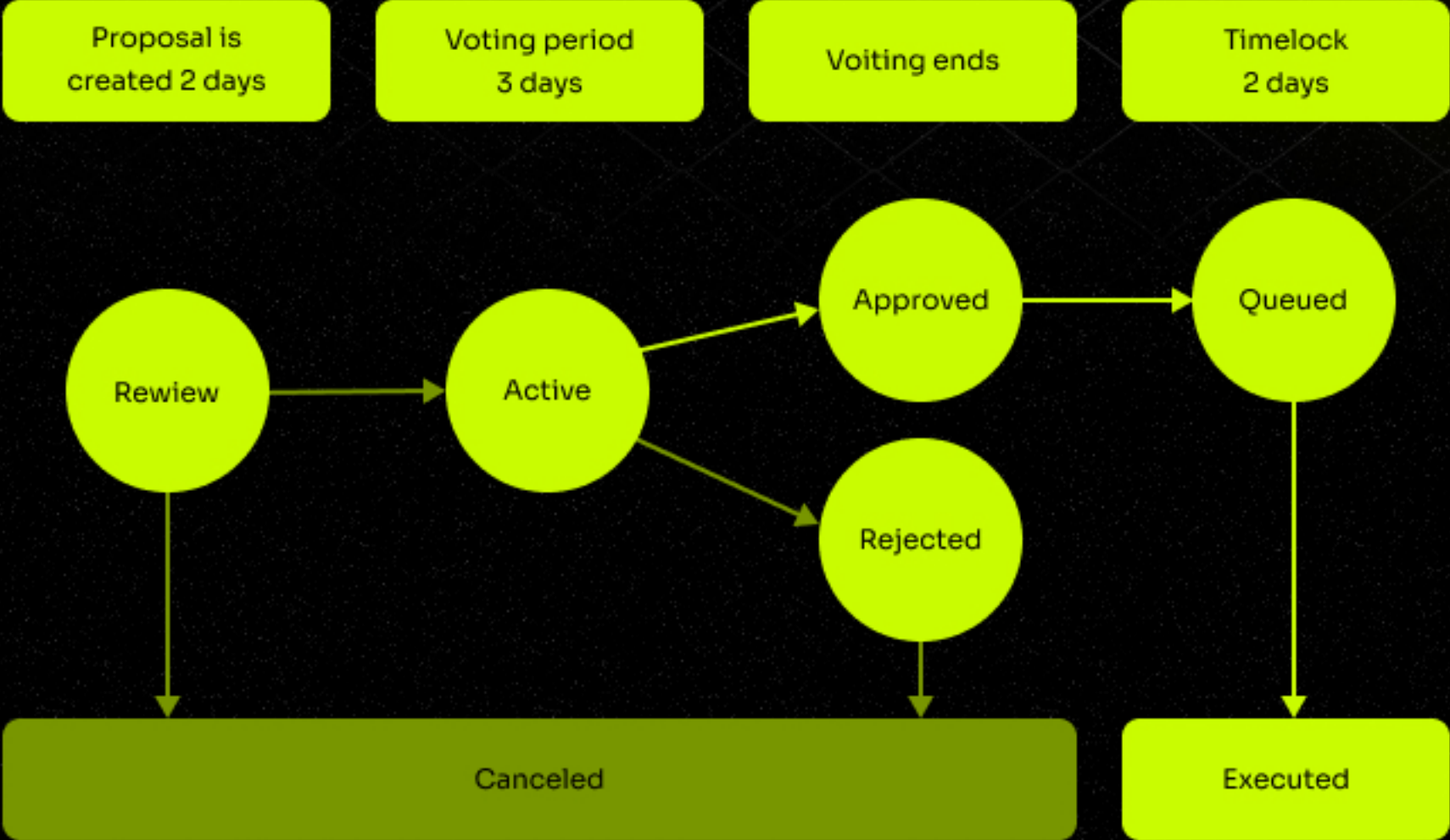
Together, these contracts will allow the community to propose, vote, and implement changes through the administrative functions of the token itself or the Protocol. Proposals can modify system parameters, make changes to the token, or add entirely new functionality to the protocol.

Any address eligible for governance can create an Autonomous Proposal, which becomes a governance proposal after receiving 1% token support.

