Sushi

Be a Crypto Chef with Sushi

Introduction to Sushi, its ecosystem, governance process and tokenomic.

Introduction

What is Sushi ?

Sushi is a Decentralized Exchange (DEX), we aim to be a one-stop shop for all your decentralized finance (DeFi) needs. Sushi allows users to trade cryptocurrencies without the need for a central operator administrator, using their own preferred connected crypto wallet. Users can buy and sell across 11,700 cryptocurrency pairs and trade tokens across ten crypto networks (and counting) via the newly launched cross-chain swap (**SushiXSwap**). Next to trading you can: earn, stack yields, stream, vest on one decentralized, community driven platform.

Sushi's products are open-source and configured in a way that allows the entire platform to maintain decentralized governance of $SUSHI token holders, while continuing to innovate on the collective foundations by design. Whereas major structural changes are voted on by the community, the day-to-day operations, rebalancing of pools and ratios, business strategy and overall development implementation is done by a core team.

Thus far, the core products, include:

- a decentralized exchange (**Swap**)
- a decentralized multichain exchange (**SushiXSwap**)
- yield instruments (**Onsen**)
- a base vault (**BentoBox**)
- an AMM framework (**Trident**)
- a payroll solutions for vesting and streaming (**Furo**)

The following document details the ecosystem products one by one, governance processes and tokenomic of Sushi.

Products

1- Swap

Sushi offers a variety of products but its main focus is to be a decentralized exchange and also an aggregator of swaps.

A decentralized exchange is a set of permissionless smart contracts deployed on the blockchain that allows users to exchange between an asset to another while keeping full custody of their assets. It also allows anyone to bring liquidity and become a market maker as well as list any new asset.

While liquidity and pools are being transitioned to the homemade Trident framework (see Trident section), most pools are still based on the Uniswap version 2 AMM protocol with fee being turned on to initially bring revenue to xSushi holders and now treasury (see tokenomic and Governance section).

To understand how Sushi differs from a traditional exchange, it is helpful to first look at two subjects: how the Automated Market Maker design deviates from traditional central limit order book-based exchanges, and how permissionless systems depart from conventional permissioned systems.

Order Book VS AMM

Most publicly accessible markets use a central limit **order book** style of exchange, where buyers and sellers create orders organized by price level that are progressively filled as demand shifts. Anyone who has traded stocks through brokerage firms will be familiar with an order book system.

Sushi takes a different approach, using an Automated Market Maker (AMM), sometimes referred to as a Constant Function Market Maker, in place of an order book.

At a very high level, an AMM replaces the buy and sell orders in an order book market with a liquidity pool of two assets, both valued relative to each other. As one asset is traded for the other, the relative prices of the two assets shift, and a new market rate for both is determined. In this dynamic, a buyer or seller trades directly with the pool, rather than with specific orders left by other parties. The advantages and disadvantages of Automated Market Makers versus their traditional order book counterparts are under active research by a growing number of parties.

Permissionless Systems

The second departure from traditional markets is the permissionless and immutable design of Sushi. These design decisions were inspired by Ethereum's core tenets, and our commitment to the ideals of permissionless access and immutability as indispensable components of a future in which anyone in the world can access financial services without fear of discrimination or counterparty risk.

Permissionless design means that the protocol's services are entirely open for public use, with no ability to selectively restrict who can or cannot use them. Anyone can swap, provide liquidity, or create new markets at will. This is a departure from traditional financial services, which typically restrict access based on geography, wealth status, and age.

The protocol is also immutable, in other words not upgradeable. No party is able to pause the contracts, reverse trade execution, or otherwise change the behavior of the protocol in any way.

2- SushiXSwap

With XSwap, Sushi now lets you bridge and trade tokens across the following chains: Ethereum, Optimism, Arbitrum, Fantom, Binance Chain, Avalanche and Polygon (We're constantly adding more chains as well)

Sushi now connects all major chains and rollups, with one easy-to-use dApp interface.


