

TOSU EXCHANGE

[The Next-Gen. Decentralized Exchange & Trading Platform]



WHITE PAPER

Cryptocurrency | Derivatives | Exchanges

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ABSTRACT

Tosu Exchange is a new Decentralized Exchange and Trading platform, powered by a pip order book fully On-chain and operating on Binance Smart Chain (BSC), aiming to bridge the gap between people and the cryptocurrency markets and enhance trading experiences.

In its endeavor to become the decentralized exchange and trading platform of choice, Tosu Exchange has developed a number of features that cater to all types of users while providing an easy-to-use great looking interface. Making it possible for everyone, no matter their level of knowledge and expertise, to take part in this proliferating and disrupting DeFi industry.

The platform is designed to deliver all the advantages of Decentralized Finance whilst bringing the traditional Centralized Finance experience and tools onboard. Tosu Exchange offers easy and accessible on-chain derivatives trading with high leverage, low slippage and low costs on Crypto assets and much more to come.

The team behind Tosu Exchange is setting a clear and specific vision involving meticulous planning for the development of the project.

"Our Vision is to build the most decentralized and community driven platform in the DeFi industry, where every single user plays an important part in decisional process by having an effective role in defining and shaping Tosu Exchange and its future development."

Our long-term view is what would set us apart from other startups. Guaranteeing the long term reliability of the platform and continuous benefits for POSI holders (native BEP-20 token to Tosu Exchange) are our ultimate goals.

Tosu Exchange is introducing itself as a strong actor in DeFi, planning on rapid growth, sustainable expansion and aggressive business approach. We do understand that such plans and goals require continuous innovation, high flexibility and market adaptability. Our team is ready for the challenge.

This article introduces Tosu Exchange, the new DEX platform with its features, products, advantages and development plan.

INTRODUCTION & BACKGROUND

With the proliferation of assets based on blockchain, the need to exchange these assets has significantly increased amongst counterparties. As thousands of new tokens are introduced, including the tokenization of traditional assets and commodities, this need is amplified.

Whether exchanging tokens for speculative trading motivations, or converting to access networks via their native utility tokens, the ability to exchange one crypto asset for another is foundational for the larger ecosystem.

Along with the fact that trading decentralized tokens and assets on traditional centralized exchanges (**CEXs**) fails to uphold the virtue of decentralized projects, CEX also comes with numerous risks and limitations. The three primary risks of centralized exchanges are lack of security, lack of transparency, and Lack of liquidity.

DEXs have tried to work on these issues, and in many cases have succeeded in reducing security risks by using blockchains for disintermediation. However, as DEX capability becomes crucial infrastructure for the new economy, there is substantial room for performance improvement and development.

With the growing Ecosystem and low barriers to entry, DEX platforms saw a significant increase in their number over the past few years, leaving space for creativity and innovation. User centric applications become paramount. Users demand low transaction fees, fast and secure swaps and cross-chain compatibility, since the future of decentralized finance requires interoperability as a must-have feature.

This surge and evolution included aggregating liquidity pools, smarter routing for trades, and access to multiple asset-specific order book algorithms to secure the best price and profitability for users.

In the light of the above information, the team behind Tosu Exchange decided to bring an innovative and visionary project to life.

TOSU EXCHANGE

1. Overview

Decentralized cryptocurrency exchanges offer many advantages, including anonymity and peer-to-peer transactions. But many are complex to use and hampered by low transaction volumes. As a result, clients looking for liquidity and simplicity are often forced to turn to centralized platforms, which lack proper authorization and suffer from inconvenient registration processes.

Tosu Exchange provides a solution to all that, along with a set of great features and products and aims to become the decentralized exchange and trading platform of choice.

The core features of Tosu exchange consist of on-chain **Derivatives trading** on Crypto assets as a start (with a plan to expand into other assets in the future), **Staking, Farming, NFTs, Vaults, Exchange Pro** and a unique on-chain Governance interface for holders to decide the future of the project.

2. What is Tosu Exchange Perpetual Protocol (TEPP)?

Tosu Exchange Perpetual Protocol or **(TEPP)** is the new fully Decentralized perpetual futures contract trading protocol powered by a pip Orderbook fully on-chain, operating on Binance Smart Chain (BSC), bringing on-chain derivatives to the DeFi Ecosystem.

The prices of the derivatives are set automatically by the Orderbook which are based on an underlying Index Price. The Index Price consists of the average price of an asset, according to major spot markets and their relative trading volume, provided by Chainlink Data Feeds.

2.1 How does TEPP handle an on-chain orderbook?

In the existing works, many DEXs are trying to implement a significant orderbook pattern. Several types of DEX's orderbook were introduced: fully-on chain, state channel, hybrid-orderbook or AMM. Due to the limitations of the blockchain, not many on-chain order books generated significant volume except the AMM. However, an AMM still has problems with slippage, limit order and impermanent loss while providing liquidity.

Due to the perpetual futures contract in particular, an orderbook is required to handle an efficient trading system. Hence, Tosu Exchange would like to introduce a new design of the orderbook using bit mask and pip orders. This design aims to save gas cost as much as possible.

2.2 How does it work?

In the usual order book, there is a list of ask and bid orders stored in a map object for convenient matching orders. However, due to the limitation of a smart contract working on EVM, we have to store data in an efficient way. Inside the core of TEPP, there is a matching engine called TosuManager which holds a liquidity bitmap – a map of pip and liquidity. Each price is represented by a pip, Pip is an acronym for "percentage in point" or "price interest point." A pip is the smallest price move that an exchange rate can make based on market convention.

Liquidity		-		0		0		0		0		1		0		0		0		1		0		0		0		1		1		0		0		0			
Pip																																							

In EVM (Ethereum Virtual Machine), each variable is stored in 256 bit storage. A Liquidity Bitmap is a single slot packed with 256 bits; every single bit represents a boolean value marked for whether that bit has liquidity or not. This design helps find the nearest pip that has liquidity using a bitwise operator much faster and effectively.

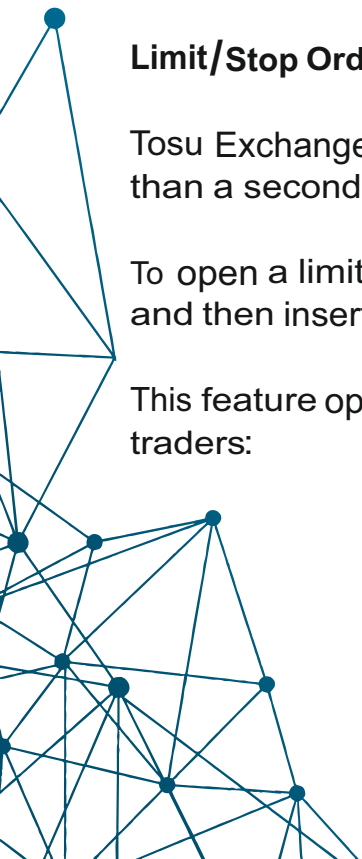
And in every pip, we store its liquidity volume and its pending orders used for matching orders.

Limit/Stop Orders

Tosu Exchange Order Book offers Limit/stop capabilities, a native function rather than a second layer or integration.

To open a limit order, the Tosu Manager simply marks the pip that has liquidity and then inserts orders in the order list and increases the pip liquidity.