When a governance proposal is created, it enters a 2 day review period, after which voting weights are recorded and voting begins. Voting lasts for 3 days:



If a majority and at least 5% tokens is cast for the proposal, it is queued in the Timelock and can be implemented 2 days later. In total, any change to the protocol takes at least one week.



During the early stages of the Governance module implementation, the project team will have the power to veto any proposal in the Timelock which could significantly hurt the protocol. At a later stage, the team will renounce this power.



# Sale financials & token generation event

## Basics

⊕ Ticker:	\$BALR
⊕ Sale Denomination currency:	USD
⊕ Jurisdiction:	Malta
⊕ Eligibility:	Subject to KYC and AML
⊕ Sale stages:	3
⊕ Sale start date:	-
⊕ Sale end date:	-
⊕ Accepted currencies:	USDT, USDC, BUSD

## Token Generation Event Summary

⊕ Softcap:	2.0 MM USD
⊕ Hard Cap:	5.9 MM USD
⊕ Initial Total Tokens:	777.8 MM \$BALR
⊕ Sale Tokens:	202.2 MM \$BALR*
⊕ Sale allocation:	26.00%
⊕ Remaining tokens post-sale:	burned

## Vesting schedule, per token allocation

Allocation	Allocation	Tokens (MM)	Listing release	Cliff	Vesting	Monthly release
Seed round	10%	78	5%	12	36	2.64%
Strategic round	12%	93	10%	6	36	2.50%
Public round	4%	31	20%	-	12	6.67%
Team	14%	109	5%	6	36	2.64%
Partnerships / Advisors	6%	47	5%	6	36	2.64%
Liquidity	5%	39	20%	-	12	6.67%
Treasury	19%	148	5%	-	24	3.96%
Ecosystem	30%	233	5%	-	36	2.64%
<b>Total</b>	<b>100%</b>	<b>777,78</b>	<b>6,95%</b>	-	-	-

**Stage 1****Seed round**

⊕ Token price:	0.020 USD
⊕ Bonus tokens:	0.0%
⊕ Stage number of tokens available:	77.8 MM BALR
⊕ Stage cap:	1.6 MM USD
⊕ Minimum investment:	100 USD
⊕ Maximum investment:	TBD
⊕ Stage start:	TBD
⊕ Stage end:	TBD



**Stage 2****Strategic round**

⊕ Token price:	0.030 USD
⊕ Bonus tokens:	0.0%
⊕ Stage number of tokens available:	93.4 MM BALR
⊕ Stage cap:	2.8 MM USD
⊕ Minimum investment:	100 USD
⊕ Maximum investment:	TBD
⊕ Stage start:	TBD
⊕ Stage end:	TBD