Getting AMMs ready for the Multichain future

As the number of chains and rollups continues to balloon across Web3, one of the largest pain points that has reared its ugly head is a horrific UX; partly due to the complex nature of DeFi itself and partly due to our own choices made so far as a community, the UX across the board has fallen by the wayside. From clunky UI's to moving assets across chains, the user experience is just simply not all it can be. It is widely believed that this is Web3's greatest hurdle to mainstream adoption, and it's one that we take very seriously here at Sushi, since our DeFi apps can be found across numerous (Fourteen!) different chains and ecosystems.

To help combat this, we have released **SushiXSwap**: one of the first ever crosschain AMMs, built upon LayerZero's Stargate protocol. SushiXSwap is a unified, multichain UI for swapping tokens across any of the major chains, with support for more in the pipeline. The

two main challenges for crosschain bridges so far have been an implementation-oriented one and a liquidity-based one - it's tough to keep the UX friction free when numerous bridges each have their own standardizations, while simultaneously trying to find enough liquidity for both sides of the swap.

As an example, consider this: a new chain has just been deployed and you want to get in on some of the early farming action, chasing the sky-high APY. You head to the new canonical bridge that has been set up, input some tokens to bridge over, then… wait! You realize that you actually need the new chain's own native gas token to make the transfer! You quickly look all around mainnet for some of these new and elusive gas tokens so that your early farming lead isn't spoiled, only to find that there is next to no liquidity for it anywhere. What to do? Do you bite the bullet and turn to a centralized exchange? Do you simply give up on your alpha you've been excited to act upon? Do you beg the unapologetic masses on Twitter?

Luckily for you, **SushiXSwap** solves these major issues and allows you to spend more time strategizing about your next moves once your assets are actually on the destination chain, without worrying about whether your assets are safe or will even make it while they're in the cross-chain bridge ether in the first place. Leveraging LayerZero's groundbreaking omnichain messaging protocol by allowing users to make one-click, chain agnostic swaps, SushiXSwap itself extends the functionality even further, enabling users to then use our own liquidity pools on each chain to get the desired assets on the destination chain. In effect, this means that multiple bridges are in play, regardless of their implementations, as SushiXSwap will efficiently route through all of these separate implementations to find the user the absolute best price for any pair, regardless of the chain they're using.
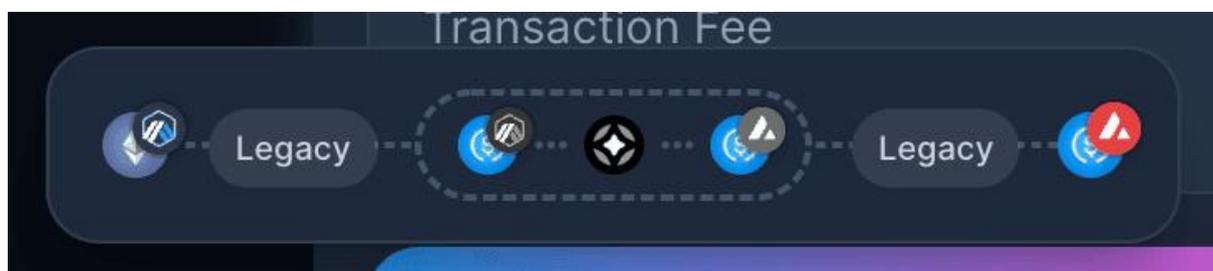
The bridging process: User → Sushi → Stargate → Sushi → User

Because its simple, intuitive UI is integrated directly into our swap interface, there will be zero friction in making the switch - as a user, you will now simply be able to leverage the power of SushiXSwap across multiple chains!

Bridge and swap any token, with minimal slippage at best prices

A challenge for crosschain bridges so far has been finding a path with sufficient liquidity on both sides of a swap. We solve this problem by plugging into our own Sushi liquidity pools, which are currently deployed on 14 chains. Being able to use this liquidity guarantees our users to always receive the best price for any pair across all the chains.

Sushi's swap routing finds the cheapest, fastest and most secure route for any user to get from point A to point B by plugging into Layer0's **Stargate** bridge infrastructure. Stargate

bridges chains securely without compromising on decentralization, which allows SushiXSwap to scale to any number of chains in the future.

