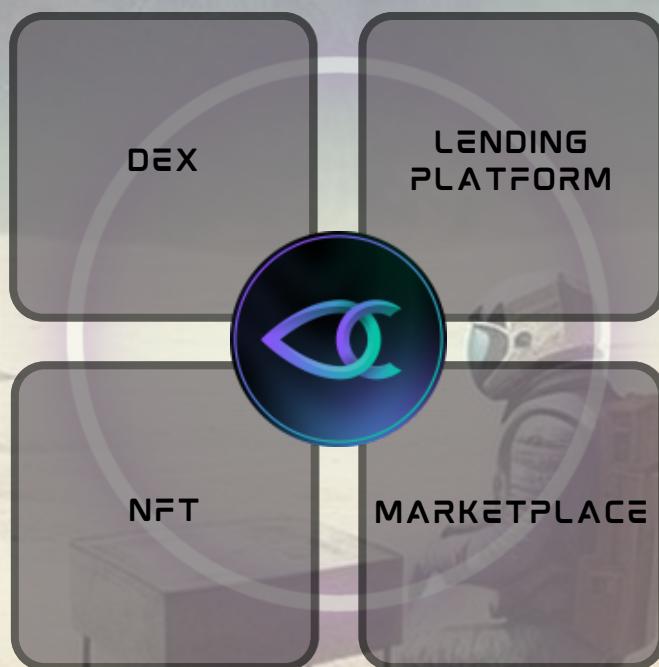


# TYCHE PROTOCOL WHITEPAPER 2.0



MEET TYCHE PROTOCOL  
&  
ENTER IN A NEW ERA





## Introduction :

TYCHE protocol is a WEB3 project that is designed to launch All-in-one defi (dApps) on different EVM and Rollups networks.

The project is focused on providing a platform that is both secure and reliable, with a particular emphasis on developing innovative features that can benefit users in multiple ways.

The project will start by launching an automated market maker (AMM), NFT staking dApp on Zksync, and it plans to expand its offerings with other dApps in the future, on different networks.

One of the most innovative features of the Tycche protocol is its NFT lending platform.

This platform is designed to allow users to borrow instantly by using their NFTs as collateral.

This is an entirely new concept that is poised to transform the lending industry, providing new opportunities for individuals to access funding when they need it the most.

The Tycche protocol team has been working tirelessly to ensure that the platform is not only easy to use but also offers a high level of security.

With a user-friendly interface and advanced security features, the Tycche protocol platform aims to provide a safe and secure environment for users to conduct transactions. With its focus on developing innovative features that can benefit users in multiple ways, the project is well-positioned to make a significant impact on the blockchain industry.

## INTRO



## Observation :

Today, the major problem within our ecosystem does not lie in innovation.

We have thousands of projects and hundreds of blockchains at our disposal to utilize.

What makes our ecosystem truly remarkable is its widespread open-source nature, which allows for easy adoption and utilization of code that is a marvel of engineering, transforming it into practical applications.

Although forking is often frowned upon in our ecosystem, it is, in fact, a positive aspect and one of the reasons behind the value of open-source. Why should we always start from scratch when creating something new?

Capitalizing on solid foundations is such an important part of any business model.

Harness the existing foundations at your disposal to craft a visionary framework that empowers you to effectively bring forth your groundbreaking and innovative end product

However, the issue arises from the fact that we prioritize innovation without thoroughly considering if there is an interesting market fit for the project.

We tend to deploy aggressive marketing strategies to achieve immediate mass adoption, neglecting the fundamental aspects of our ecosystem. Presently, our ecosystem suffers from both a lack of adoption and excessive specialization.

No fancy mathematical formulas can solve this, It's all just smoke and mirrors.

## OBSERVATION



## Problematic :

Hyper-specialization becomes meaningful only when your sector expands beyond a niche and has the potential to reach a wide audience.

Unfortunately, hyper-specialization often leads to tokenomics problems.

You can develop intricate mathematical formulas, but if your product is not widely used, these formulas hold little significance.

Conversely, you can focus on token valuation and utilization.

Regrettably, tokens frequently serve only one, two, or a maximum of three functions.

The first function is incentive, which inevitably comes with dilution.

The second function is governance, but it doesn't provide much intrinsic utility to your token.

Consequently, investors end up with diluted tokens that offer minimal benefits.

This is where TYCHE aims to bring about change.

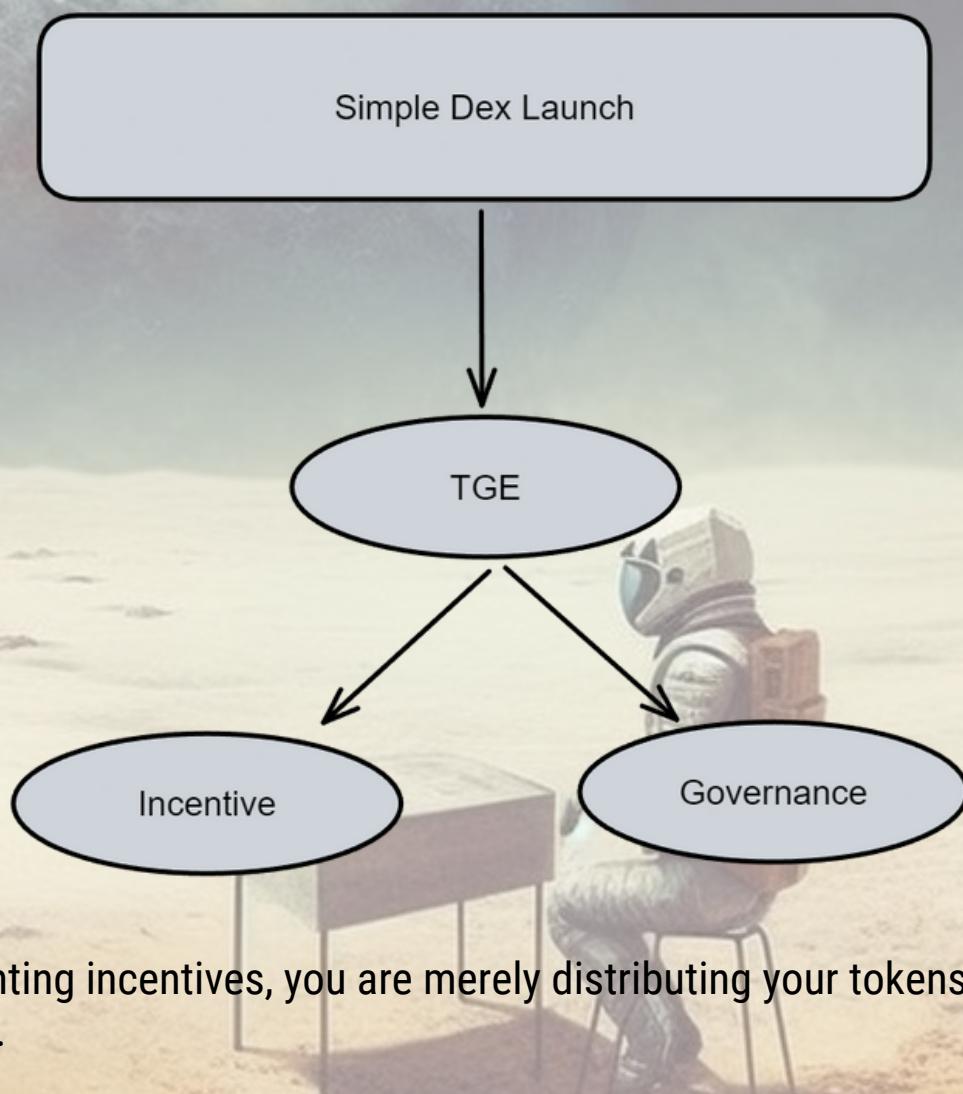
We began with a simple observation that highlights the common trend of tokens diluting over time, resulting in a decline in value, which discourages investor interest. Based on this realization, we understand that a successful token is one that is extensively utilized in multiple ways.

### PROBLEMATICS



## Exemple :

### A typical Dex launch :



By implementing incentives, you are merely distributing your tokens to investors and farmers.

