SWAY SOCIAL: The Web3 Social Capital Protocol For The Open Metaverse

v0.9 (draft)

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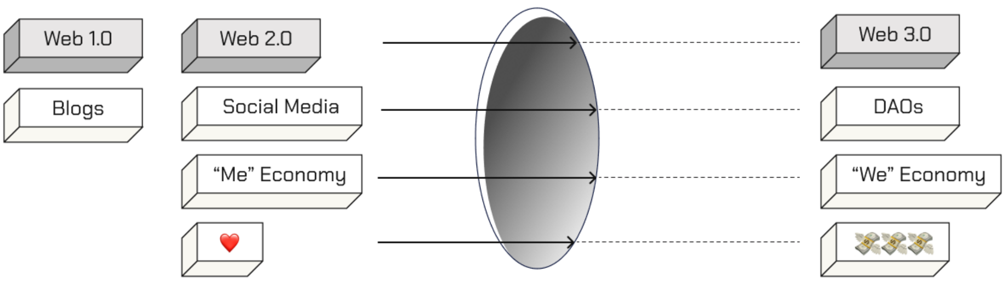

Abstract. Every building block in the Metaverse, be it game item, avatar, collectible, social media post, land or title, will be an NFT. Behind every NFT is a creator, and behind every creator is a community that establishes the value of a creator's social capital.

In traditional Web2 social media platforms, the number of 'Likes' or 'Followers' is directly correlated to their earnings potential. A creator is primarily valued by the number of followers they can engage with.

Sway introduces a web3 equivalent model where social capital is translated into an asset class. Instead of 'following' a creator, participants can stake with their creator pool.

Value is established based on the pool participation and total locked value (TVL). Stakeholders in effect underwrite the creator's potential through a subDAO and then share in the creator's revenue.

1. Introduction

Back in 2013, Jack Conte spent countless days and nights building a replica of the Millennium Falcon set from "Star Wars" to shoot a music video in it. But this time around, he decided to add a special segment at the end of the video, where he encouraged his fans to support him directly by going to his new website, where they could pledge money for every video he creates. This was the genesis of Patreon, a new membership platform for content creators. Jack's idea went on to empower a whole generation of creators through a different content monetization model.

The creator economy narrative has been around since the 90s, albeit in a more traditional form, that has evolved from television to what is nowadays the most popular content platform, TikTok. What has truly propelled the creator economy interest and expansion recently is the pairing of creators with the crypto industry, namely social tokens and NFTs. A decentralized monetization system could be a source of sustainable form of revenue. For value exchange to happen, as with payments, there is no need for a third party to be present.

In this paper we explore this trend and propose a solution of how social capital, as the cornerstone of a future creator economy, would exist as an asset class in a decentralized system or within a Metaverse. While NFTs solve the ownership problem of a digital item, they are seldom utilized properly in an economic model that benefits the content creator's social capital in a form of deriving value from their likeness or *sway*[1].

Evolution of Clout.art

Sway Social started as part of the infrastructure of Clout.art, a specialized NFT minting and marketplace platform for social media posts. Clout.art has quickly become one of the leading services in the space, with over 3,500 NFTs minted from Instagram posts to date. Clout.art conceptualized the idea of the Shareconomy for creators and now remains the first implementation of Sway Social.

2. Problem

Social capital can be defined as networks of relationships among participants and their ability to engage and influence each other. With modern day social media platforms, the number of 'Likes' and 'Followers' per content creator is directly correlated to their earnings power, creating a feedback loop that compounds their value.

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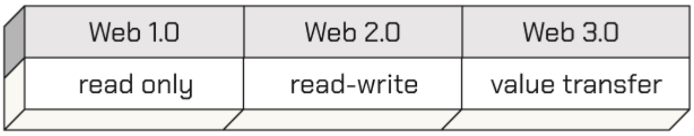
[1] **sway - /sweɪ/ - control or influence (a person or course of action)*

This representation of online social capital and clear economic benefit, or asset pool, is not recognised in a tangible form. The Web 2.0 and its applications were built around an information read-write principle where the value remains locked in with the service provider.