This feature opens up a new room of possibilities previously unavailable to DeFi traders:



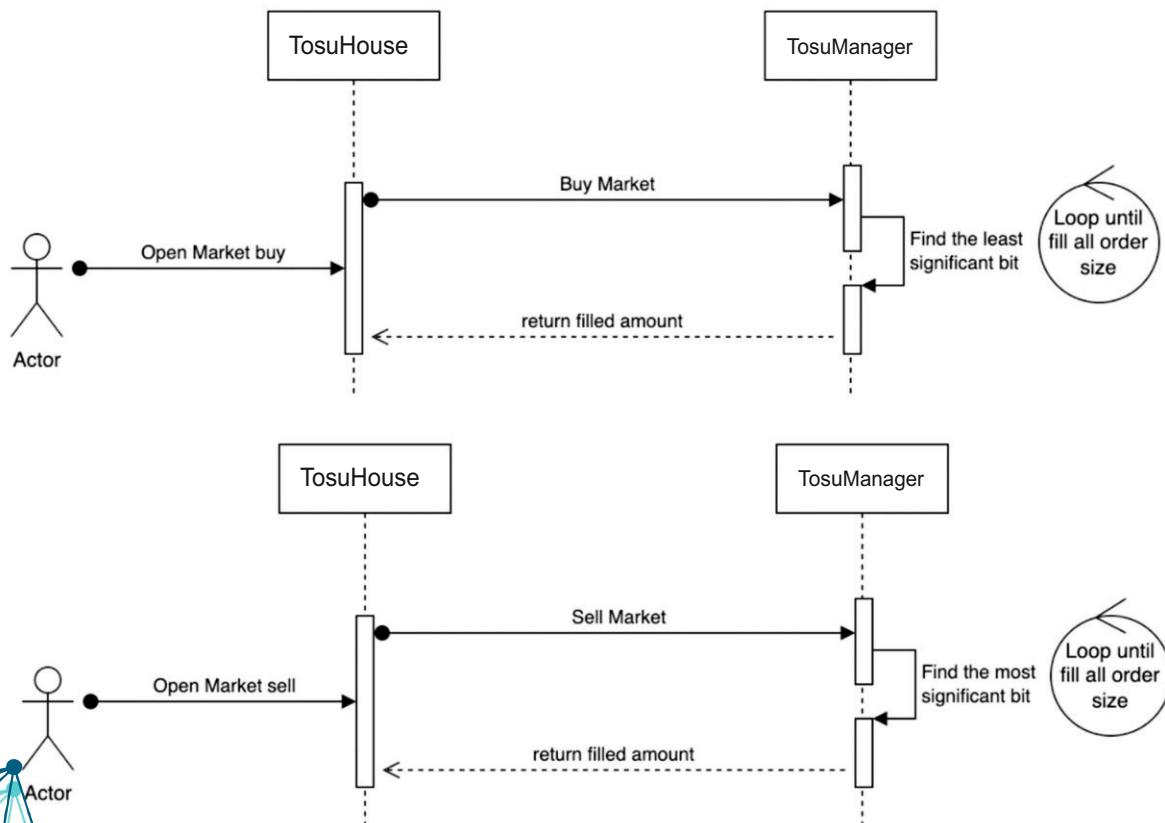
No more missed opportunities: In DeFi, asset prices can be very fluctuating and could very well move out of your targeted range. Limit Orders would automatically fill your order the moment your price range is reached.

– **No more stressful always-on monitoring:** Due to the existence of many networks in the DEX, traders must keep an eye simultaneously on multiple platforms to keep up to date with market developments and make the right placements, which can be technically impossible. Using Limit Orders across all the connected platforms means automatic swaps when the price is right.

– **No unplanned losses, less price impact:** One of the most efficient tools to control Slippage and avoid unexpected sudden change on the assets price. With Limit Orders, you get orders filled only at the price range you selected. With Stop Losses, you don't have to worry about price collapsing to zero overnight for example.

Market orders

To proceed with market orders, the Tosu Manager will find the liquidity in the liquidity bitmap. For either buy or sell orders, the Tosu Manager will find the least or most significant bit starting from the current pip (current price).



No liquidity providers needed

In conventional AMMs, liquidity is deposited by liquidity providers contributing assets to facilitate trading; the liquidity in a Tosu Manager Orderbook comes straight from the limit order. In simpler words, there is no need for liquidity providers to bring liquidity for an orderbook to work: the traders provide liquidity to each order.

This orderbook feature is a good prevention tool against impermanent loss.

Managing slippage

With the Tosu Manager Orderbook, traders are less exposed to slippage when market orders are able to fill at a certain price that the maker wants.

Funding payment

The Tosu Manager Orderbook itself acts as a self managed cash-settlement market. In order to make the Tosu Manager market price close to an underlying index price, we need to add a funding rate.

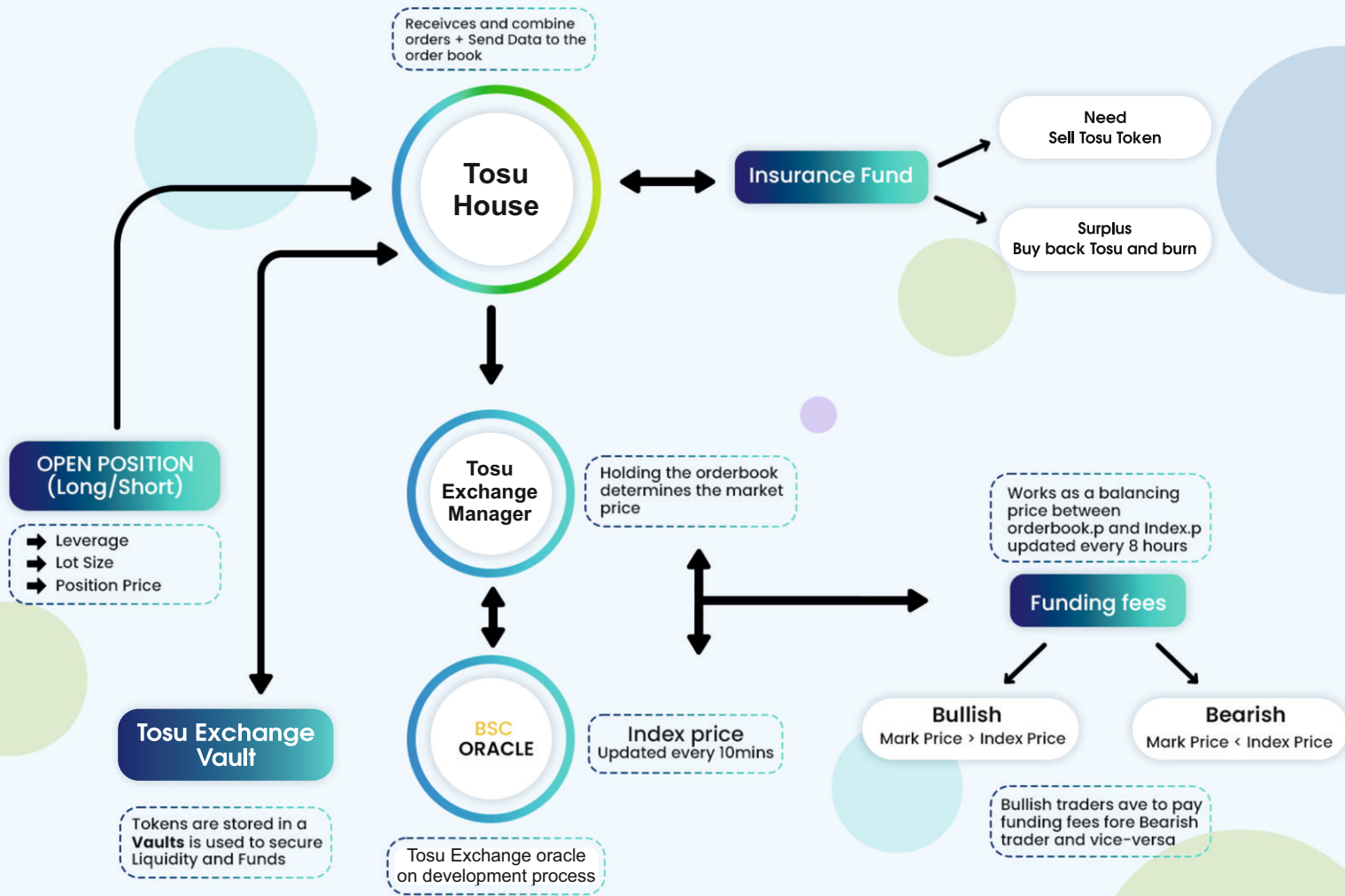
The funding payments allow bringing the market price as close as possible to the underlying index price and make the orderbook market track it periodically.