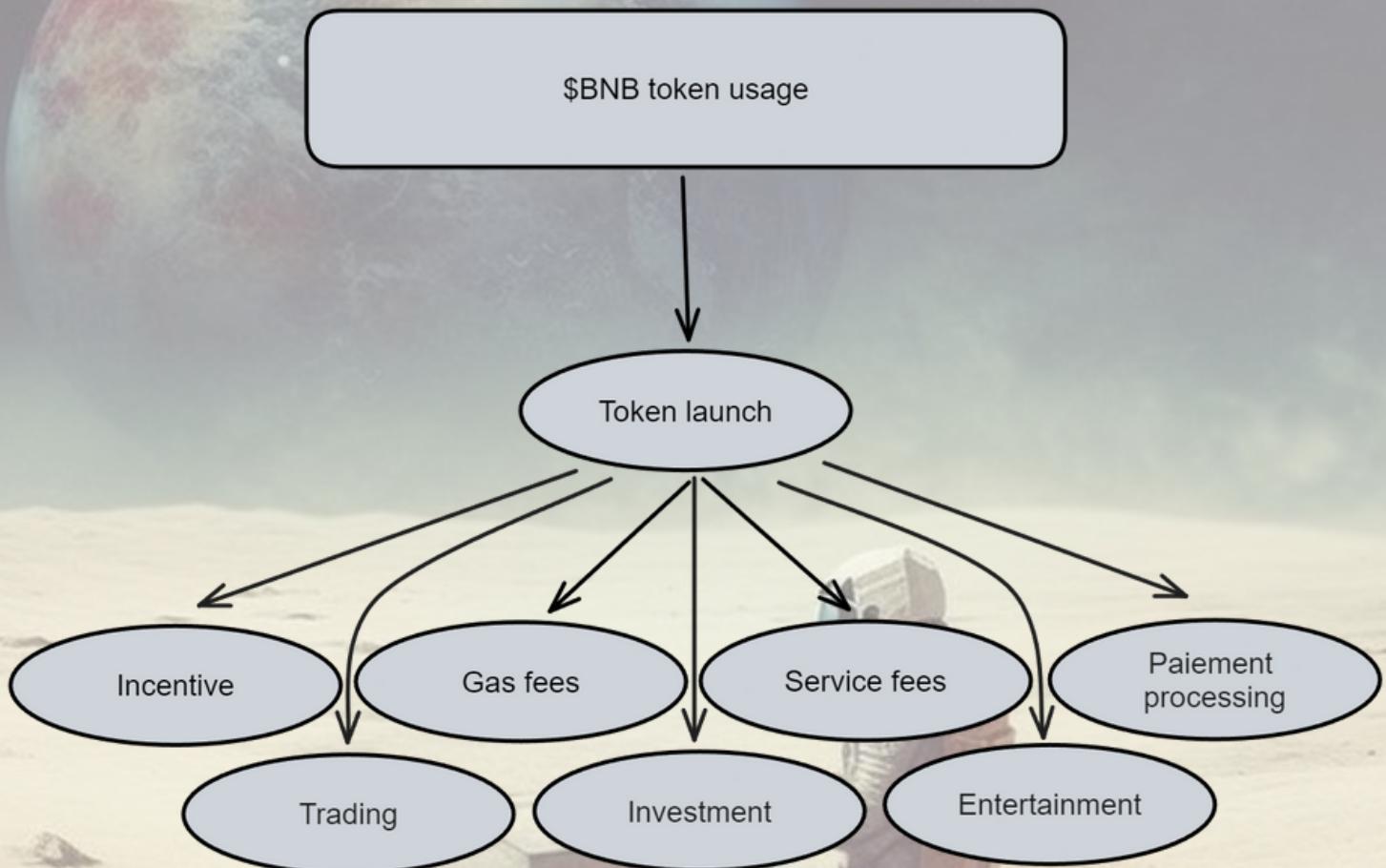
But what purpose does it serve? It cannot be your sustainable revenue stream, as this mechanism lacks the creation of market depth, and its viability will be short-lived.

### SIMPLE DEX LAUNCH



## Exemple :

### More complex token use cases :



By strategically implementing increased token utilization, these projects have successfully created an environment that preserves significant value within the crypto market.

How? Through utilization.

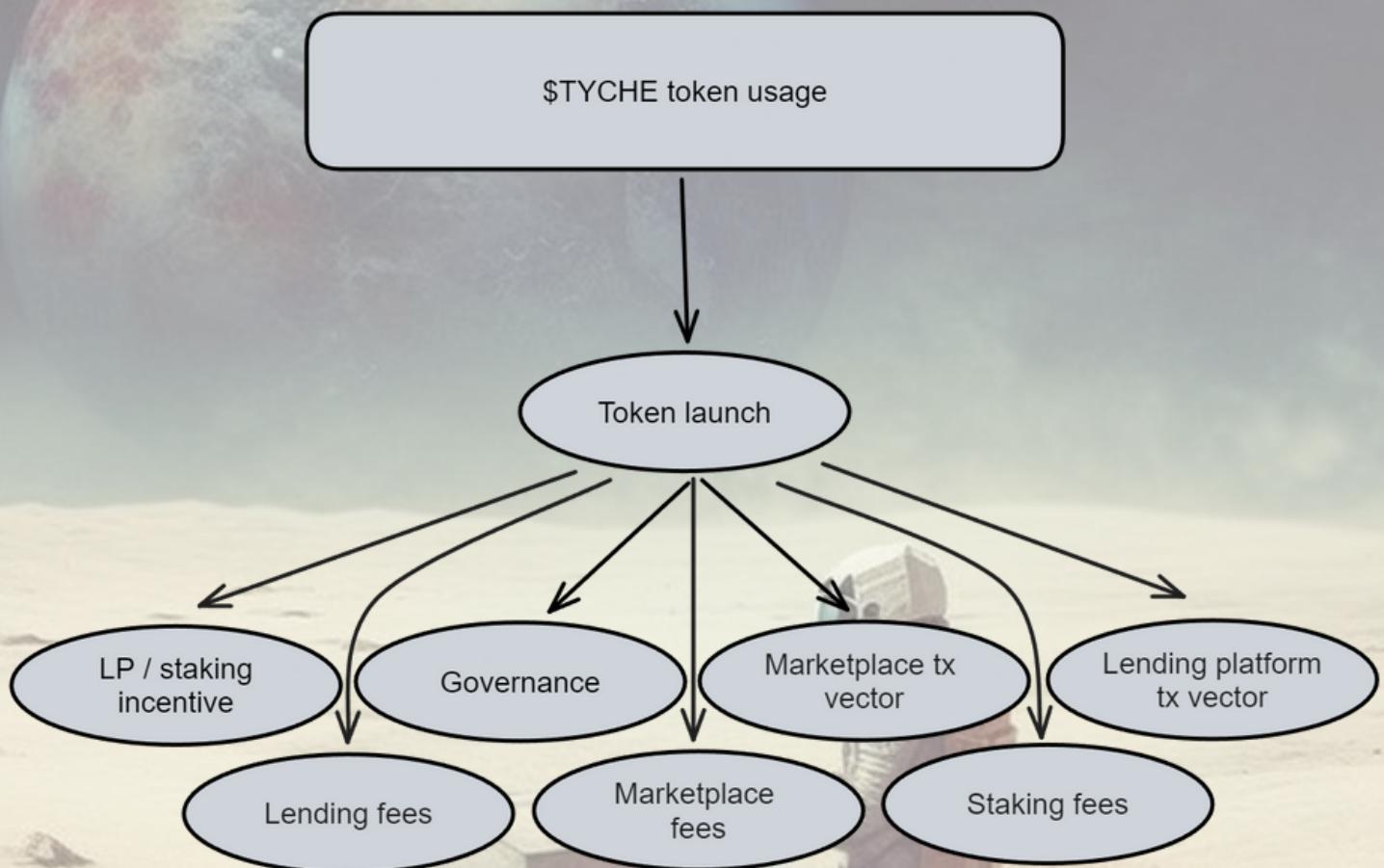
The \$BNB token itself is not inherently complex, nor is the BNB chain a highly intricate blockchain. However, the exceptional market fit they have achieved is undeniable.