**Stage 3****Public round**

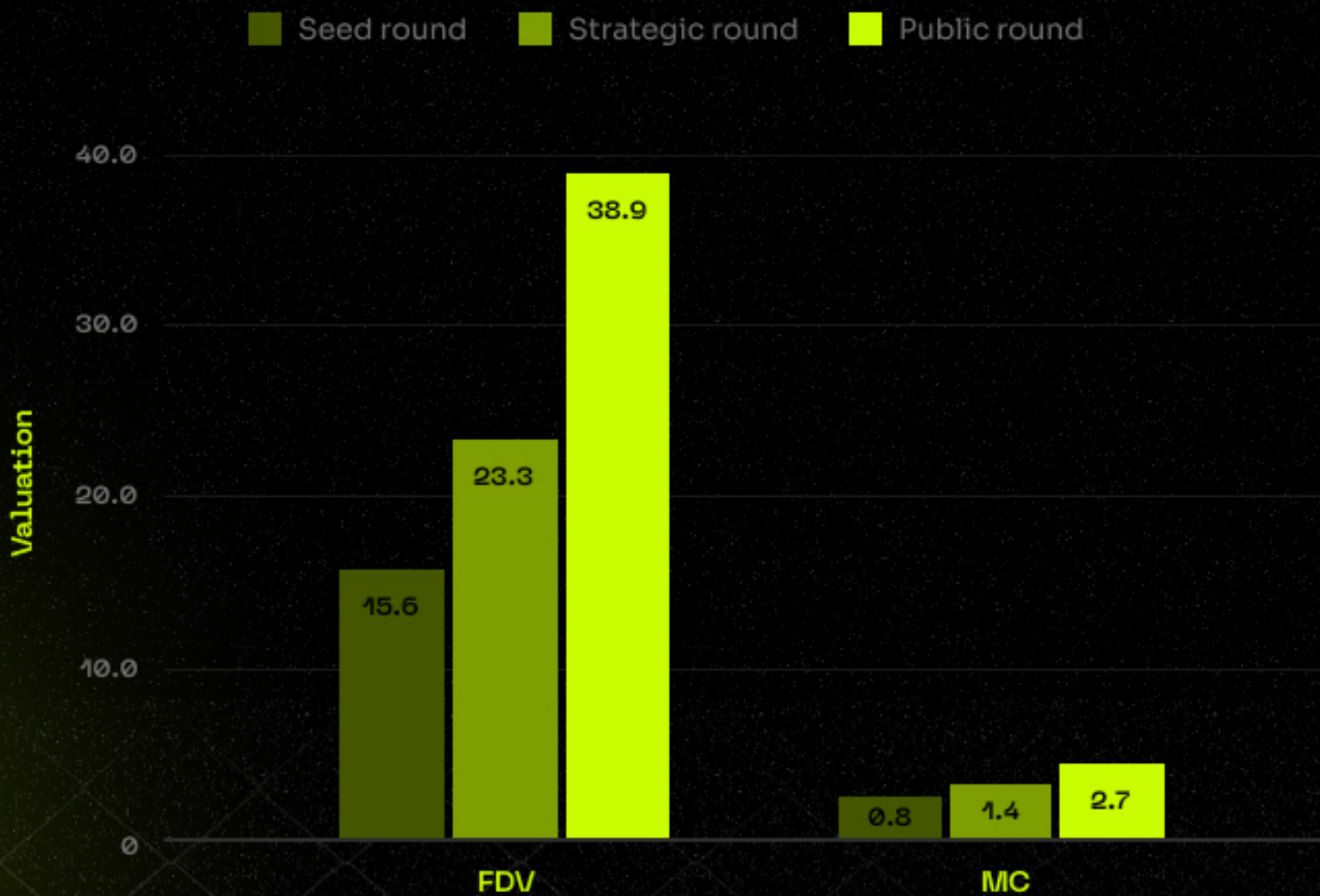
⊕ Token price:	0.050 USD
⊕ Bonus tokens:	0.0%
⊕ Stage number of tokens available:	31.2 MM BALR
⊕ Stage cap:	1.6 MM USD
⊕ Minimum investment:	100 USD
⊕ Maximum investment:	TBD
⊕ Stage start:	TBD
⊕ Stage end:	TBD

**\*Sale tokens calculated under the assumptions of**

⊕ **Seed round** : 77.8 MM BALR sold @0.020 USD, with bonuses: 0.0% = 1.6 MM USD raised

⊕ **Strategic round** : 93.4 MM BALR sold @0.030 USD, with bonuses: 0.0% = 2.8 MM USD raised