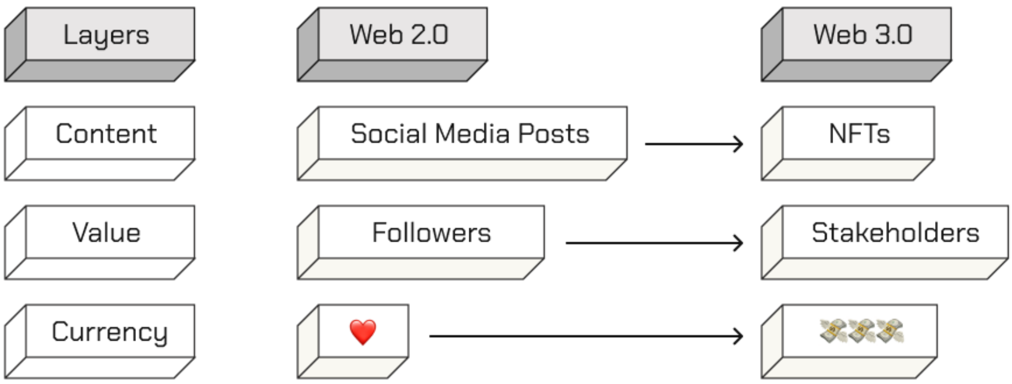


More and more, social media users and communities are conscious of this misalignment and consequently growth will be constrained. Web3 offers an alternative by enabling democratisation of value transfer and introducing a Shareconomy model that resets the economic principles of social media and removes the friction point that is threatening its growth.

With the boom of the NFT industry the importance of social capital in this space has grown substantially. Value of a creator's NFTs is in most cases directly correlated to the value of the creator's social capital. With popular NFT drops, value is reflected in the social capital of the initial holders primarily and major holders later on. A good and investable NFT collection is more often determined by the social capital of people who own a piece, compared to floor price and volume.

3. Solution

The proposed solution captures value through stakeholders. In line with the transition from Web2 to Web3, the core mechanism is no longer built around read-write transfer of information, but around democratized transfer of value. The transition of social experience is represented via three layers: *Content*, *Value* and *Currency*.



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This transition will make way for social capital to be translated into an asset class. We can draw on parallels to credit markets where the existence of third-party guarantors or credit underwriters reduce the overall cost of capital and enhance the earnings power for primary debt issuers.

By analogy, stakeholders are providing a social underwriting facility for content creators. This social capital model enables a commercial relationship to exist between content creators and their underwriters.

4. Protocol Overview

The vision of Sway Social Protocol is to be an open, creator-owned, decentralized social protocol that establishes a fair and trustless model of assessing creator's social value in web3 and Metaverse – directly through their content and enabled by design via six components of the core model:

Creator Pools	Stake Queue	Creator Adoption Mining
SubDAO Framework	DAO Governance	SWAY Token

4.1 Creator pools

Creator pools introduce a new concept of staking with your creators and sharing in their success. Just like with the more familiar liquidity pools, they require value to be locked in a form of a stake that will later yield rewards, but instead of deriving value from pool's performance, they use the performance of the creator's NFTs as the value generator.

	Liquidity pools	Creator pools
Stake	Pairs with native tokens (ie. $SWAY/USDC)	Individual SWAY or partner tokens
Value generation	Lending and borrowing, trading/usage fees	NFT sales (portion, dynamically calibrated)
Rewards paid	Intervals	Events (NFT sale, secondary sale, mining distribution)
Rewards distribution	All equal	Higher position pays best

Pools are established by creators as they join the platform or by third parties that would want to secure a top position in a pool ahead of time. Whilst native tokens are required to establish a pool, both native or partner tokens can be used to stake with a creator.