### COMPLEX TOKEN LAUNCH



## Our solution :

### \$TYCHE token use cases :



Our goal is to create an environment where you can use our token to do various type of transaction to increase our token utilization.

But a token which is simply used as a transaction vector will not serve as much use cases as we wanted to, so we need to add an incentive to the people who hold and use our token as well as governance rights.

By using our token on our platform we will also increases fees generated by each transaction that can be redistributed to NFT holders or Token holders.

## OUR SOLUTION



## Vision :

Blockchain is a dynamic and rapidly developing space that is yet to reach its full potential.

Over the years, we have seen specialized blockchain applications emerge, allowing for the use of a diverse range of digital assets.

Tyche Protocol is a blockchain protocol that brings together the key principles and qualities of decentralized finance (DeFi) and non-fungible tokens (NFTs). Our aim is to create a cohesive ecosystem that streamlines the exchange of NFT and Fungible tokens for users.

While fungible assets can be easily traded, non-fungible tokens, which derive their value from their scarcity, present unique challenges. These assets cannot be traded easily on standard automated market makers (AMMs).

At Tyche, we recognize the need for a comprehensive solution that enables the seamless exchange of NFTs through adapted protocols. Our goal is to create a more inclusive blockchain ecosystem that provides opportunities for everyone.

Through our protocol, users can trade / Lend / Borrow NFTs and Fungible tokens on an open and transparent marketplace, enabling the seamless use of these unique digital assets.

Our approach aims to create a more equitable and accessible blockchain protocol that benefits all NFT and DeFi users.

To ensure our token's success, it is crucial for it to serve as a widely accepted medium of exchange across a multitude of applications.

### VISION



**Frictionless exchange**

USER A

DEX

CONTRACT

**Liquidity as a value**

The purpose of this Liquidity HUB is multi-faceted, but its primary goal is crucial in achieving our overarching vision:

- This HUB will create and maintain the necessary liquidity for trading on the lending and borrowing platform. By creating significant liquidity on our DEX, we aim to provide sufficient liquidity depth to ensure the efficiency of our lending protocol.
- It will also enable a secondary utility for our TYCHE token by making it more liquid, easily exchangeable, and attractive to DeFi users.

It represents the foundation of our project, an essential piece in its construction.

DEX



## Mechanics :

AMMs implement a peer-to-pool method, where liquidity providers (LPs) contribute assets to liquidity pools while individual users exchange assets with a pool containing the swap assets.

It benefits both LPs and swap users with accessible liquidity provision and swap.

Users obtain immediate liquidity without having to find an exchange counterparty, whereas LPs profit from swap fees from users.

As AMM, Tyche uses liquidity pools (LP) of different assets valued relative to each other.

The liquidity pool will be used as a single counterparty for each transaction, pricing assets algorithmically with a conservation function unlike traditional order-book-based exchanges, where the price of an asset is determined by the last matched buy and sell orders.

Tyche DEX will share the same conservation function, slippage, and divergence loss functions as Uniswap.

As such, the system is structurally similar, but the main difference may lie in parameters and/or mechanism adaptation.





## Mechanics :

### Key Features of the Tyche AMM :

- Decentralized: The Tyche Protocol is completely decentralized, meaning that no central authority has control over the system. This eliminates the need for intermediaries, making transactions faster, cheaper, and more secure.
- Automated Market Making: The Tyche Protocol uses an automated market-making algorithm to match buyers and sellers and determine the price of assets. This eliminates the need for a centralized exchange and offers a more efficient and fair market.
- Token Agnostic: The Tyche Protocol is token agnostic, meaning that users can trade any token they wish, as long as it is supported by Zksync blockchain. This allows for a more diverse and dynamic market.
- Low Fees: The Tyche Protocol has low transaction fees thanks to Zksync mechanism (off-chain / on-chain) , making it more accessible and affordable for all users.
- Secure: The Tyche Protocol is built on top of Zksync blockchain and secured by Ethereum validators, providing a secure and transparent ledger of all transactions.





### Liquidity Pool: The Heart of Tyche AMM

The Tyche Protocol operates on a liquidity pool, which is a collection of assets provided by users who want to participate in the platform.

When a user deposits assets into the liquidity pool, they receive a proportional share of the pool in return.

This shared pool of assets is what allows the Tyche Protocol to match buyers and sellers and determine the price of assets based on supply and demand.

### Constant Product Formula: Setting Asset Prices Automatically

The constant product formula is a mathematical equation used by the Tyche Protocol to determine the price of assets.

This formula takes into account the total value of the liquidity pool and the relative amounts of the different assets in the pool.

By using this formula, the Tyche Protocol is able to automatically set the price of assets based on market conditions, providing a fair and reflective market for all users.

### Token Weighting: Balancing the Market

Token weighting is a process used by the Tyche Protocol to determine the relative importance of different assets in the liquidity pool.

By weighing the assets, the platform is able to calculate the price of assets in a balanced manner that accurately reflects market conditions.

### Trade Execution: Efficient and Intermediary-Free

The Tyche Protocol offers fast and efficient trade execution, allowing users to trade assets without the need for intermediaries. When a user wants to trade an asset, the Tyche Protocol automatically matches them with a buyer or seller and executes the trade. This reduces the time and costs associated with traditional exchanges, making DeFi more accessible to everyone.

DEX



## Mechanics :

### Price impact risks :

Price impact is the effect of the user's trade over the market price of an underlying asset pair.

It is in direct correlation with the amount of liquidity in the pool.

It can be simply measured by the percentage volume of the user's trade with the base reference of total underlying liquidity in the pool price impact can be especially high for illiquid markets/pairs, and may cause a trader to lose a significant portion of their funds.

### Impermanent loss risks :

This is a phenomenon that can occur in decentralized finance (DeFi) platforms that use Automated Market Maker (AMM) algorithms. It refers to the loss in value that liquidity providers experience when the price of the tokens in a liquidity pool changes.

IL example

For example, let's say Alice has deposited equal amounts of ETH and USDC into a liquidity pool to provide liquidity. The initial value of the pool is \$100,000 with \$50,000 in ETH and \$50,000 in USDC.

A few days later, the price of ETH increased relative to USDC. As a result, the value of the pool increases to \$120,000, with \$60,000 in ETH and \$60,000 in USDC. However, Alice's share of the pool is still worth \$50,000. This means that she has experienced an impermanent loss of \$10,000, despite the overall value of the pool increasing.

In this scenario, Alice's impermanent loss was caused by the change in the price of the tokens in the pool. As the price of ETH increased relative to USDC, the relative weight of ETH in the pool increased, causing Alice's share of the pool to decrease in value.

It's important to note that impermanent loss is a normal part of providing liquidity in AMM pools and can be mitigated by carefully considering the tokens and market conditions before providing liquidity

## RISKS



## Mechanics :

### Yield farming mechanics :

Yield farming on the Tyche DEX involves earning rewards in the form of TYCHE tokens by staking (locking) certain cryptocurrency assets in the liquidity pools on the exchange.

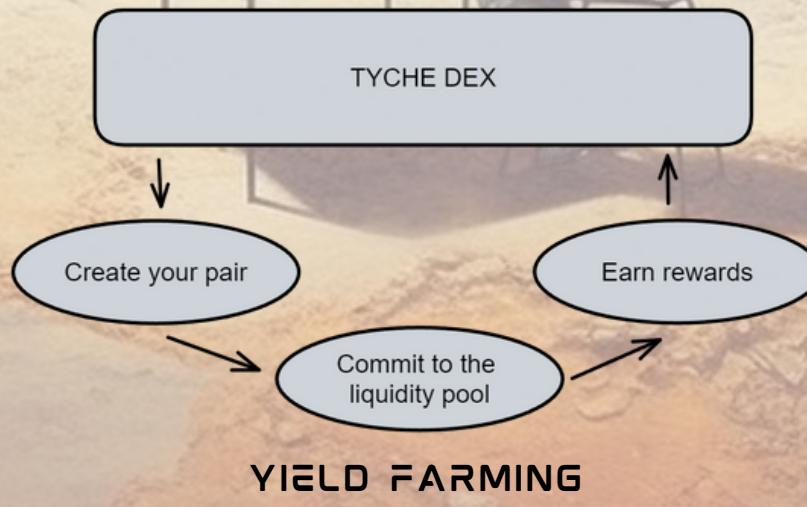
Liquidity pools are a collection of funds provided by liquidity providers (LPs) for users to trade against, and in return, LPs earn a portion of the transaction fees as rewards.