Tosu Exchange Manager will be updating the funding payment and funding rate formula every 8 hours which will allow new derivative markets to trade with the applied leverage while closely tracking an underlying index.

2.3 Trading with Tosu Exchange Protocol (TEPP)

The following diagram is describing the global functioning of Tosu Exchange's Protocol and the connections between its different components.





2.3.1 Overview

Trader sends "x" USDT to the TosuHouse on Tosu Exchange Protocol and specifies to use that amount as the margin to open a leveraged long/short position.

Upon receiving the "x" USDT, the TosuHouse deposits the funds into the Vault. After that, Tosu Exchange Protocol proceeds to the asset price update in our Order Book depending on the margin amount, position type (long or short), and the leverage.

The deposited tokens are not stored inside our Tosu House or Tosu Manager. They are drained to the Tosu Exchange Vault which interacts with the Tosu Manager by providing the necessary data to value the traded assets.

This strategy makes sure that the tokens are safe in our virtual wallet (called Vault) to prevent losses that might occur following technical issues outsiders attacks and potential system bugs in the Tosu Manager or Tosu House.

The sum of trader's gains equals other trader's losses. Which is similar to the traditional peer-to-peer futures trading mechanism.

The vault always has enough collateral to pay back every trader because one trader's gain will cancel out another trader's loss.

2.3.2 Opening a position (Long/short)

Assuming there is a BNB/USDT pair active in TEPP and the current price now is 499, Rick (market maker), Bob (market taker) both are interested in getting a short and long position.

Limit

Rick, a market maker would like to get that short position by a limit order with 1000 USDT x10 leverage at the price of 500:

1. TosuHouse checks if Risk's wallet has enough funds (1000USDTs) then transfers the amount to Tosu Vault and calls TosuManager to open a limit order by marking that the price of 500 has 50 BNBs liquidity ($1000 \times 10 / 500$).
2. Orderbook now updated by counting a bid order at the price of 500.
3. Vault's total reserve would be increased by 1000 USDT.

Market

Bob, a market taker, is interested in getting a long position with 1000 USDT x10 leverage:

1. TosuHouse checks if Bob's wallet has enough funds (1000USDTs) then transfers the amount to Tosu Vault and calls TosuManager's market trade function with the size of 10,000 (1000×10 leverage) USDT to Tosu Manager in exchange for BNB.

The BNB Tosu Manager is referred to as *BaseAsset*, and USDT position in Tosu Manager is referred to as *QuoteAsset*. According to Rick's order there is a bid order of 20.00 BNB (*BaseAsset*) at the price of 500 in Tosu Manager, based on the calculations, 10,000 USDT are traded for 20.00 BNB and the price of BNBUSDT inside Tosu Manager will increase to 500.

2. After **TosuHouse** "receives" the according amount of BNB, Bob's position would be updated to 20.00 LONG BNBUSDTs. And Rick's position would be updated to 20.00 SHORT BNBUSDTs.

3. *Vault's* total reserve would be increased by 1000 USDT after the completion of the trade.

2.3.3 Closing a position

The processes of closing and opening a short position are similar. The only difference is that the TosuHouse trades BNBUSDTs for USDTs when closing positions.

Assuming after Rick and Bob's entry order, lots of trades happened and pushed the price up to 510.

Limit

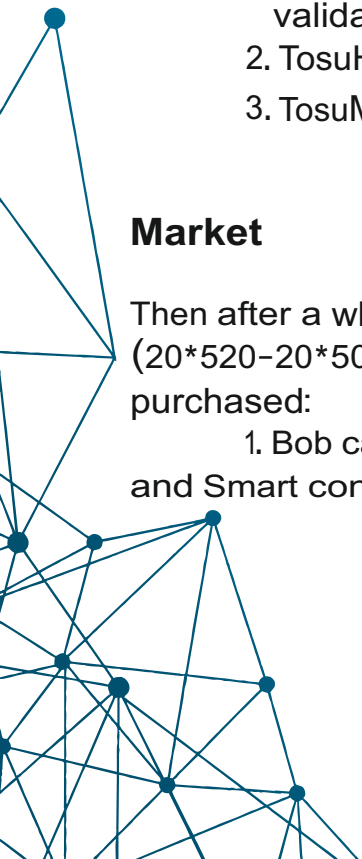
Now Rick is in loss of -200 USDT ($20 \times 500 - 20 \times 510$), and he would like to open a limit close short position in order to take stop loss at the price of 520 which he will lose for -400 USDT.

1. Rick calls the limit close position function on the TosuHouse contract validates the requirements for the closing position.
2. TosuHouse then calls TosuManager to open a buy order at the price of 520.
3. TosuManager marks the liquidity is available at the price of 520.

Market

Then after a while, the price now increased to 520, Bob is profiting of 400 USDT ($20 \times 520 - 20 \times 500$) and interested in closing the 20.00 BNBUSDTs position he purchased:

1. Bob calls the close position function on the TosuHouse smart contract, and Smart contract validates the requirements for the closing position.



2. TosuHouse then calls the market sell function with the size of 20.00 BNBs in exchange for USDTs. According to Rick's closing order, based on the calculations, Rick order is filled and 20.00 BNB are traded for 10400 USDTs.
3. After the completion of the trade, the vault will decrease by 2,000 USDT.
 - a. Bob will receive 1,400 USDT (profiting 400 USDT)
 - b. Rick will receive 600 USDT (losing -400 USDT)

Note: Due to the limitation of the EVM contract, Rick needs to claim the fund manually after the limit close order is fulfilled avoiding Bob having to pay a high gas fee.

2.3.4 Insurance Fund

The insurance fund is a key part of any exchange that allows leveraged trading. It plays a large role in cryptocurrency derivatives exchanges, both centralized and decentralized. The role of the such fund is to insure a smooth trading experience, even when markets are illiquid or experiencing extreme volatility.