Each pool is a standalone smart contract with three key parameters. (Note that with the first generation pools, all pools are operated through a single smart contract and the partner token functionality is not yet available)

channel	unique_id	partner_token

Channel is the primary selector of the platform on which the creator pool can be based. Channels will always be predefined – at start by Sway Social core developers and later by the DAO. Initial channels include both Web2 social media and Web3 wallet modules. This list is to be expanded in the future.

Web 2	Web 3
Instagram	Wallet
TikTok	ENS
Twitter	
YouTube	

Unique identifier is channel-specific. On social media channels it is the public identifier, a handle. On Web3 it's mostly a wallet, but it can also be give in ENS format.

channel	unique_id
Instagram	@metaverse
ENS	parishilton.eth

As a decentralized solution, Sway does not validate these entries. A typo in establishing the pool would mean an irreversible action. Any entry that has not yet been reserved or taken is available.

Partner token allows additional native token to be used for staking in a particular pool besides SWAY, but has to be 1) whitelisted and 2) balanced (initially by the Sway Social core developers and later by the DAO). Initial balance for all partner tokens will be 80/20, meaning that at least 20% of total positions need to be SWAY. Partner tokens can't be used to establish pools. Rewards can be paid in either SWAY or WETH (direct participation).

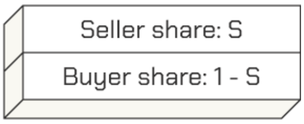
Based on the pool's claim and activity, the pool can have three states and, based on that, three ways of rewarding stakeholders and creators.

Local stakeholders describe anyone staking in the observable creator pool. *Global stakeholders* describe anyone staking in any pool across the platform.

Pool	Unclaimed	Passive	Active
Claimed by owner	✕	✓	✓
Generates sales revenue	✕	✕	✓
Rewards paid to	• Local stakehold	• Creator • Local stakehold	• Creator • Local stakehold • Global stakehold
Rewards for revenue share	✕	✕	✓
Adoption mining distribution	✕	✓	✓
Rewards from global staking	✓	✓	✓

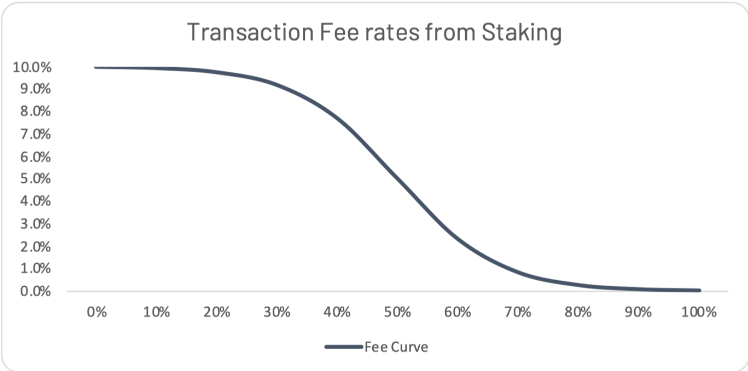
4.1.1 Sales revenue share

It is expected the sales revenue to bear most of the value generated for the ecosystem. The fee rate for any transaction is determined by the *Global Staking Ratio* (S) of SWAY that is also used to determine fee obligation for seller and buyer.



We assume for now that revenue generation is the simple sales of NFTs by content creators although other monetisation strategies are easy to envisage. The system fee-rate applied to content creators' revenue is determined from the total proportion of SWAY staked at that time and identical across all content creators.

The maximum fee rate is 10% and a logistical curve is used to adjust rates with respect to staking. As total staking increases, the fee applied to content creators' revenue decreases following the curve below:



The non-linearity incentivises staking in low stake environments and dis-incentivises at high staking levels pivoting at 50%.

Since fee-rates and volume have a mutual dependency in a mature system, as markets become efficient, aggregate SWAY staked will maximise absolute revenue, i.e., the product of volume and fee rate.