To participate in yield farming on the Tyche DEX, users can deposit their cryptocurrency assets into the liquidity pools of their choice. By doing so, they become liquidity providers and earn a portion of the transaction fees generated by trades on the exchange.

In addition, they will also earn TYCHE tokens as rewards for their contribution to the liquidity pool.

The amount of TYCHE tokens earned through yield farming on the Tyche DEX depends on the amount of liquidity provided, the duration of staking, and the prevailing market conditions.

The reward distribution is based on a proportional allocation system, which means that the more liquidity a user provides, the greater their share of the rewards.





## Mechanics :

Yield farming on the TYCHE DEX is an excellent way for users to earn additional income on their cryptocurrency holdings.

However, it is essential to understand the risks associated with yield farming, such as price volatility, impermanent loss, and smart contract risk, before participating.

As such, we encourage our users to do their due diligence and make informed decisions when it comes to yield farming on our platform tokens and pools

**At the launch of TYCHE DEX the expected pools on Zksync are :**

- ETH:USDC
- ETH:USDT
- USDC:USDT

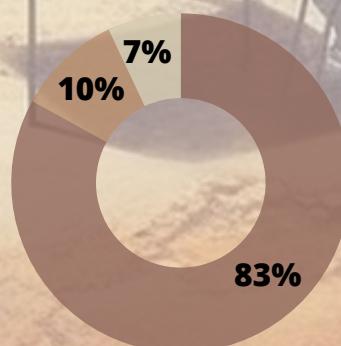
**After TGE :**

- TYCHE:USDC
- TYCHE:ETH
- TYCHE:USDT

**Swap fees**

The swap fees generated through the trade will go to following parties.

- Liquidity providers 83%
- Team 10%
- NFT owners 7%





## Mechanics :

### TYCHE DEX Aggregator:

Tyche Dex aggregator aims to provide its traders with the opportunity to source liquidity from across various DEXs deployed on zkSync.

To solve the issues of low liquidity pools on the standalone AMMs.  
With the existing market conditions, most of the pools in any single dex are unusable due to high price impact.

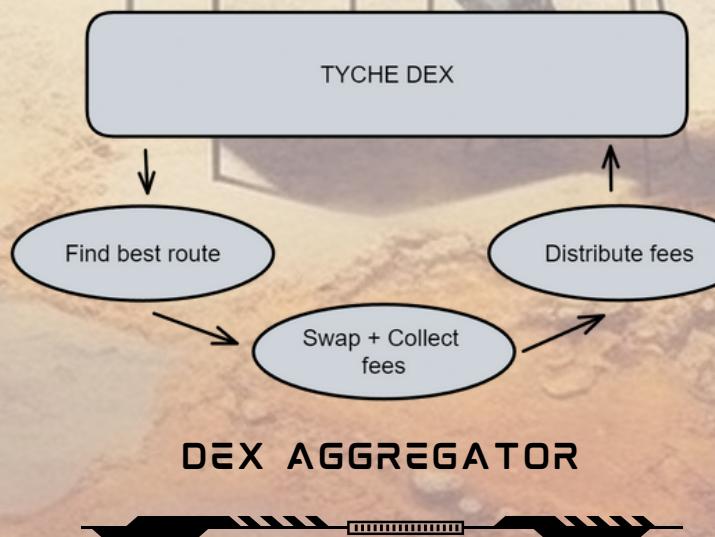
But together these pools will be useful through the TYCHE DEX aggregator.

A DEX aggregator provides the best value possible for a swap, rather than traders having to check manually across each DEX, which can be time-consuming and ineffective.

Tyche DEX aggregator will source liquidity from different DEXs on zkSync and thus offer users better token swap rates than they could get on any single DEX including Tyche Dex.

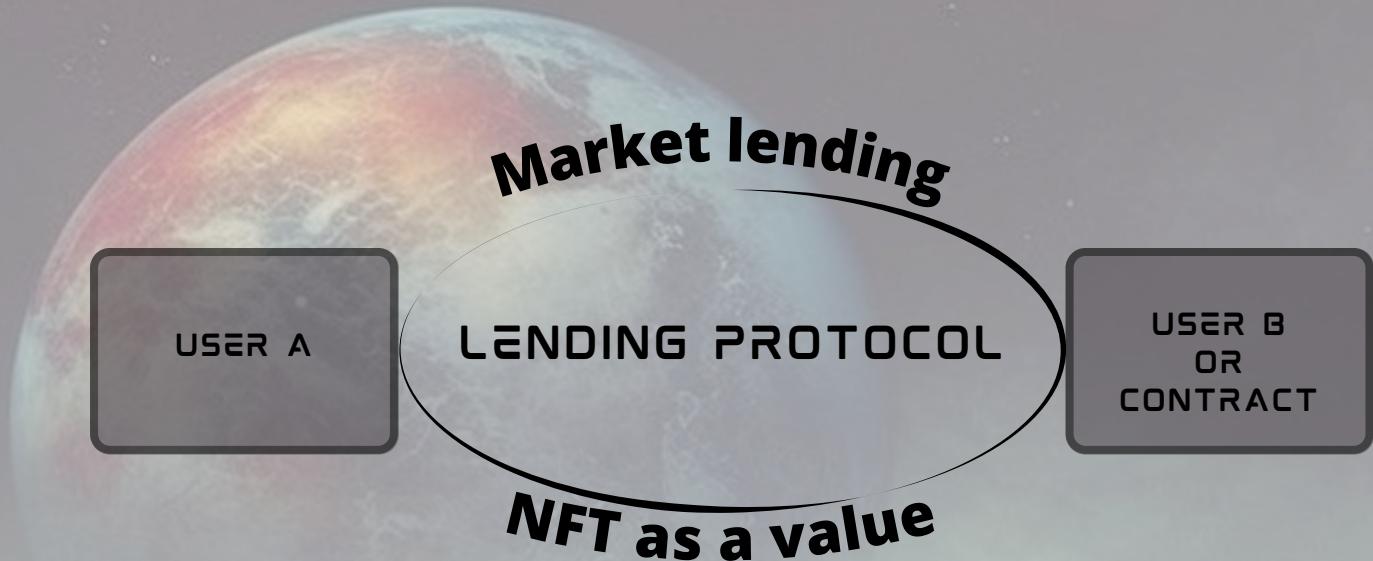
This will provide a single point of entry for traders and easy access to various trading pools using a single dashboard across the available platforms, allowing to optimize slippage, swap fees, and token prices to benefit Tyche users.

Tyche Aggregator functionality is directly referenced from the 1-inch dex aggregator.





## Mechanics :



The prime feature of the TYCHE protocol is its NFT lending protocol, where users will be able to borrow Crypto Assets from the protocol against their NFT as collateral.

Your NFT, due to its rarity or because you are invested in the project and not ready to sell it, typically becomes an illiquid asset.

At best, you may be offered to stake it for additional returns.

With our Lending protocol, we will offer you the option to lend your NFT and thus benefit from additional revenue through Lending, while also allowing you to borrow \$TYCHE against your NFT and take advantage of DeFi.

Creating again another utility to our \$TYCHE token

NFT LENDING PLATFORM



## Mechanics :

The prime feature of the TYCHE protocol is its NFT lending protocol, where users will be able to borrow the Crypto Assets from the protocol against their NFT as collateral.

### Classic Collateral:

In the financial world is a valuable asset that a borrower pledges as security for a loan.

When a home buyer obtains a mortgage, the home serves as the collateral for the loan. In the centralized/decentralized lending platforms, you can borrow funds against your Asset class cryptocurrencies.

A loan that is secured by collateral comes with a lower interest rate than an unsecured loan. In the event of a default/liquidation, a lender will seize the asset.

### NFT as collateral :

In the TYCHE NFLP (Non-fungible lending protocol) the protocol will allow users to pledge their whitelisted NFTs for the debt position.