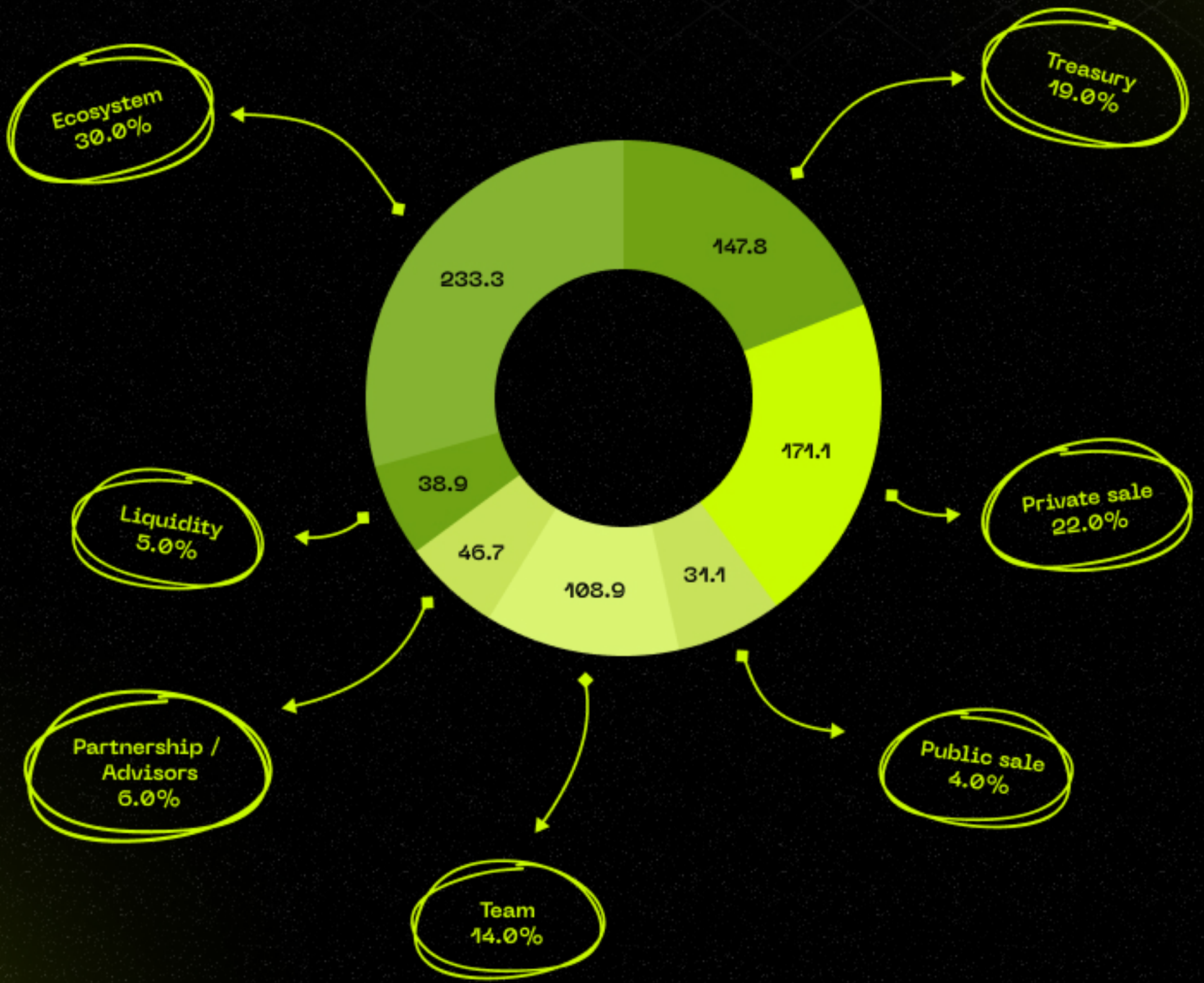
⊕ **Public round** : 31.2 MM BALR sold @0.050 USD, with bonuses: 0.0% = 1.6 MM USD raised



Projects' fully diluted valuation and circulating market cap, based on the token sale stages