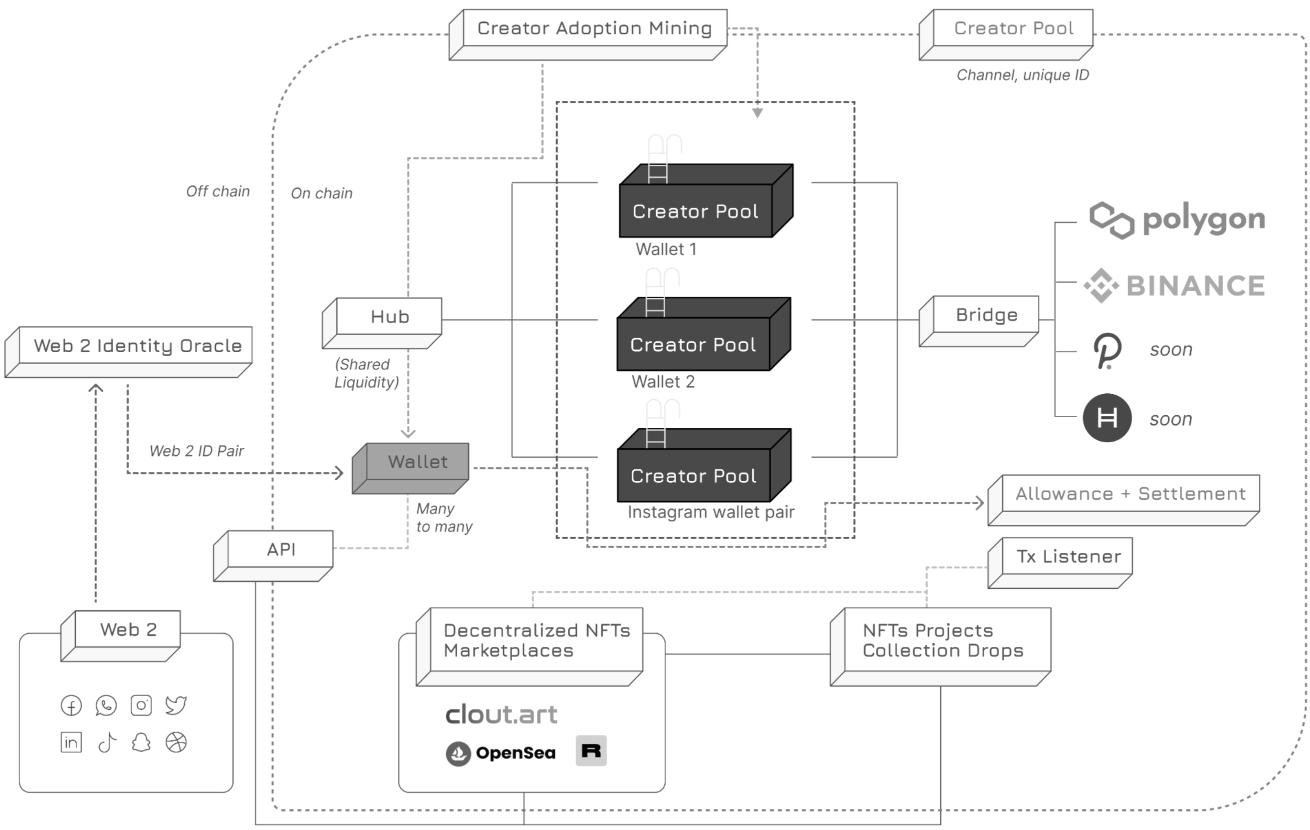
Buyers fees are settled in tokens and seller's fees are settled in the transaction currency. This creates token supply and demand elasticity as a function of Staking.

4.1.2 Creator hubs

When creators establish various pools across different channels, they are able to join them all into a creator hub. A creator hub is a smart contract that connects various pools together.