NFT AS COLLATERAL



## Mechanics :

### P2P lending (peer-to-peer) :

Peer-to-peer (P2P) lending enables individuals to obtain loans directly from other individuals, cutting out the financial institution as the middleman.

DApps that facilitate P2P lending have greatly increased its adoption as an alternative method of financing.

Peer-to-peer (P2P) lending is a form of financial technology that allows people to lend or borrow money from one another.

P2P platforms facilitate the agreement through smart contracts. The loan rate can be higher than the platform loan as lenders set their % interest rate.

Peer-to-peer lending's biggest drawback can be the availability of funds available to borrow or lend given the market circumstances.

*Biggest problem; "It can take an extraordinary amount of time to find the right lender who values your NFT as much as you do"* You might value your 99th ranked/10000 NFT at 4x the floor price but The lender might only lend you the money basis on the floor price of that NFT.



### P2P LENDING



## Mechanics :

### Protocol lending (Peer-to-pool):

The DeFi lending process is simple.

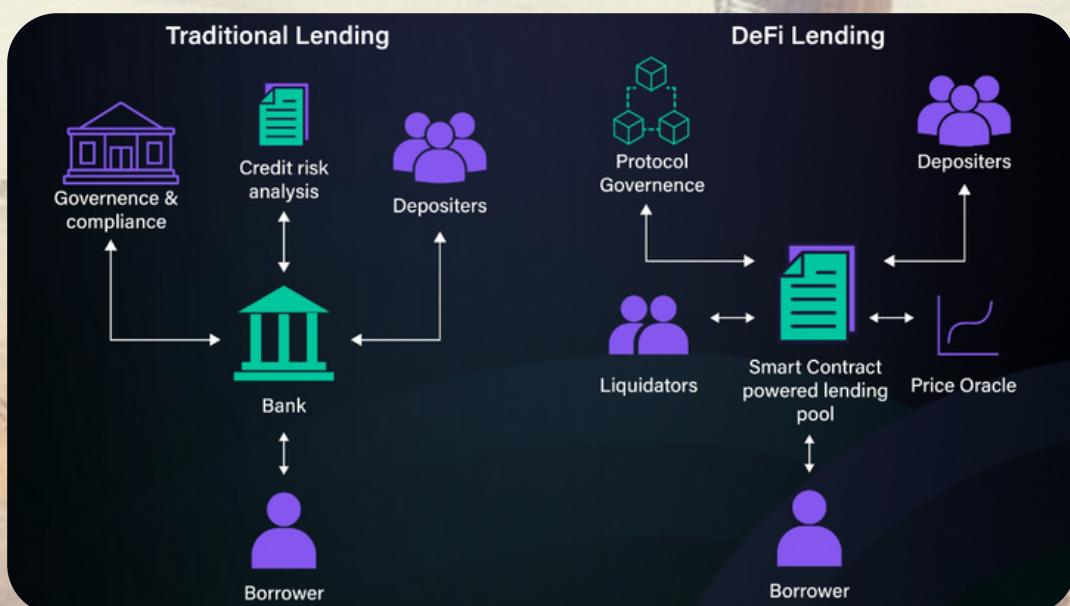
It focuses on offering crypto loans with a trustless approach. This means that the users can easily lock their crypto assets on the DeFi lending platform without worrying about intermediaries.

The borrowers can directly opt for loans from the decentralized platform with the help of P2P lending.

In addition to it, the DeFi lending protocol helps lenders to earn interest on crypto assets.

As compared to the conventional loan processing system of banks, DeFi lending enables individuals to become a lender just like a bank.

An individual can easily lend their assets to others and accrue interest on that loan. Just like the loan offices in traditional banks, DeFi lending mainly relies on lending pools where the users can add their assets to the lending pool and ensure quick distribution among borrowers through smart contracts.



### P2POOL LENDING



## Mechanics :

### Protocol lending (Peer-to-pool):

With various mechanisms for the allocation of interest to investors, it is crucial for lenders to identify the type of interest.

Borrowers also need to do their part of the research on the lending pools as each pool has a different borrowing approach.

Biggest problem; in the peer-to-pool model you have to resolve is the issue of speed of transaction as all the parameters (LTV, loan rate, funds, duration) are already set but in the case of NFT pool-to-peer what will someone do with the liquidations?

The platform might sell these NFTs (pledged as collaterals) to their native marketplace.

But this creates a gap between liquid assets poolers have pooled and the liquid assets pools withdraw at any point in time.



P2POOL LENDING



### Mathematical formulas:

$x$ = The USD value of single asset pool

$y$ = The USD value pool has withdrawn against their NFTs

$k$ = liquidations

$a$ = liquid pledged assets

$c$ = NFT (non-liquid assets)

At any point of time the pool where there has been no lending transaction should be

$x=y$

At any point of time the poll where there has been lending transaction should be

$x=(x-y)+a$

But in the NFT peer-to-pool lending the equation will be

$x=(x-y-k)+c$

In the ideal scenario  $(x-y-k)+c > (x-y)+a$

\*\*\*But c is always a risk in the equation.

The equation  $x = y$  represents the value of a single asset pool in USD and the value that has been withdrawn from the pool against their non-liquid assets (NFTs). The equation is used to describe the situation where there has been no lending transaction in the pool.

In the case where there has been a lending transaction, the equation  $x = (x - y) + a$  is used. Here, "a" represents the liquid pledged assets, which are assets that have been pledged as collateral in a lending transaction. This equation accounts for the change in the value of the pool due to the lending transaction.

P2POOL LENDING



### Mathematical formulas:

In the case of NFT peer-to-pool lending, the equation  $x = (x - y - k) + c$  is used, where "c" represents the non-liquid assets (NFTs) and "k" represents liquidations, which are the process of selling pledged assets to repay a loan in case of default.

This equation takes into account both the lending transaction and the risk of liquidation.

In the ideal scenario,  $(x - y - k) + c$  should be greater than  $(x - y) + a$ , indicating that the value of the pool has increased due to the lending transaction and the presence of non-liquid assets.

However, it's important to note that "c" (the non-liquid assets) is always a risk in the equation and can lead to a decrease in the value of the pool.

### Equation of “risk” :

The equation to describe the risk in NFT peer-to-pool lending can be represented as:

$$\text{Risk} = (x - y - k) + c - (x - y) - a$$

$x$  = USD value of the single asset pool

$y$  = USD value that has been withdrawn from the pool against NFTs

$k$  = liquidations

$a$  = liquid pledged assets

$c$  = non-liquid assets (NFTs).

The difference between the right-hand side and the left-hand side of the equation represents the risk associated with the NFT peer-to-pool lending scenario.



### Mathematical formulas:

#### The equation for “liquidation”:

*The formula for liquidation can be represented as:*

$$\text{Liquidation} = k = a - (x - y - c)$$

*k = liquidations*

*a = liquid pledged assets*

*x = USD value of the single asset pool*

*y = USD value that has been withdrawn from the pool against NFTs* *c = represents non-liquid assets (NFTs).*

*The equation calculates the amount of liquid pledged assets that must be sold in order to repay a loan in case of default.*

*If the value of the right-hand side of the equation becomes negative, it indicates that the pledged assets are insufficient to repay the loan, triggering a liquidation.*

#### Finding "c":

*Given the equation:  $x = (x - y - k) + c$*

*We can isolate "c" by rearranging the equation as follows:*

$$c = x - (x - y - k)$$

$$c = x - x + y + k$$

$$c = y + k$$

*c = The sum of the USD value that has been withdrawn from the pool against NFTs (y) and the amount of liquidations (k).*

### LIQUIDATION MODEL



### Mathematical formulas:

#### Example of liquidation:

Let's assume that the current value of the single asset pool is **1,000 USD** and the USD value that has been withdrawn from the pool against NFTs is **200 USD**. Additionally, let's assume that an **NFT worth 100 USD** has been pledged as collateral in a lending transaction.

If the value of the pool drops below a certain threshold, a liquidation process is triggered to sell the pledged NFT to repay the loan.

In this case, let's assume that the value of the pool drops to **800 USD**.