To further ensure we can always find the cheapest route and best price between any two tokens on all chains, we will continue to aggregate more bridges in the future. By building SushiXSwap in a modular, composable way, we will simplify the integration of your favorite bridge into our aggregator interface.

This approach to scaling **[SushiXSwap](#)** will set up Sushi to become the leading bridge interface and multichain DEX across all major blockchain ecosystems.

Everything you love about AMMs - across all chains

SushiXswap features all features you already love about Sushi - but across multiple chains:

- **Deepest liquidity**: Always finds a path to trade on all major chains
- **Decentralized**: Built on Stargate
- **No extra fees**: 0.3% standard DEX fee
- **Lowest slippage**: No reliance on third parties
- **Non-custodial**: Protocol-managed liquidity
- **Fast**: Instantly initiate trades on both chains
- **Safety guard**: Failed transactions save into stablecoins
- **Bridge aggregator**: Modular bridge API

3- Onsen

Onsen Farms bring new liquidity to Sushi, expand our pool offerings and foster exciting synergistic partnerships with other DeFi projects. The infrastructure used to make this possible is named **MasterChef**.

MasterChef is a smart contract that distributes Sushi rewards to users staking their tokens. To compete with other AMMs - Sushi needs liquidity. In order to attract more liquidity, Sushi gives out incentives to users who add and stake their liquidity (Sushi LP) tokens.

By staking their LP tokens, users will earn fees from swaps and extra sushi incentives (double rewards)!

MasterChef Implementations

There are three different implementation types of MasterChef, each with a different focus for different situations:

- **MasterChefv1:** The main contract on the Ethereum network that rewards $SUSHI to users for staking their LP tokens

- **MasterChefv2:** Secondary contract on the Ethereum network. It is built on top of MasterChefv1 and gives 2 different types of tokens as a reward. e.g Users will receive SUSHI & another token as their staking reward

- **MiniChef:** This contract is mainly deployed on various EVM compatible chains (AVAX, FTM, CELO, Arbitrum, Polygon etc.). It is similar to MasterChefv2, in which it also gives 2 different type of tokens as a reward

4- BentoBox
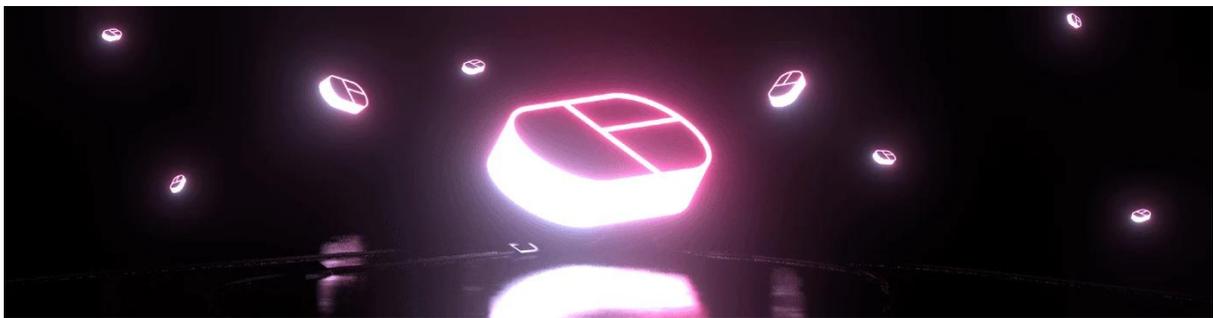
Sushi's BentoBox is a token vault that can support a collection of Dapps. Users can interact with these many Dapps in a gas-efficient manner, by leveraging the benefits of using a mutual token vault. On the other side of the coin, developers can even take advantage of the power of BentoBox, as it allows for the deployment of contracts at a lower cost, thanks to its gas efficient infrastructure, so developers can focus on what really matters, building.

Further, the BentoBox is a token vault that can support a multitude of Dapps within it. Dapps that are built within BentoBox can save their users, people like you, on network wallet fees, since tokens are already approved for use within the vault. A more exciting point, too, is that BentoBox algorithmically generates yields for depositors.