With such a merger the relationships between stakers also change. The positions of the stakers are not retained and are reorganized. The main criteria is the date and the amount of the stake. This might, consequently improve or reduce the yield of a particular position.

4.1.3 Architecture



4.2 Stake queue

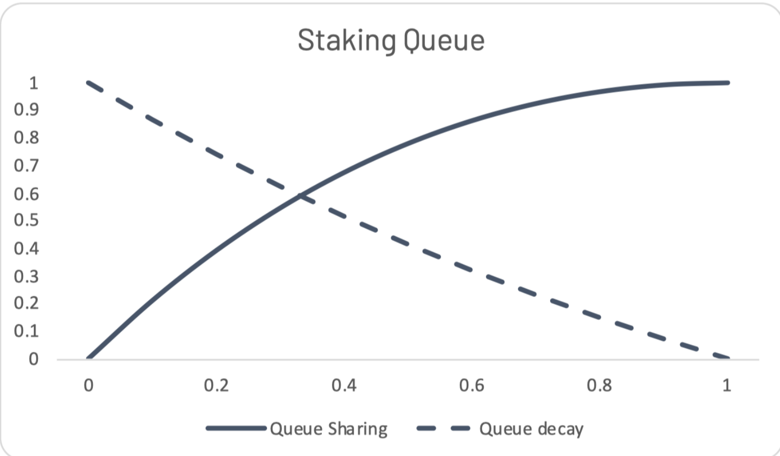
Creator pools are established by each creator as they join the platform. Sway tokens are staked to the pools to gain a share of the transaction fees specific to that creator. Both the buyer and seller fees are shared with the pool on the same terms.

The fee share is based on a Stake Queue following the exponential function:

$$f(x) = 2^{1-x} - 1$$

Where x is staking ratios for each pool and for our purposes is bounded by 0 (no staking) and 1.

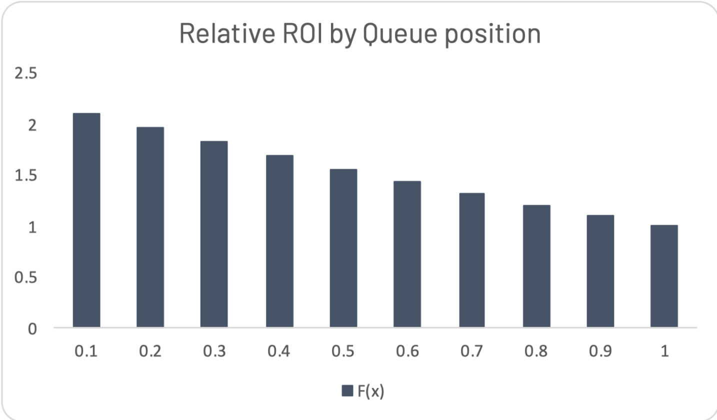
Through integration of the function, the share of fees can be determined and allocated by each stake with respect to their queue number and proportion of tokens in the pool.



In a simple example where a queue of 5 people stake 20% each:

Queue position	1	2	3	4	5
Stake	20%	20%	20%	20%	20%
Fee share	39%	28%	19%	10%	3%
Share : Stake	1.96	1.41	0.94	0.52	0.16

The integral function rebalances the shares as staking weights change. New staking will reduce shares for the whole pool but maintain the curve distribution. Older staking removed from the pool will shuffle everyone up the queue.