#### The formula for liquidation is:

$$\text{Liquidation} = k = a - (x - y - c)$$

$k$  = liquidations

$a$  = liquid pledged assets

$x$  = USD value of the single asset pool

$y$  = USD value that has been withdrawn from the pool against NFTs

$c$  = non-liquid assets (NFTs).

Plugging in the values, we get:

$$k = 100 - (800 - 200 - 100)$$

$$k = 100 - (800 - 300)$$

$$k = 100 - 500$$

$$k = -400$$

Since the value of "k" is negative, it indicates that the pledged NFT is not sufficient to repay the loan, and the liquidation process will sell the NFT to repay the loan. In this case, the **NFT worth 100 USD** will be sold to repay the loan, effectively decreasing the value of the pool to 700 USD.

### LIQUIDATION EXAMPLE



### Mathematical formulas:

#### RISK equation in protocol loan model redefined:

$$\text{Risk} = (V_i - V_c) / V_i$$

$V_i$  = Initial value of NFT collateral

$V_c$  = Current value of NFT collateral

#### Liquidation formula:

$$\text{Liquidation Price} = (B + P) / (Q - L)$$

$B$  = Total borrowed amount

$P$  = Liquidation penalty

$Q$  = Quantity of collateral (represented in the value of NFT collateral)

$L$  = Discount applied during liquidation (usually a percentage)

#### here is a hypothetical example:

Let's say the current market value of the NFT collateral is \$1,000, and the borrower has borrowed \$500. The liquidation penalty is 5% of the borrowed amount, or \$25. The platform decides to apply a 10% discount during liquidation to incentivize buyers to purchase the collateral quickly.

Using the liquidation formula, we can calculate the liquidation price:

$$\text{Liquidation Price} = (B + P) / (Q - L)$$

$$\text{Liquidation Price} = (\$500 + \$25) / (\$1,000 - 10\% * \$1,000)$$

$$\text{Liquidation Price} = \$525 / \$900$$

$$\text{Liquidation Price} = \$0.5833 \text{ per dollar of NFT collateral}$$

The discount  $L$  applied during liquidation is 10%, which represents a \$100 reduction in the value of the NFT collateral during liquidation.

### LIQUIDATION RISKS MODEL



### Mathematical formulas:

#### Tyche NFT lending model :

The Tyche NFT lending model is a hybrid model designed in a way to protect borrowers and lenders and solve the problems of both peer-to-peer and peer-to-pool problems.

Where a borrower will not wait for the lender for funds on the lender's position and we will solve this equation  $(x-y-k)+c > (x-y)+a$

An example :

Suppose we have a single asset pool that consists of USDC and NFTs.

The value of the pool is \$100 (x), and \$50 (y) has been withdrawn against the NFTs. The value of the liquidated assets (a) is \$40 and the value of the NFTs (c) is \$60.

The equation  $(x - y - k) + c$  represents the value of the pool after liquidations (k), assuming the NFTs can be sold to cover the loss.

The equation  $(x - y) + a$  represents the value of the pool after liquidations if only the liquid assets (a) are used to cover the loss.

So,

$$(x - y - k) + c = (100 - 50 - k) + 60 = 60 + 60 - k = 120 - k$$

$$(x - y) + a = (100 - 50) + 40 = 90$$

Now, if we substitute the values, we get

$$120 - k > 90$$

$$k < 30$$

Since k represents the number of liquidations, a value of fewer than 30 means that there are sufficient NFTs to cover the losses, even in the event of liquidation. So, in this hypothetical example, the equation  $(x - y - k) + c > (x - y) + a$  holds true, indicating that the value of the NFTs is sufficient to repay the loan, even in the event of liquidation.

NFT LENDING MODEL



### Mathematical formulas:

#### Lending platform solvency:

$$V_t \geq (B + P) / (1 - L)$$

Where:

$V_t$  = Total value of the NFT collateral held by the platform

$B$  = Total amount borrowed by borrowers

$P$  = Total amount of liquidation penalties owed by borrowers

$L$  = Discount applied to the liquidation price, expressed as a decimal between 0 and 1

This expression represents the minimum amount of NFT collateral that the platform needs to hold in order to ensure that it can cover all outstanding loans and liquidation penalties, even if all collateral is liquidated at the discounted liquidation price.

If the value of the NFT collateral held by the platform falls below this minimum threshold, the platform may become insolvent and unable to meet its obligations to borrowers and lenders.



LENDING PLATFORM  
SOLVENCY



### Mathematical formulas:

### Simplified Tyche NFT lending model:

1. Borrowers will be able to borrow against their whitelisted NFTs instantly from the pool.
2. The first pool of Tyche tokens will be funded by the protocol (specific allocation in the tokenomics)
3. LTV will be decided by the governance vote, governed by Tyche DAO. (LTV will be less than the floor price and will change accordingly)
4. The borrower gets a Tyche loan against their NFT collateral.
5. Tyche protocol will list this NFT in the p2p lending market.
6. If another peer buys the liability they will start earning the % rate until now the protocol was earning.
7. But it will remain in the p2p lending market, someone wants to buy the liability at better rates. It will be an option.

In case no one buys the liability, and liquidation is approaching, the protocol will list the NFT on the native marketplace of that NFT, at 1.5X of LTV and less than the floor. To liquidate the position.

### **SIMPLIFIED LENDING MODEL**



## Mechanics :

Overall, the simplified Tyche NFT lending model provides an efficient and secure way for borrowers to access funds quickly and for lenders to earn a return on their investment.

With its innovative features and strong governance structure, the Tyche protocol is well-positioned to transform the lending industry and bring greater efficiency to the market :

- **Instant borrowing:** Borrowers can borrow against their whitelisted NFTs instantly from the pool. This eliminates the need for lengthy application processes and provides borrowers with quick access to funds.
- **Tyche token pool:** The first pool of Tyche tokens will be funded by the protocol, which means that borrowers can benefit from this funding allocation while ensuring that the liquidity of the platform remains stable.
- **Governance vote:** The loan-to-value (LTV) will be decided by the governance vote, which is governed by the Tyche DAO. This ensures that the LTV remains within a specific range and adjusts according to market conditions, providing greater stability to the platform.
- **Collateralized loan:** The borrower gets a Tyche loan against their NFT collateral, which ensures that the loan is fully collateralized and reduces the risk for lenders.
- **P2P lending market:** Tyche protocol will list the NFT collateral in the peer-to-peer (P2P) lending market, which provides an opportunity for other users to purchase the liability and earn the interest rate.
- **Native marketplace liquidation:** In case no one buys the liability, and liquidation is approaching, the protocol will list the NFT on the native marketplace of that NFT, at 1.5X of LTV and less than the floor. To liquidate the position. This ensures that the platform remains stable and provides protection for lenders in case of default.

### SIMPLIFIED LENDING MODEL



The purpose of a marketplace is no longer a question; it enables the exchange of NFTs between traders based on an intrinsic value linked to scarcity or the unique utility of each collection.

This scarcity and unique utility does not allow the use of an AMM to buy and sell NFTs at a fair price based on rarity, thereby allowing experienced traders in the ecosystem to discover, buy, and sell NFTs based on their unique properties.

However, this scarcity-based exchange function is essential in the NFT world, which is why we need a marketplace

Therefore, it is crucial for us to have a similar tool where our TYCHE token once again has a significant role to play in the buying and selling of NFTs.

NFT MARKETPLACE



**Staking incentive**

USER A

**STAKING MODULE**

CONTRACT

**NFT as a farming value**

While staking is a well-known product within our ecosystem, NFT staking is not a very used mechanism to provide deeper utility to Holders.

By using your NFT you will be able to earn rewards based on \$TYCHE token but also other tokens from our partner project.

This staking platform has been designed to give you the best opportunities within our ecosystem by farming tokens from different blockchains / Projects with your TYCHE NFT.

This platform has also been designed to allow other NFT projects to bring value to their owners by distributing them Airdrops / Incentive without the need of building complex infrastructure on-chain.

**NFT MARKETPLACE**



## NFT Staking:

### Tyche NFT staking platform:

Tyche NFT Tyche Protocol is a cutting-edge crypto project that aims to revolutionize the NFT ecosystem.

As part of our diverse product offerings, we are proud to introduce the TYCHE NFT Staking Platform.