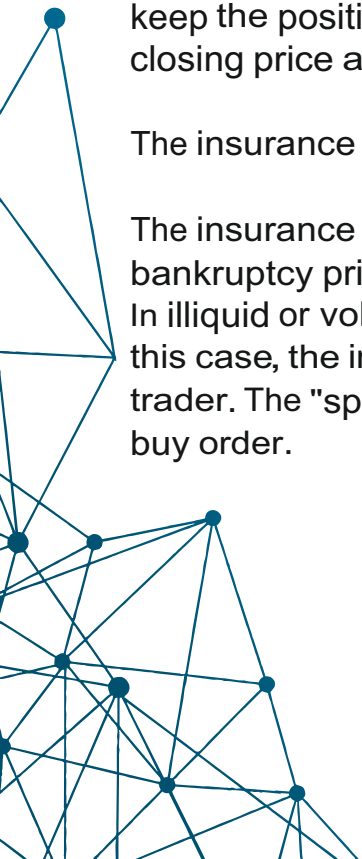
There are three important figures to keep in mind to understand why leveraged trading requires an insurance fund: The liquidation price, the bankruptcy price and the closing price.

In a healthy market, with many buyers and sellers, and low slippage, A position will be partially liquidated before it passes its "bankruptcy" price, and the position will be partially sold below its liquidation price, but above its bankruptcy price. (Partial liquidation prevents a user's position from suddenly getting liquidated by selling an amount of the position, after the partial liquidation, the user can decide whether to keep the position or not). The insurance fund receives the difference between the closing price and the bankruptcy price.

The insurance fund grows by = Closing price - Bankruptcy price

The insurance fund gains capital on liquidated longs when closing price > bankruptcy price. The opposite holds true for liquidated shorts.

In illiquid or volatile markets, a position could be sold below its bankruptcy price. In this case, the insurance fund loses money in order to pay the counterparty winning trader. The "spread" is the difference between the lowest sell order and the highest buy order.



The insurance fund loses capital on liquidated longs when the closing price < bankruptcy price . The opposite holds true for liquidated shorts.

In short, capitalizing the insurance fund is a shared cost for all traders who experience liquidations. In return, traders have the peace of mind knowing that they will always be able to receive their deserved profits.

The Insurance Fund keeps a certain amount in reserve to pay the "spread" in case of losses. When the Insurance Fund's balance passes the reserve, it will use the residual amount to buy back and burn TOSU tokens.

In case the Insurance Fund does not have enough funds to pay the "spread", it will mint TOSU token by its own and sell at the market price to make the liquidity for traders.

The reserve amount which would be held by the Insurance Fund can be voted for by the community and can change over time.

3. Tosu Exchange Token (TOSU)

3.1 What is TOSU ? – A Token for the Community!

TOSU is Tosu Exchange's native BEP20 token empowering its ecosystem.

In addition to being a utility token and providing liquidity and trading incentives, TOSU token is designed to facilitate and incite the decentralized governance of the protocol. As such, holders of TOSU tokens accrue voting rights proportional to their holdings

A Deflationary token:

Controlling the price of TOSU as well as the total circulating supply of tokens will be our top priority. Tosu Exchange's team is implementing several anti-inflation measures to keep TOSU stable, encourage holding and ensure the best benefits of the Tosu community.

The measures include **Anti-whale** to prevent price manipulation, set a **harvest lock up period** to prevent farming arbitrage bots from constantly harvesting and dumping in addition to constant buying back and burning of TOSU tokens and reducing block emission.

Tosu Exchange will be running highly cost-effective incentive programs and initiatives to help facilitate and ensure the continuous growth of the platform and the TOSU community. In the meantime, the TOSU token will be the perfect vehicle for encapsulating and representing the value of the Tosu Exchange's economy and ecosystem, and the collective value of the platform will be shared equitably and very generously with our loyal supporters.

As outlined in Tosu Exchange's token distribution (Tokenomics), 80% of the TOSU total token supply is reserved for the community. This is a substantial proportion and amount of tokens and it is hard to plan out all the incentive programs at first. As our platform continues to grow and users number to increase and more product features mature, the subject of value encapsulation will become more challenging.

This is why the Tosu Exchange's design is open to constructive suggestions and feedback from everyone, as we seek to grow alongside the community.

The Total supply of TOSU tokens will be set at **10 Billion** tokens, starting with an emission rate of 5 TOSU per block.

- **1% Airdrop**

100,000,000 TOSU tokens were distributed on the Airdrop as a first step. Participants registered in the whitelist lottery and took part in the exclusive public sale.

- **5% Public Sale**

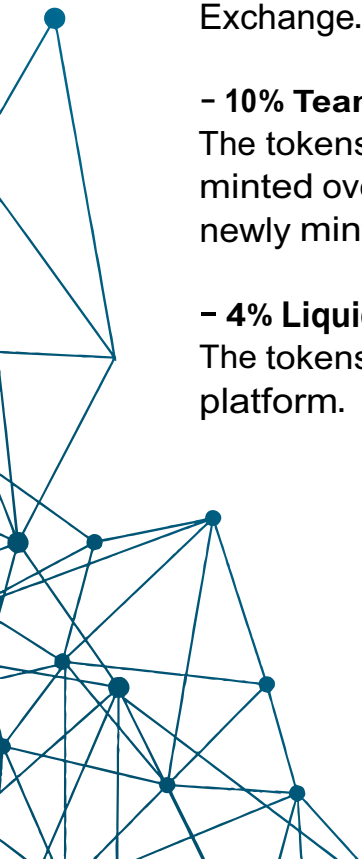
500,000,000 TOSU tokens were available for public sale. The generated funds will be deployed to add Liquidity and support the Marketing strategy of Tosu Exchange.

- **10% Team and Advisors**

The tokens will NOT be available to the team immediately but will rather be minted over time. Tosu Exchange's team will retain a position of 10% of any newly minted token ensuring a community driven and fair launch.