Users who deposit their tokens into this innovative vault will passively earn yield on their assets, completely automatically! This is made possible by strategies applied to BentoBox. You can think of a strategy as a type of map that lays out the paths that held assets will safely take, while held in the vault, to earn added interest through other protocol tools. At the time of writing, the current strategy applied to BentoBox is the Sushi strategy. This means that our powerful token vault will automatically ensure that held assets are taking advantage of all available yield-generating tools on the Sushi platform, while performing their intended actions within the apps of BentoBox.

The innovation of the BentoBox lies in its effortlessly scalable design. Its scalar design allows BentoBox to serve as the future infrastructure for forthcoming DeFi protocols on Sushi. Unlike other protocols, it creates a primary source of liquidity that any user can access with minimal approvals, minimal gas usage, and maximal capital efficiency.

Three Ways That The BentoBox Will Upgrade DeFi

#1 Unprecedented Gas Efficiency

The Ethereum Network has faced increasing and inconceivable network congestion, resulting in barrier-inducing fees that affect any operations.

The BentoBox was created specifically to give developers a new yield generating platform where they can build Dapps without concerning themselves with gas optimization strategies through its gas cost efficient infrastructure and the same, if not better, functionalities to create an optimal user experience. The vault is constructed in such a way as to allow minimal actions to be taken by the developer and the end user to complete actions.

For instance, approving the BentoBox access to your wallet's tokens only one time and depositing them into your vault, allows those deposited assets to be used in any of the other Dapps within BentoBox, without needing to approve your wallet's token access transaction ever again. In addition to creating savings on gas fees, the BentoBox's design will allow projects who integrate with the BentoBox to become interconnected through it, by providing synergies between protocols, another way that Sushi prides itself on harnessing the value of network effects.

Sushi's ex-core frontend developer, Omakase, described BentoBox as: "A layer 1.5 solution, where everything has been put into one token vault." This means, for tokens inside the BentoBox, the smart contract interaction costs will be significantly lower. Additionally, the BentoBox has been designed to be developer-friendly, so that creators who are new to the Sushi community can feel comfortable even when first exposed to this new technology.

#2 Passive Income Generating Tool

Tokens deposited in the BentoBox may be lent out to flash loan borrowers and to vaults to receive interest on the principal. This interest is then distributed across all of the token depositors.

As mentioned above, the Bentobox is a yield-generating token vault with community-approved yield strategies in place. Anyone can add liquidity, and anyone can build on top of it. The Bentobox will algorithmically transfer the liquidity to earn passive income from or a multitude of yield strategies via protocols like Cream and Compound, and of course, as mentioned, our very own Sushi strategy.

#3 A New Kind of Ecosystem

BentoBox, as a platform, launched its first lending product, Kashi. Soon, there will be more Dapps built on top of it, as the BentoBox is permissionless, and thus allows anyone to do so.

Projects that build on top of BentoBox enjoy these privileges:

1. Extra yield from flash loans,

2. Extra yield from strategies,

3. Optimized deposit, withdraw and skim functions that auto-convert ETH to WETH,

4. Low gas (and fixed gas) transfers of tokens within the BentoBox,

5. Simplified approval of tokens (no need to re-approve for each protocol)

6. Minimal proxy contract factory build in. No need to roll your own.
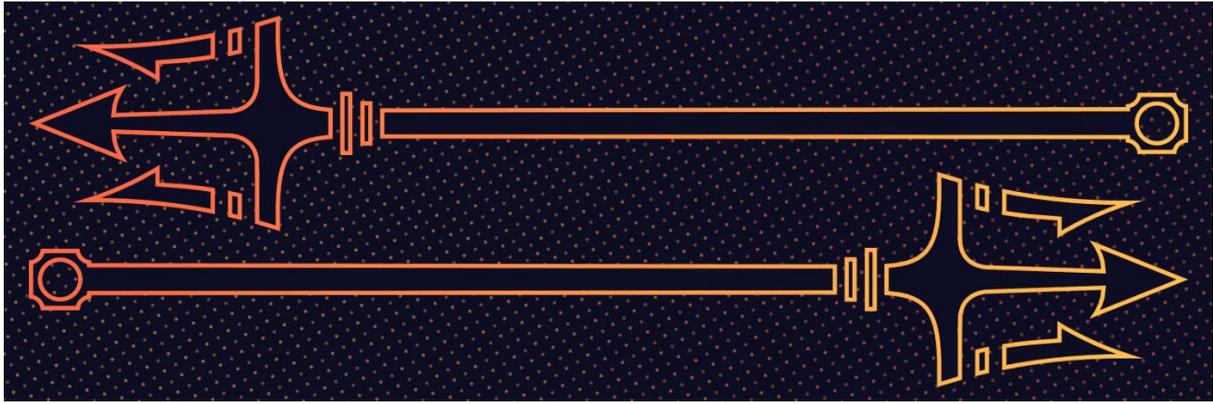

5- Trident

We're used to the idea of exchanges releasing new automated market makers (AMMs) with each new version (e.g. Uni v3 or Curve v2). They're usually hard-coded pools (AMMs) into an interface where users can swap/add liquidity. Instead of yet another AMM, Trident is going to be a new standard that any other AMM can build on top of, and can synergize with. While Trident has the ability to create functionality for users to make swaps and add/remove liquidity, it is much more than just a hard-coded swap environment (AMM).

Trident is a Framework

In the recent past, it has been customary for exchanges to release a new automated market maker with each new version. Uniswap v3 and Curve v2, for instance, hard-coded pool types (AMMs) into an interface that users can employ to swap or add liquidity. This custom has likely created the misconception that Trident is also an AMM, or a collection of AMMs. While Trident has the ability to host AMMs that allow users to make swaps and add/remove liquidity, it is not itself a specific AMM. As we've released the beta of Trident on Polygon, it will be important to clarify what Trident actually is.

An AMM Production Framework

Trident is a production framework for building and deploying AMMs, but it is not *just* an AMM itself. While AMMs can be created using the Trident code, there isn't a specific AMM at the center of Trident. Instead, there is a framework for creating any AMM anyone would ever need. The concept behind this framework is that hard-coded swap environments like those found in Uniswap, Curve, and Balancer all necessitate the same underlying methods, and can therefore, be consolidated into a single interface. By consolidating them into an interface, the development process can occur more rapidly at a community level. For all intents and purposes, this interface, which we are calling the **IPool interface**, is also a discovery in the nature of liquidity at the point of execution. There are only so many things you need to do with a pool design, so pool designs will invariably follow the same patterns.

Programming to an Interface

The aforementioned methods (swap, flashSwap, mint, burn, etc.) are collected in the IPool interface, which is extended in every Trident pool contract. In that sense, IPool is at the crux of the Trident production framework. The value of this framework is that it helps to streamline development. Pool types have reached a point of complete saturation in the Ethereum development environment, and they would benefit from consolidation into an interface that allows developers to make advancements more rapidly, collectively. Much like the **ERC-20** token standard was needed for token types to become efficient, the IPool standard is needed to make pool types more efficient. Any new innovative, inventive, blistering edge pool type can be built using IPool — a pool for trading decentralized options, a pool for infinitely many stablecoins, a pool for zero coupon bonds, and the list goes on forever.

The framework design pattern used by Trident is known as **interface-based programming**, and it has additional advantages in the context of Sushi's future growth:

- Any future AMM that might be competitive in DeFi can be integrated into Trident.

- Dynamic liquidity types can be created and added using the existing framework, without requiring a new framework to be created and deployed from scratch.

- Counterproductive game theoretics can be prevented in advance by projects preparing their liquidity to go to market. That is, you can prepare pool types to fit your own strategies.

- External developers can engineer high volume pools, and earn from the fees.