This platform holds immense significance as it enables the staking of Tyche NFTs while also providing the ability to whitelist other projects, fostering collaboration and expansion within the NFT space.

Furthermore, our innovative dual incentive system ensures that Tyche NFT holders earn multiple tokens while staking their NFTs.

Tyche Protocol also extends incentives to other whitelisted NFT collections, creating a mutually beneficial environment.

Our commitment to innovation is further reflected in our upcoming NFT lending platform, which seamlessly aligns with the staking platform.

We are thrilled to announce that the staking platform is scheduled to go live in June 2023.

### NFT Staking Platform use cases:

The TYCHE NFT Staking Platform serves as a secure and efficient solution for staking Tyche NFTs.

Through this platform, Tyche NFT holders can participate in staking, earning lucrative rewards while contributing to the overall network security and decentralization.

### Whitelisting Capability:

One of the distinguishing features of the TYCHE NFT Staking Platform is its ability to whitelist other projects. By extending this privilege to external NFT collections, we foster collaboration and open new avenues for growth within the NFT ecosystem. This mutually beneficial approach allows for cross-pollination of ideas and increased exposure for both Tyche Protocol and the whitelisted projects.

TYCHE NFT STAKING



## NFT Staking:

### Dual Incentive Mechanism:

To further enhance the value proposition of the TYCHE NFT Staking Platform, we have implemented a unique dual incentive mechanism.

Tyche NFT holders who stake their NFTs not only earn rewards in the form of Tyche tokens but also receive additional tokens from partner projects.

This innovative approach maximizes the earning potential for participants, making staking Tyche NFTs a highly attractive proposition.

### Expansion of Incentives:

Beyond Tyche NFTs, Tyche Protocol aims to incentivize other whitelisted NFT collections.

By providing these collections access to the TYCHE NFT Staking Platform, we create a thriving ecosystem where diverse projects can collaborate, share resources, and mutually benefit from the platform's rewards.

### Synergy with the NFT Lending Platform:

In line with our commitment to continuous innovation, we are developing an NFT lending platform that seamlessly aligns with the TYCHE NFT Staking Platform.

This integration will unlock additional avenues for Tyche NFT holders to leverage their assets and explore new possibilities within the Tyche Protocol ecosystem.

TYCHE NFT STAKING



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NFT AS GOVERNANCE



## Mechanics :

### Dex Liquidity as value

Our DEX will enable us to have sufficient liquidity to ensure the proper functioning of the lending platform.

The \$TYCHE token will serve as an incentive for the DEX, as well as the primary liquidity for trading.

### Marketplace Scarcity as value

Our marketplace will create a trading zone for NFT experts.

\$TYCHE will serve as a payment method for your NFTs, providing payment to creators and acting as an incentive.

### Lending NFT as value

Our lending platform will finally allow you to make your NFTs liquid by taking out a loan.

Once you have obtained your loan in \$TYCHE token, you can use them for DeFi on our Dex or to buy other NFTs.

### Staking NFT as value

Your NFTs will be your staking vector, allowing you to farm \$TYCHE tokens and \$XYZ tokens from partner projects.

### NFT Ownership as value

Your NFTs will be your governance power, allowing you to help evolve the TYCHE project with the TYCHE team and have a direct impact on the \$TYCHE token.

## MECHANICS



## Tyche NFT:

### Tyche NFT:

Tyche NFT is a unique digital asset that represents the goddess of luck and fortune in the world of crypto.

Inspired by Greek mythology, Tyche NFTs are limited edition tokens that are designed to be collected and traded by fans of the classics, art collectors, and crypto enthusiasts alike.

Key benefits of Tyche NFTs are :

- **Staking utility**, which enables holders to earn additional rewards by staking their tokens in a Tyche staking pool (\$TYCHE + \$XYZ from other projects)
- **Lending utility**, which enables holders to earn additional rewards by staking their tokens in Tyche Lending platform and borrow \$TYCHE against their NFT
- **Revenue sharing**, each Dapp will generate fees and our NFT holders will also collect part of the fees from all our Dapps on every chains.
- **Airdrop allocation**, Tyche NFT holders will collect a substancial part of our airdrop.

Overall, Tyche NFTs offers a unique combination of art, mythology, and crypto, making them an attractive investment opportunity for those who value both the aesthetic and financial potential of digital assets.

Whether you are a collector, investor, or simply a fan of Greek mythology, Tyche NFTs are a one-of-a-kind way to engage with the world of crypto and potentially earn rewards along the way

TYCHE NFT



## Tyche NFT:

### The Evmos Collection:

The Tyche Evmos Collection comprises 5,000 unique and meticulously crafted NFTs.

These digital assets embody the essence of Tyche's creative vision and are designed to captivate NFT enthusiasts within the Evmos ecosystem.

We are delighted to announce that the Evmos collection has been successfully sold, demonstrating the high demand for Tyche NFTs and the trust placed in our brand.

### The zkSync Collection:

Parallel to the Evmos collection, Tyche has developed a distinct NFT collection specifically tailored for the zkSync platform.

With 5,000 pieces, these NFTs will offer a whole new range of immersive experiences to zkSync users.

We are currently in the minting process, ensuring that each NFT meets Tyche's unparalleled standards of quality and innovation.



TYCHE NFT





## Tyche NFT:

### Expansion of Possibilities:

By releasing Tyche NFT collections on both Evmos and zkSync platforms, we aim to unlock limitless possibilities for digital asset ownership and expression. Each collection presents a unique opportunity for NFT enthusiasts to engage with Tyche's visionary art and become part of an ever-growing community.

### Embracing Interoperability:

Tyche's decision to launch separate collections on Evmos and zkSync highlights our commitment to interoperability and inclusivity.

By embracing multiple platforms, we ensure that users from different ecosystems can access and enjoy the Tyche NFT experience, fostering a diverse and vibrant community.

### Community Engagement:

As Tyche continues to expand its NFT offerings, we value the active participation and feedback of our community members.

We are dedicated to creating an inclusive environment where users can share their insights, suggestions, and artistic contributions to further enrich the Tyche NFT Collection.



TYCHE NFT



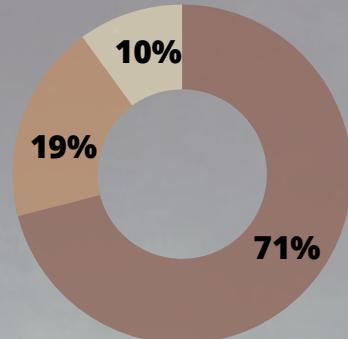


### Tyche Tokenomics :

Detailed tokenomics structure to distribute its tokens and incentivize its community :

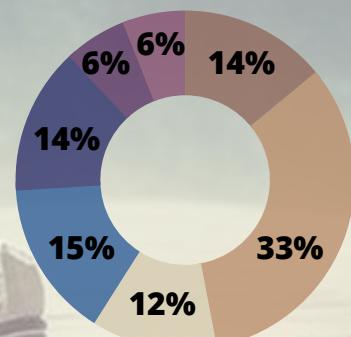
- **Initial supply 50 million \$TYCHE**

- 35.5 million airdropped phase 1 (71%)
- 9.5 million for the community pool (19%)
- 5 million for strategic funds (10%)



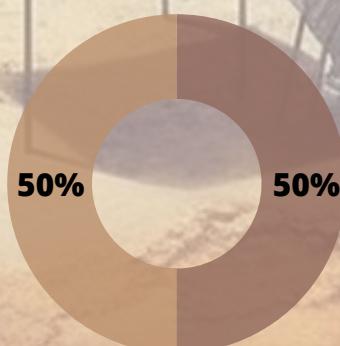
- **Max supply 500 million \$TYCHE**

- 71 million airdropped (Phase 1 & 2) (14%)
- 165 million LP incentive (33%)
- 60 million Staking rewards (12%)
- 75 million NFT lending rewards (15%)
- 70 million Team (14%)
- 30 million Community funds (6%)
- 30 million Strategic funds (6%)



- **Airdrop Distribution 71 million \$TYCHE**

- **Phase 1** : 35.5 million allocated to projects / NFT owners / Testnet participant / Zealy participant
- **Phase 2** : 35.5 million allocated to Staking platform / Dex / Lending platform users.