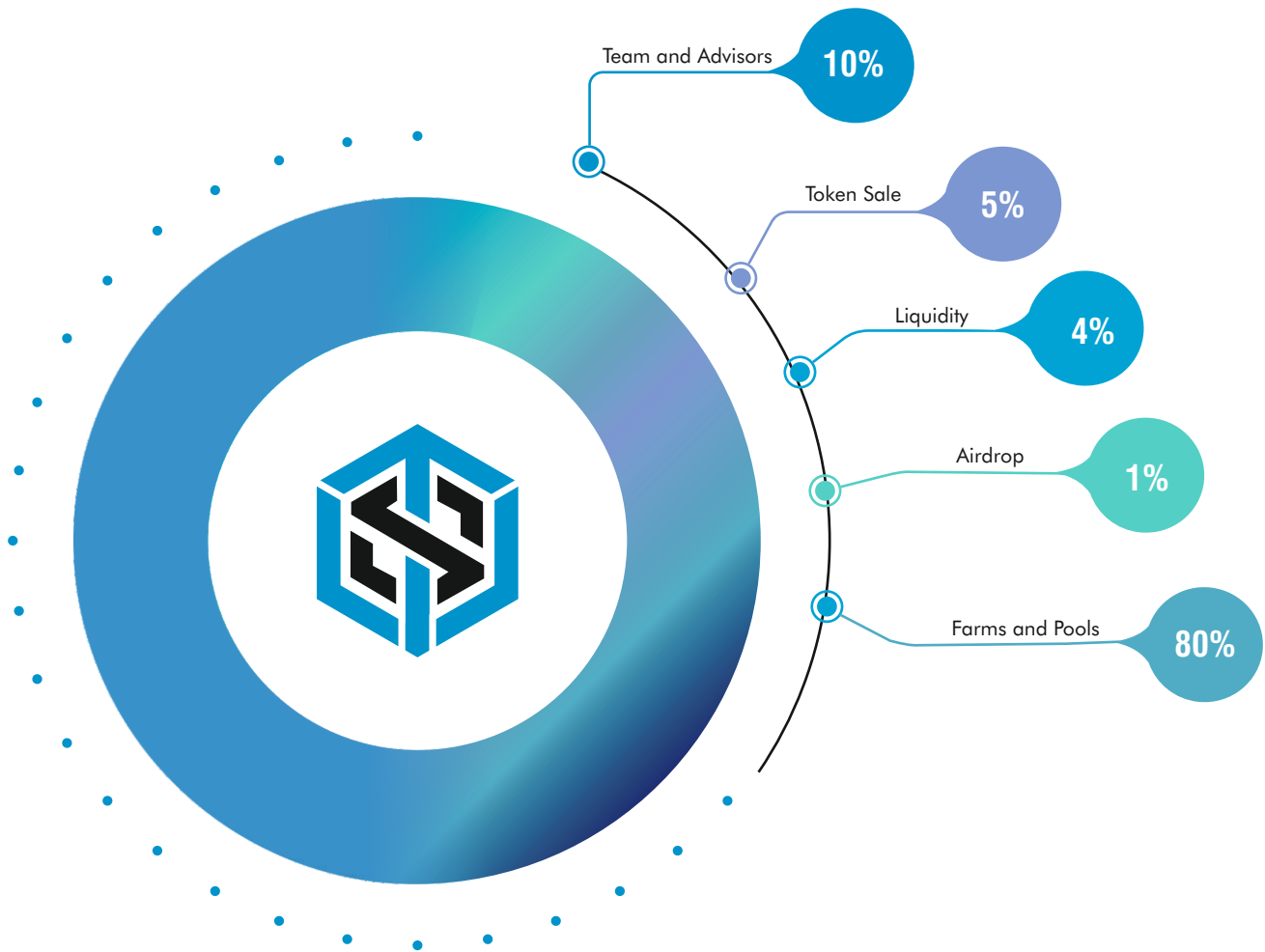
- **4% Liquidity**

The tokens will be immediately available for the general functioning of the platform.



- 80% For the Community

The vast majority of the TOSU tokens will be dedicated to the community through staking and farming rewards. This is one of the highest shares addressed to the community in the existing protocols!



4. DERIVATIVES in DeFi

Derivatives are financial contracts whose value is dependent on an underlying asset or group of assets. The commonly used assets are stocks, bonds, currencies, commodities, market indices and in recent years cryptocurrencies. The value of the underlying assets keeps changing according to market conditions. The basic principle behind entering derivative contracts is to earn profits by speculating on the value of the underlying asset in future.

The four major types of derivative contracts are options, forwards, futures, and swaps.

Options: Options are derivative contracts that give the buyer a right to buy/sell the underlying asset at the specified price during a certain period.

Futures: Futures are standardized contracts that allow the holder to buy/sell the asset at an agreed price at the specified date.

Forwards: Forwards are like futures contracts where the holder is under an obligation to perform the contract. But forwards are unstandardized and not traded on stock exchanges.

Swaps: Swaps are derivative contracts wherein two parties exchange their financial obligations. The cash flows are based on a notional principal amount agreed between both parties without exchange of principal.

In Defi, unlike in CeFi, there is no broker required. Instead, settlement automatically takes place on-chain, where the terms of the contract are fulfilled. The intersection of DeFi and derivatives is a gamechanger, bringing yet another borderless, low-barrier, financial instrument to the world.

Decentralized derivative markets are much more accessible. They can be used by anyone with an internet connection and an Ethereum wallet, no matter their location or social status. This contrasts with the traditional financial sector, which mostly serves those who reside in rich and powerful countries. Creating a custom derivative in DeFi is easy, cheap, and can be done by anyone.

In the traditional financial system, the process for creating and listing a new derivative is very complex and costs involved are close to a million USD. Because of this, most derivatives are created by big banks which potentially can make it an unfair and inefficient market relative to DeFi.

As mentioned in the Introduction, the rise of decentralized exchanges in recent years, solving several issues and surpassing limitations of the traditional centralized exchanges such as reducing security risks by using blockchains for disintermediation, has brought a lot of interest and attention and gave another fresh and new experience to derivatives trading.



Tosu Exchange is designed to deliver all the advantages of decentralized finance whilst bringing the traditional centralized finance experience and tools onboard. The platform offers easy and accessible on-chain derivatives trading with high leverage, low slippage and low costs on Crypto assets and plans to expand into traditional assets, stocks and commodities in the future.

5. Decentralized Exchange (DEX) + Aggregator + Cross-chain Swap

5.1. Swap (DEX)

Tosu Exchange Swap allows users to exchange their tokens fully on-chain through our dedicated interface in the website. Currently, we are using Pancakeswap DEX router and the exchanges happening via Tosu Exchange swap interface reflect on Pancakeswap trade volume.

For all the transactions on TOSU, the RFI technology is applied and therefore 1% transaction fee is charged on all TOSU movements (Buy/Sell/Transfert). All the collected fees are reinvested to the protocol and the community through our innovative mechanism that redistributes all the RFI collected fees directly to the holders wallet proportionally the amounts they are holding.

Once the level of trade will reach high volume and once the project reaches the maturity state, the distributed amount would be considerable. This comes in line with our targeted strategy to encourage users to hold the token in counterpart of a passive income. FIOLD & EARN!

The Swap feature will be developed over time and several functions are to be added in order to cover all the needs that a user might expect from a DEX.

5.2. Exchange Pro

Exchange Pro is a sophisticated and innovative version of the classic Swap/Exchange/DEX interface that includes many parameters and utilities that improves the quality of the users interface, provides more data on the dashboard and optimizes the use of the platform's features.

Using Exchange Pro will allow you to have in hand a multitude of tools, visulas and key statistics (Tokens Charts, Instant Swap, KPI, etc...) and to have direct and quick access to your assets to trade and swap with ease.

5.3. Tosu Exchange Aggregator

Bringing an aggregator onboard our protocol is one of the brightest features that can have a great impact on the user's experience while trying to find the best deals and investment opportunities.

Making an investment decision, especially in the crypto field, requires some knowledge and techniques but the most important part of the process will surely be related to data collection, treatment and analysis.

The market aggregator works as a search and optimization engine that collects data from several targeted sources and displays the optimal products/choices to the final user.

In simple words, Tosu Exchange's Aggregator will browse through different markets where a token is listed and bring the best offers that might match your optimal investment by extracting data from different markets simultaneously .

5.4. Cross-chain Swap

The Cross-Chain Swap is an easy and practical mechanism that assists users and investors to migrate between different blockchains without the need of classic bridges. Most of the available bridges are offered by CEXs. They mainly allow users to bridge or transfer a specific token or coin from a blockchain network to another.