6- Furo
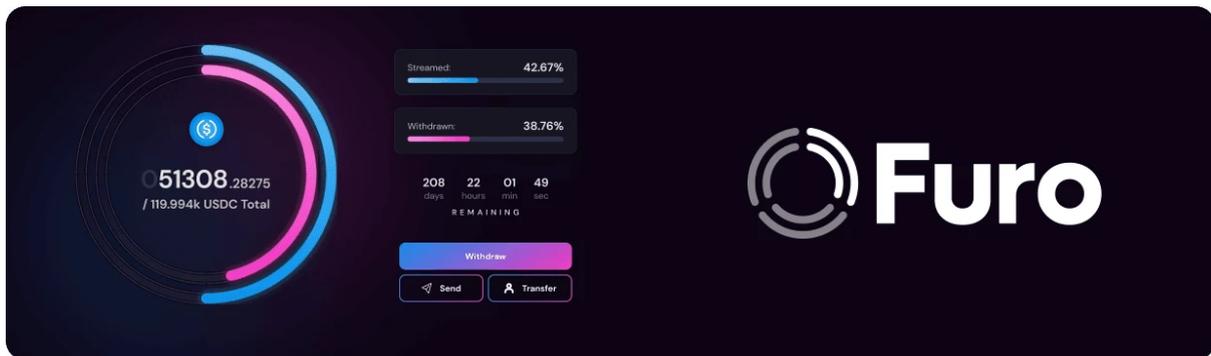
Furo is a payment streaming platform that anyone can use to make automated payments to other wallets - whether they be for individuals, DAOs, or any other type of entity.

Payment streams

Furo lets you set up payment and salary streams for contributors. DAOs usually pay their members on a pro-rata basis over a fixed time period, which is a recurring admin heavy task for many DAOs. Furo aims to free DAOs from these processes, by automating them using smart contracts that distribute funds linearly over a set period of time, while giving admins full control over updating the streams.

Token vesting

To align contributors around shared goals, DAOs usually issue vested tokens to their contributors - similar to startup options in the legacy startup world. In the old fashioned way, DAOs have to recreate and redeploy their own vesting contracts. Furo saves you time on contract deployment, while additionally providing you an intuitive and easy to use UI to see the vesting schedule and progress.

While it may seem very similar to apps like **Sablier** or **Llamapay**, there are additional features which make Furo particularly appealing. One of these strengths would be the utilization of the BentoBox architecture.

Other apps require funds to be locked in contract. With Furo, tokens sit inside of the BentoBox giving potential for them to also simultaneously be utilized by strategies to accrue yield. This provides a pleasant way to have your value grow before you even receive it! Streams and vesting that are sent via Furo are also represented by an NFT minted to the receiving wallet. The owner can even send that NFT to another wallet to transfer ownership of the stream.

It also minimizes admin work by integrating with your existing DAO or DeFi tooling - E.g. Auto-swap tokens when claiming salaries. The DApp also allows users to create different types of streams, for example: a stream which cannot be canceled or a stream with vested tokens.

Furo is available on many chains including: Ethereum, Polygon, Gnosis, Arbitrum, Optimism, Avalanche, BSC, Fantom, Harmony, Moonbeam and Moonriver.

Sushi DAO

Current Governance Model

Sushi is ultimately governed by its community, via forum discussions and, when pertinent, voting on proposals held on the Sushi Snapshot. At this time, only proposals posted to the Snapshot voting system by the Sushi Core Team can be considered binding if passed with a quorum.

Major structural changes and use of the devfund wallet are voted on by the community, whereas smaller changes affecting operations, as well as changes of Onsen farming pairs, are decided on by the Sushi Core Team. The mandate for this comes from the following proposal:

https://forum.sushi.com/t/governance-reorg-pre-proposal/28

Any use of the devfund wallet requires that the **Treasury Multisig** (**0xe94B5EEC1fA96CEecbD33EF5Baa8d00E4493F4f3**) sign it, which they will only do if it is clearly by the will of the community and has had a passing vote by quorum. There must be at least 4 out of 7 signatures for a transaction to be approved.