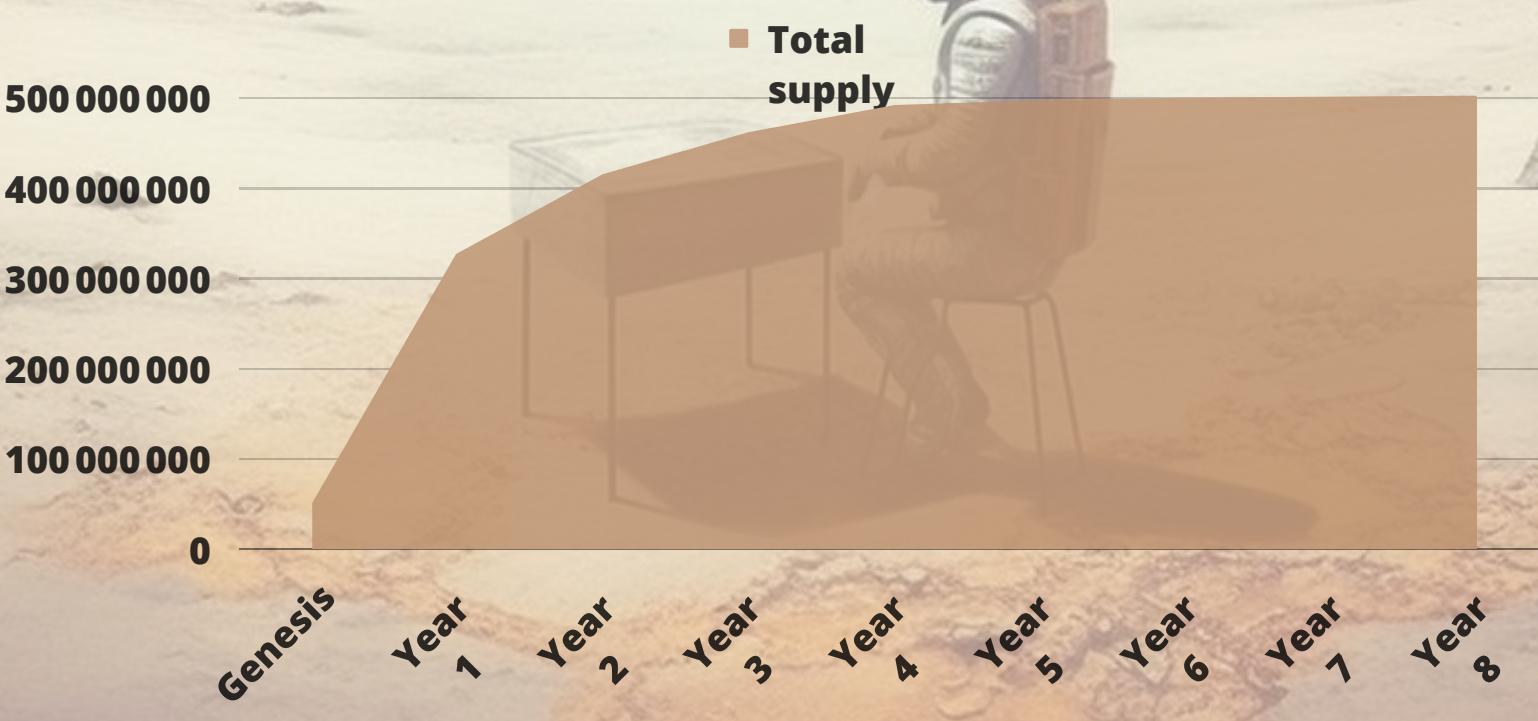
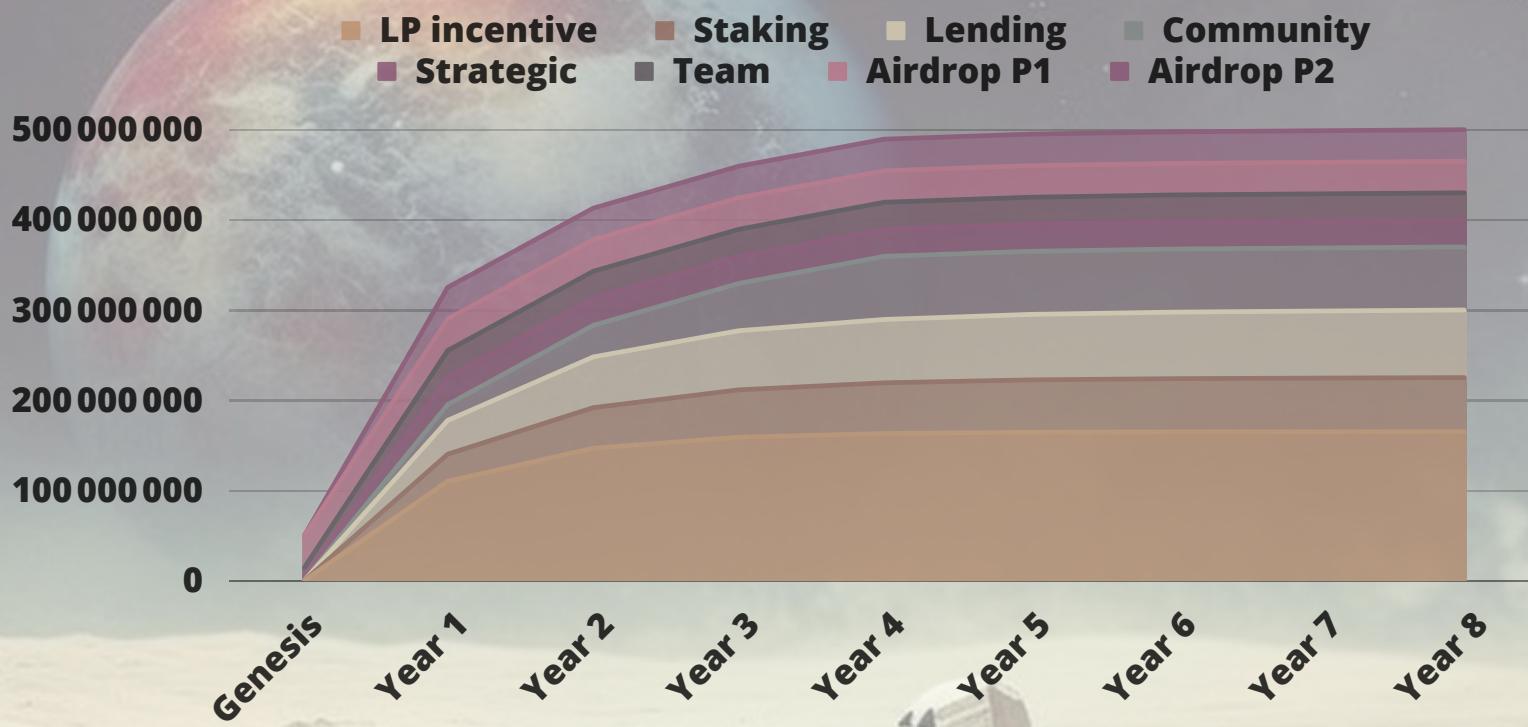
**TOKENOMIC**



## Tokenomic :

### Tyche Tokenomics :

- Supply at the end of each year



TOKENOMIC



## Roadmap

### STAGE 5

- Launch our NFT lending platform on Testnet
- Launchpad & TGE
- Airdrop distribution Phase 1

Q3  
2023

### STAGE 6

- Launch Lending platform and marketplace on mainnet
- start the distribution of airdrop phase 2

Q4  
2023

### STAGE 3

- Launch our staking platform on zksync era mainnet
- launch on-boarding airdrop phase 2

EARLY JULY  
2023

### STAGE 4

- Launch of our Dex on mainnet
- Loyalty program

AUGUST  
2023

### STAGE 1 :

- Launch Evmos testnet
- Launch Evmos NFT
- launch on-boarding airdrop phase 1

APRIL  
2023

### STAGE 2

- Launch Zksync testnet
- Launch Zksync NFT

MAY  
2023

ROADMAP UPDATED



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