Having a closer look to the principle of Bridges might give a quick feeling of a lack of flexibility to switch different tokens/coins between different networks and some additional costly steps that could be avoided using a Cross-Chain Swap.

The concept is simple! With Tosu Exchange's Cross-Chain Swap, you will be able to swap any token/coin in any network straight to a different token/coin in the network of your choice. This will allow users mostly to reduce the number of required transactions and fees to move your tokens and swap them between different blockchains.

This feature will be useful in a way that TOSU will go cross-chain right after the release of the Derivatives Trading Protocol. This will attract a whole of new investors to the project and increase its visibility in the other existing blockchains. This is for sure on our path to develop our own Blockchain...!

6. NFTs

By definition, a fungible asset is a type of asset that is interchangeable with other assets of the same type. Currency is a fungible asset. After borrowing a \$100 bill, the borrower can return the amount either in a combination of bills of different denominations or in a different \$100 bill. The value of the dollar \$100 remains the same in both cases.

A non-fungible token in the world of blockchain technology and decentralized finance has been developed similarly. An NFT is the tokenized version of a non-fungible asset. Instead of a fiat currency like USD, AUD, or GBP, these tokens may represent artwork, real estate, or collectibles. Popular digital games, such as Decentraland and CryptoKitties, frequently leverage these tokens.

There are a few features that make a token non-fungible. To start with, the ownership of NFT is unique. It can not even be substituted by another matching NFT. These tokens are not separable. Every NFT has defined ownership and privileges.

6.1 NFTs in DeFi

NFTs are the next promising trend in the world of DeFi. It helps to expand the market of collaterals in DeFi lending. In fact, a DeFi lending and borrowing platform requires collaterals. These collaterals are generally the crypto-holdings. With the introduction of NFT, one can now put other types of assets as collateral. For example, an artwork or a real-estate property can be tokenized as NFTs and put up as collaterals.

The use of NFT goes beyond the realm of collaterals. It has the capability of representing more complex financial products. These products can be insurances, bonds, or options.

In insurance, each contract is converted into NFT. These NFTs can be traded on a secondary market.

Another DeFi model that has been adopted in the world of NFTs in the issuance of governance tokens. Many platforms and NFT marketplaces have started issuing and distributing their governance tokens



6.2 TOSU EXCHANGE NFTs

Tosu Exchange is introducing NFTs as one of the major features of the protocol.

Users can mint NFTs with unique characteristics and different rarities by depositing TOSU tokens then staking it in the NFT Pools to generate rewards. Issue, trade NFTs and participate in auctions.

The process is easy and simple. Users can use any amount of TOSU to Cast NFTs in the website NFT tab. To guarantee fairness, NFT cards casting will be a random process and will not be related to the amount of TOSU used.

There are 6 grades with different Productivity and Mining Efficiency: Farmer, Janitor, Accountant, Engineer, Pilot, Boss.

As predicted earlier, the card will be chosen randomly regardless of the invested amount. Once TOSU casted, you will be able to receive your NFT card with an additional Mining Power and Efficiency that you can stake in the NFT pool to generate Rewards.

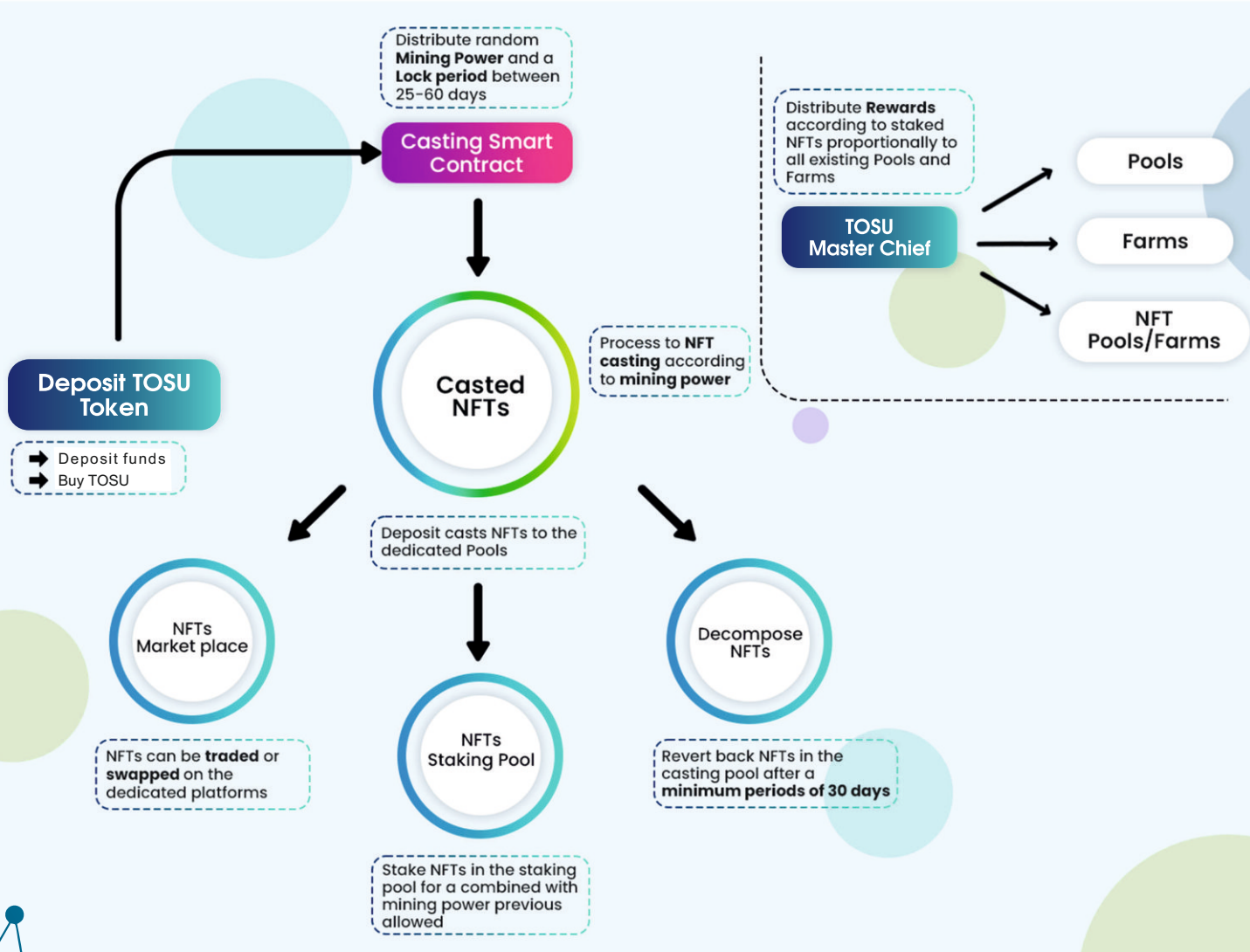
NFTs are locked for a random period between 25 and 45 days. During that period, users can benefit from the generated rewards with a Harvest Lock up period of 12 hours. These rewards can be used to cast new NFTs and increase the staked amount to benefit from even greater rewards.

The Rewards distribution system works differently from Single Staking Pool, Farms and Vaults as the generated TOSU is not minted in the process. The Rewards pool is refilled at the end of every Reward Reset Period (Weekly refill with a visible timer in the NFT Pool display), through a weekly vote organized on our on-chain governance interface. The Community will have the Power to vote for the APY to be implemented in every reset.