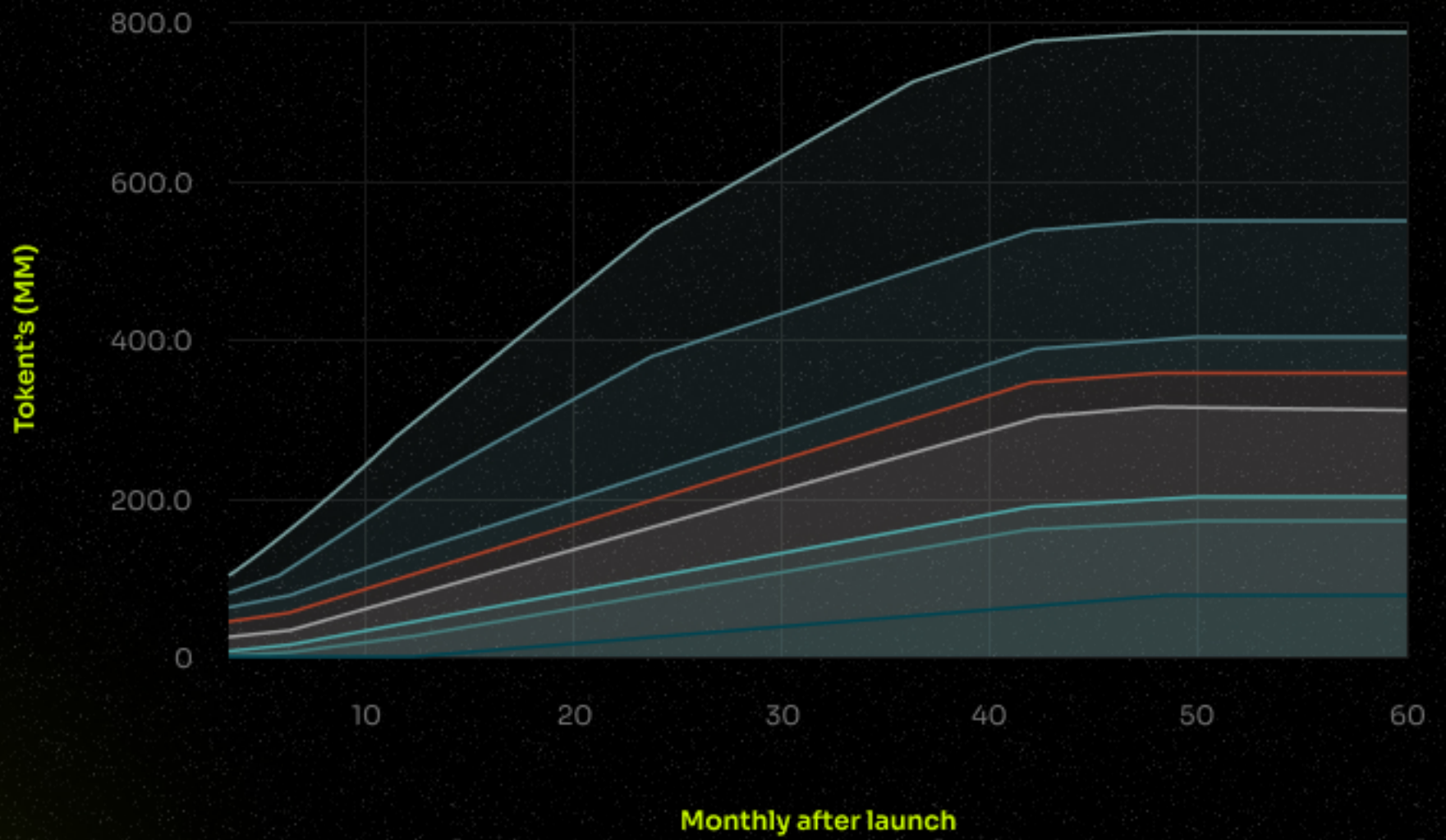


# Total tokens allocation. Assumes reached Hardcap



# Monthly token vesting schedule (detailed, non-aggregated)

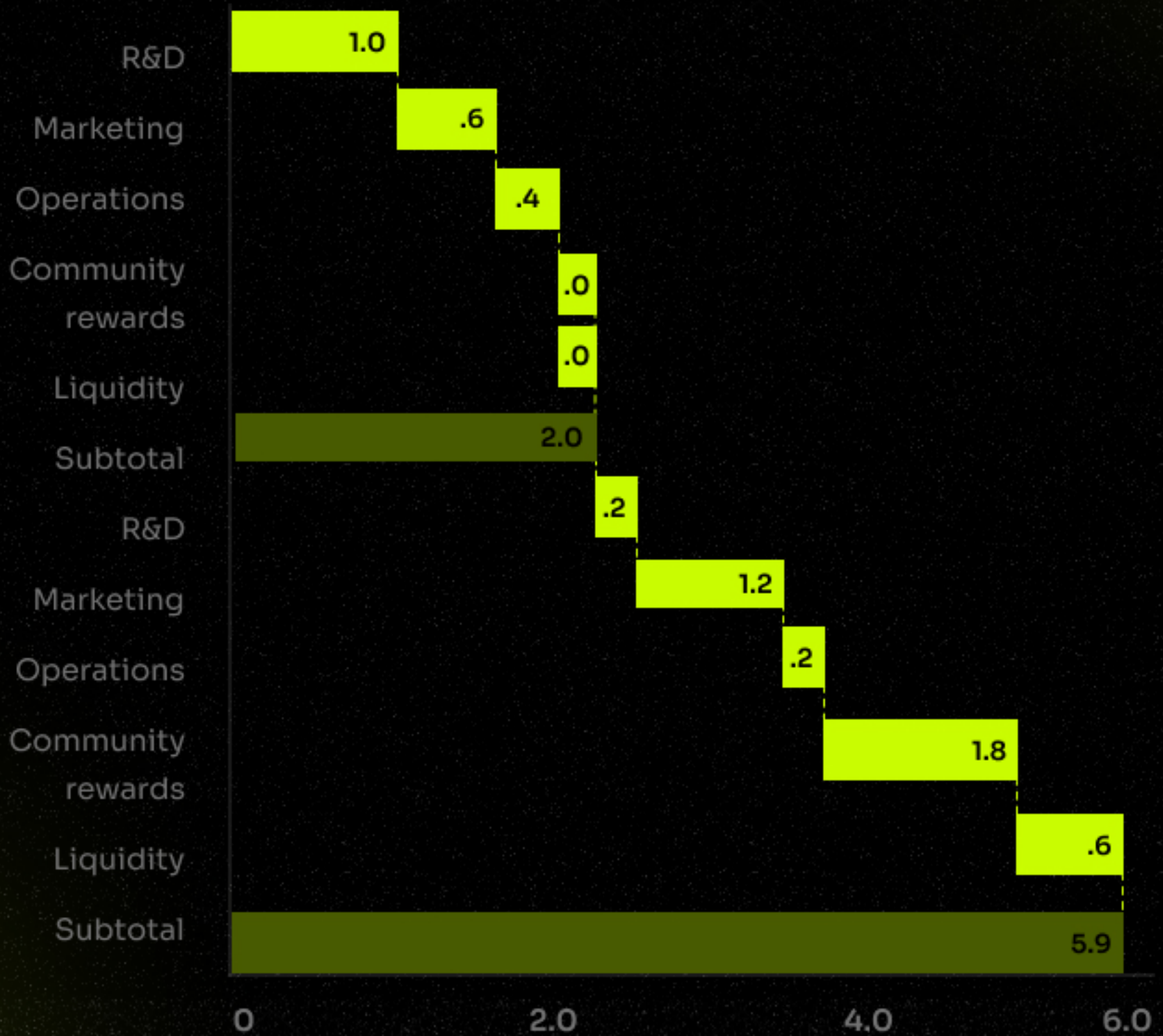
- Ecosystem
- Treasury
- Team
- Public round
- Liquidity
- Partnerships/Advisors
- Strategic round
- Seed round







## Breakdown of the fund utilization between the Softcap and the Hardcap





## Liquidity pool setup

The initial liquidity for the project pool (self-funded liquidity) on Pancake swap will be setup with the following parameters:

Pool liquidity		Pool sensitivity	
USD equivalence	500,000	Action	New price
Tokens	9,523,810	75% Bought	0.840
Starting price	0.053	75% Sold	0.001

The breakdown of the numbers above:

- ⊕ The pool will be opened for the \$BALR/USDC pair. With USD equivalence representing the liquidity posted in USD value equivalence for USDC. This money will come out of the liquidity allocation for funds raised.
- ⊕ Tokens is the initial amount of tokens posted to the pool coming from the liquidity token allocation.
- ⊕ Starting price is the initial price of the pool, set to 5% higher than the highest token sale price during the token sale event.



# NFT drops

After the token sale, a further sale of the NFTs described in the document will be conducted as follows:

- ⊕ **Silver tickets.** A total of 10 000 silver tickets will be offered at a fixed price of 0.5 BNB per ticket, for a total possible maximum raise of 5000 BNB. Those will be offered preferentially to \$BALR stakers (with the staking discounts applicable), and any unsold tickets will be sold to the general public.
- ⊕ **Trainers.** A total of 7 000 level 1 trainers will be offered via a Dutch auction .

Dutch Auctions have proven to be an effective way to quickly sell off NFT collections at the agreed fair market price while preventing gas wars, thus producing a better outcome for artists and collectors alike.

## Dutch Auction

⊕ NFT start price:	3 BNB
⊕ NFT floor price:	0.5 BNB
⊕ Stage number of NFTs available:	7,000
⊕ Price drop:	By 0.1 BNB every 1 hour (25 hours total)
⊕ Maximum Mint Quantity	5 per wallet for 12 hrs, then unlimited
⊕ Auction start	TBD
⊕ Auction end	TBD

The maximum possible raise under these parameters is 21 000 BNB and the minimal possible raise is 3 500 BNB (if all NFTs are sold).

Disclaimer: iBALR considers the mint price (sale price) of an NFT to be the price at the time a transaction is approved and not the price at the time a transaction was submitted. This can result in a lower purchase price, in which case the difference is automatically refunded to the bidder by the smart contract.

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