The **Multisig** members are trusted members of the DeFi & Ethereum ecosystem:

- **@Mable_Jiang** - **0x73A5A5Ad6280E6DEE92258a95161463511CE3Ac9**
- **@0xSami_** - **0x1dcF887d5A223803181D5C741a37290a67A8B92d**
- **@nickjrishwain** - **0x019b842624865eB910244B359Dae9b1F0F257E73**
- **@0xChop** - **0x6325495825d198C1A6d54F4467efc5600eeefeE3**
- **0xMaki** - **0x285b7EEa81a5B66B62e7276a24c1e0F83F7409c1**
- **@DeFi_Ted** - **0x22199254D089d408b324C23Be01085773f797BeD**

https://app.safe.global/settings/setup?safe=eth:0xe94B5EEC1fA96CEecbD33EF5Baa8d00E4493F4f3 **(Addresses not fully updated yet as we are in the midst of transition. See snapshot vote for more details)**

Any changes that are within the purview of the core team, such as rebalancing and administration of farming pools and use of the growth fund, must pass the **Operations Multisig** with at least 3 signatures.

The **Ops Multisig** (**0x19B3Eb3Af5D93b77a5619b047De0EED7115A19e7**) members are:

- **@MatthewLilley** - **0xFBb3a85603C398Ff22435DD40873EC190134e1f6**
- **@0xJiro** - **0x4bb4c1B0745ef7B4642fEECcd0740deC417ca0a0**
- **@LufyCZ** - **0x6b83270726342E02a11E755e8CC35275712122eC**
- **@sarangprikh22** - **0x8620D3edd67Ed411CCb314F3CFFF5a27A7C74A74**
- **@chillichelli** - **0xb2701351a2c1c6E30BFA2699d25f85a5100e39D3**
- **@OlaStenberg__** - **0xdd1F32b391B0b0299941c67ad63Fca423AF4f795**

Our goal is to establish a DAO with working, trustless governance. This is not an easy task by any measure, and is not something that will be rushed. All are welcome to discuss how the future DAO should work, as well as how the current governance model works, by participating on our forums and in the #governance channel of our Discord server.

Proposals & Voting

Any member of the community is welcome to post a proposal on our forums, but please try and follow the set out template that is shown when creating a thread so that the proposals can be easily read through by the prospective voters. If you desire a poll to be added to your thread, please contact a member of the core team or a community team member.

Your proposal can gain enough traction to be brought up for voting on our Snapshot voting platform by the core team, where the community will vote with **SUSHIPOWAH** to decide the outcome.

Our Snapshot voting platform can be found <u>here</u>, where all Sushi proposals are housed.

SUSHIPOWAH is our voting metric, and is decided as follows:

Each $SUSHI in the SUSHI-ETH pool is worth **2 SUSHIPOWAH**

Each $SUSHI held via xSUSHI tokens is worth **1 SUSHIPOWAH**

For a vote to pass and become binding, it must gain a quorum of at least 5 million **SUSHIPOWAH**.

Please note: To be an eligible voter for any proposal on our Snapshot, you must have **SUSHIPOWAH** from any or all of the 3 above options *at the time of the vote being started.* This means that you cannot simply buy $SUSHI tokens to vote on an already ongoing vote, and is meant to reduce the risk of influence by whales and flashloaners.

Sushi Tokenomic

Introduction

Sushi tokens were distributed through a fair launch, no pre-sale or any investor was able to buy sushi tokens at a better rate than everyone else.
90% of the Sushi tokens were and are currently distributed through the ONSEN program with liquidity mining.
10% are distributed to the treasury to pay team members, infrastructure costs and other costs to help maintain and develop the Sushi brand.

Sushi is currently capped to 250 million tokens, to be reached in November 2023.

Initial parameters

Sushi tokens can be staked in the SushiBar, users receive xSushi tokens in exchange. xSushi tokens receive a part of the fees from the protocol and voting power on proposals.

Current parameters

It has recently been decided and voted by the community and sushi team to turn off the fee distribution to xSushi holders and redirect them to the treasury to make it more sustainable for future development and growth of the sushi brand.

It is important to note that the treasury is ultimately governed by the community and the fees accumulated will not be used without being approved by token holders.