Tosu Exchange NFTs have several use cases and could be transferred to other wallets, sold or auctioned in the Marketplace interface. At the end of the Lock period, NFTs can be decomposed to TOSU tokens.

The NFT feature will be developed over time with several use cases to be included in order to improve the NFT experience in our protocol. As the TOSU casted in NFTs are locked for a period of time, the NFT pool APY will always be the highest in the TOSU ecosystem.

In the future and once the Circulating Supply reaches a high volume, the rarity of TOSU NFTs will increase and the value of these unique cards might reach unpredictable levels.



7. Staking

Staking is an alternative to crypto mining. It consists of holding cryptocurrency in a digital wallet to support a specific blockchain network's security and operations. By 'locking' or putting away the cryptocurrencies, users can receive staking rewards. Rather than solving complex mathematical puzzles to keep the network secure, the PoS mechanism stimulates users to strengthen the blockchain network in exchange for a reward in the form of crypto. This reward also serves as an interest. The PoS mechanism allows users to generate a passive income only by holding coins as they earn crypto.

Typically, validators are selected to produce the next block based on the size and the average period it holds on their stake. Although there are other functions to prevent a front-running consensus, a larger stake usually gives users a higher chance of producing the blockchain's next block. Proposed blocks by validators are then propagated to the rest of the set, who verify and add the blockchain's approved block.

Users can generate passive income by staking their tokens in the Pool section. Each pool has a different APY. The process is fast & easy.

- Go to the Pools page
- Connect to your Binance Smart Chain-compatible wallet
- Choose which Pool you want to stake in.
- Once you choose a pool, your wallet will ask you to confirm the action.
- Type the amount TOSU you want to stake .
- The pools will show a Collect button to claim your staking rewards into your wallet.

8. Farming & Vaults:

Yield farming allows the token holders to generate passive income by locking their funds into a lending pool for some interests as a return. While crypto staking involves a validator who locks up their coins, they can be randomly selected by the Proof of stake (PoS) protocol at specific intervals to create a block.

Yield farming is a practice allowing yield farmers to earn rewards by staking tokens and stablecoins in exchange to support the DeFi ecosystem. Yield farming, also known as liquidity mining, involves depositing and lending crypto underlying a mining mechanism to liquidate the liquidity pool for lucrative rewards.

While yield farming is comparably similar to staking's concept, there is an underline complexity associated with this mechanism. Contrary to crypto staking, yield farmers usually move their digital assets from one lending market to another in search of the highest yields.

Yield farming is never a standalone mechanism. It usually involves extensive participation of the automated market makers (AMM) – the liquidity providers (LP) that add funds to the liquidity pool from time-to-time to uphold the ecosystem. The resemblance of the staking concept allows LP to earn rewards by facilitating the transactions in a blockchain network.

Farming :

Liquidity Providers can deposit their LP tokens into one of Tosu Exchange's Farms and generate transaction fees and rewards in TOSU.

Commonly known in the crypto sphere, Farming is one of the most attractive crypto investments in recent years since it allows investors to benefit from considerable passive incomes by simply providing Liquidity depending on the projects in which they are investing.

The choice of the appropriate Farming opportunities is defined by several factors and important variables. Regardless of the project category, the platform strength, the token stability or the community engagement, it is mostly the APY / APR level - that determines the percentage of the ROI - that counts most in the Farmers decisions.

Tosu Exchange with the spirit of creating a 100% community driven protocol came with one of the Highest Yields in the DeFi and succeeded to attract a large number of investors in a few weeks and maintain the stability of TOSU all over the process.

Tosu Exchange Farms :

The process is simple and easy. It consists of providing Liquidity by getting LP token pairs (a combination between TOSU and BUSD or BNB) and staking them in the designated pool. The rewards can be harvested in every lockup period (8-12 hours) and restaked back to the pool to benefit from the manual compounding higher APR.

Liquidity provided by investors can be withdrawn without a lockup period. LP token pairs can be converted back to single tokens and will immediately reflect in the users wallets. The LP provided might be subject to impermanent loss or gain depending on the market movements and the tokens fluctuations.

Several Farms will be included with the development of the project and new pairs will be introduced to the platform over time.

TOSU Exchange Vaults :

Vaults are a unique and new feature capitalizing on the Farms process and empowering it with the special Auto-Compound Function.

In simple words, Vaults are similar to farms in the core but not in the process. It also consists of providing Liquidity for trade to generate Rewards in TOSU.

For the process, no LP pairs are required to stake in Farms. Users would simply need to provide the amount they would like to invest. The Vault smart contract will split that amount in two equal parts, buy TOSU with half the amount, make LP pairs and stake it in the Vault with an Auto-Compound function. All in one and unique Click!

With the Auto-Compound Function, we talk about the APY (Annual Percentage Yield) which invests back all generated rewards without fees based on a compound period every 7 hours. This allows users to benefit from the extremely high APY boosted by the Auto-Compound.

The Vaults system is an incentive to stake back rewards to get a share of the vertiginous APY and reduce the continuous staking and harvesting fees in the classic farms.

9. Referral Program

In order to ensure an active participation of the community in the promotion plans of Tosu Exchange, we are implementing a generous and attractive Referral program that allows all TOSU holders, investors and community members to spread the word about TOSU and earn a share of the incomes generated by their referrals on our dedicated platform.

Tosu Exchange Referral program is applied to harvested Rewards in Single Staking Pool, Farms and Vaults. All members will be allocated a referral link connected to their wallets that they can share with other users and take part in the referral program by earning 5% of the harvested rewards by the referred users.

We are setting in place a special Influencers Program where all Social Media Influencers, Promoters, Youtubers can participate by submitting their request by filling the available form in the referral interface. Once the process is completed and approved, they will be able to benefit from 7% of the harvested rewards from all the users who accessed our platform through their referral link.

Being a 100% community driven project, the referral program is one of the key strategies to attract more users to the platform and encourage community members to promote TOSU and earn even more by just referring new users to the platform.

This Program will be developed and improved over time to include more incentives for members and emphasize the importance of the referral in any Crypto project.

10. The Team behind Tosu Exchange:

Tosu Exchange is a decentralized platform designed for the community. The team members and collaborators behind the project are multidisciplinary and have extensive experience in Programming, Smart contract & Blockchain, Finance, Trading and Crypto industries along with a high understanding of economic conditions.

Located around the globe, we are trying to establish a user-friendly decentralization where transparency and cooperation are essential to thrive and achieve the main vision and mission together as a community.

The team has decided to stay anonymous for the first steps of the project. This choice came out of a deep reflection about the nature of Tosu Exchange and on how to build the trust around the potential of the project rather than individuals. We believe that every single individual participating in this project deserves to be cheered for his great efforts, dedication and participation either ways, close or far.

The Team will reveal the full identity of the core members once the project is standing on a strong community base. You have to remember we would be the "Most Decentralized Derivatives Trading Protocol" in the DeFi space, the real meaning of a 100% community driven project.

The trust and confidence should not be put in the Team itself but in the project potential, the community around it and especially in our Code and Smart Contract. Being fully On-Chain and having an operating DAO guarantee the maximum of transparency and allow us to grow together as a Community in this amazing experience.

By the Community - For the Community - Don't trust us, Read the code!

GOVERNANCE

When we are building our protocol, we want the community to be able to actively use the token, participate in governing decisions, and contribute to the ecosystem. Instead of building an exchange token for the sake of building one, we want the token to bridge the community and our team.

TOSU token holders are empowered to participate in the process of making decisions in Tosu Exchange. This includes all modifications on contract specifications, add/drop features and functions, and even corporate decisions such as the supporting of hard forks of tokens, handling extreme situations, etc. Every token holder has the same rights, those with more tokens will have a bigger influence.

Tosu Exchange's governance is a progressive process that ultimately transfers 100% ownership and control to TOSU token holders. Understanding the shortcomings of the "Day-1-DAO", the strategy retains the appropriate controls for the team until the community and token are mature and is prepared to govern itself.

Their voting power, which is proportional to their token balance, will be calculated at the end of the 14-day period. After the voting window passes, the proposal will only be accepted if a majority of voting power approves the proposal and if more than a predetermined percentage of the total token supply has participated in the election.

Tosu Exchange's Governance system is happening fully on-chain. It allows TOSU holders to propose, vote and decide the future developments of the project. Being a real actor in the decision process is one of the values of Tosu Exchange in line with the project spirit.

The Governance platform will be delivered in 3 main steps over time:

1- Governance V1: This version will serve as the base of the governance system and users will be able to experience the interface and get familiar with its global functioning. In this version, only Tokens held in users wallets count in defining the Voting Power of each member. The more TOSU you hold, the Higher is the Power of your vote and give it more chances to lean towards the big holders orientations.

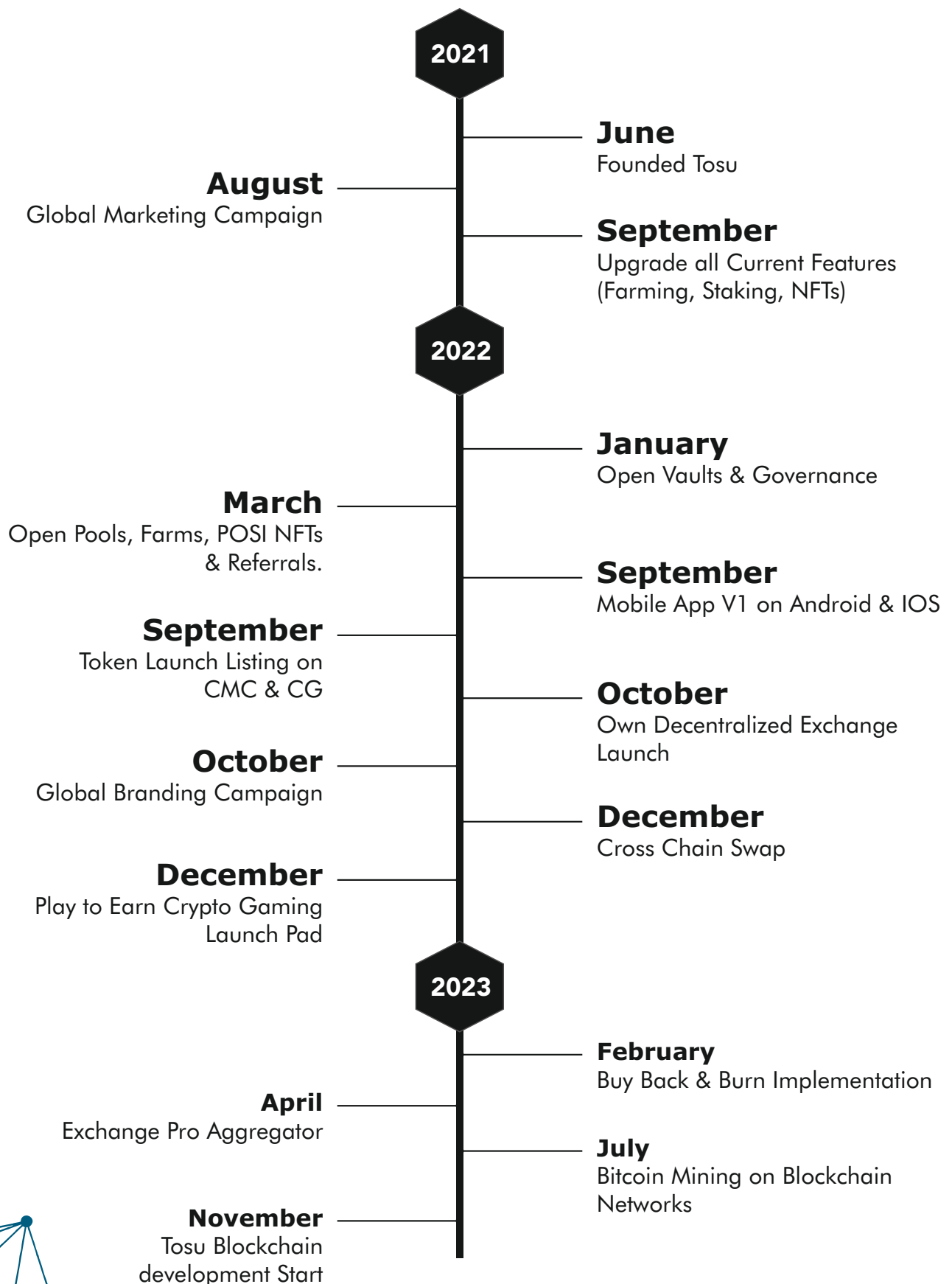
2- Governance V2: Once the Derivatives Trading Protocol Mainnet is released, we will be able to include some ameliorations in the governance system. At this point, not only Tokens held in wallets will count but also staked TOSU in Farms, Vaults and Pools. This will be a step forward to engage the whole community in the decision process of Tosu Exchange.

3- Governance V3: In this fully inclusive version of Tosu Exchange On-Chain Governance, holders will be able to submit proposals for future development to the community vote following a number of eligibility criteria that are detailed in the website's Docs section.

Implementing a such Decentralized and Community Driven DAO is a guarantee of longevity and attests of the unique character of Tosu Exchange, which is to build the Most Decentralized Derivatives Trading protocol in the Crypto space.



ROADMAP



DISCLAIMER

Tosu Exchange does not make and expressly disclaims all representations and warranties (whether express or implied by statute or otherwise) whatsoever, including but not limited to: – any representations or warranties relating to merchantability, fitness for a particular purpose, description, suitability or non-infringement; – that the contents of this document are accurate and free from any errors; and – that such contents do not infringe any third party rights.

This whitepaper does not constitute advice nor a recommendation by Tosu Exchange, its officers, directors, managers, employees, agents, advisors or consultants, or any other person to any recipient of this paper on the merits of participation in the TOSU token sale.

Participation in the TOSU token sale carries substantial risk that could lead to a loss of all or a substantial portion of funds contributed. Cryptographic tokens may be subject to expropriation and/or theft; hackers or other malicious groups or organizations may attempt to interfere with our system/network in various ways, including malware attacks, denial of service attacks, consensus-based attacks, Sybil attacks, smurfing, and spoofing which may result in the loss of your cryptographic tokens, the loss of your ability to access or control your cryptographic tokens. In such events, there may be no remedy, and holders of cryptographic tokens are not guaranteed any remedy, refund, or compensation.

The Next-Gen Decentralized Trading Protocol