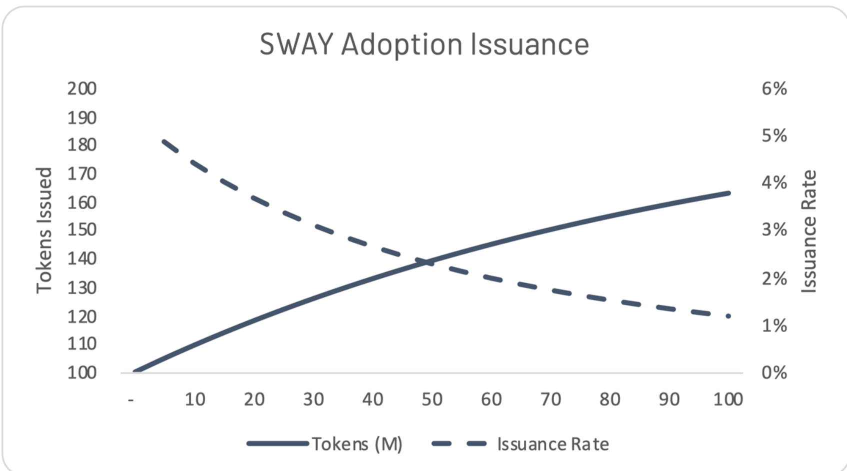
Rewards are added to the principle (compounded). If a stake is withdrawn from the pool, the position in the pool is lost. Unstaking can be done with a cooldown period of 7 days.

4.3 Creator adoption mining

To effectively balance the system, inflation through adoption mining is introduced as a key component of the protocol. With inflation, new tokens are added to the network at a rate determined by the protocol, and those tokens are then distributed throughout the ecosystem based on the distribution key.

Initial supply	100,000,000
Max supply	200,000,000

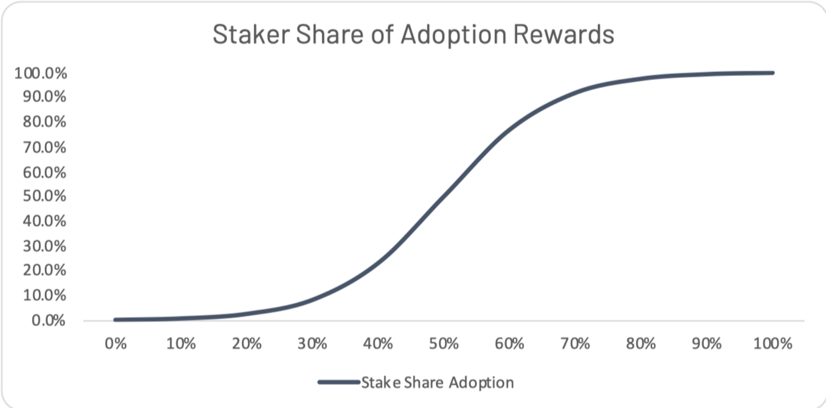
Creators are the underlying assets of the system and the token supply is increased by adoption i.e. when creators establish new pools.



A negative exponential curve is used where the cap is reached at infinite creators although practically 99.995% will be issued at 1 million creators.

New tokens are distributed to all ecosystem participants, albeit with a different ratio. A 20% share of the adoption issuance is retained by the founding team. The balance is shared with creators and stakers as follows.

The adoption distribution per pool is shared between creators and stakers depending on the global staking ratio. As staking increases, more inflation is attributable to the stakers and less to the creators.



The distribution to each creator pool is weighted by the number of tokens staked for each pool.

This incentivises creators to increase its pool size, as his creator pool TVL acts as a "hash rate" for the amount on issuance he gets distributed.

4.4 SubDAO Framework

By definition, a subDAO is akin to a specialized, miniature economy that interacts with a larger economy, which is the DAO itself. Sway introduces a SubDAO framework for creator pools where a decision-making structure is put in place for the creator and his community.

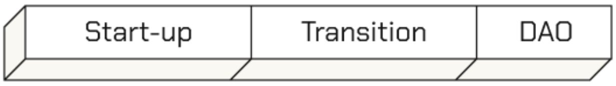
Each creator will have the ability to enable his own rules and conditions on the involvement of the community with his pool. A pool can have decision-making power over various activities, but most of all acts as the *social capital catalyst* for the creator.

A subDAO will be able to contribute to the creator, additionally incentivise him on successfully sold content, manage their own NFT collection, stake and borrow. The vote is proportional to the positions in the pool.

We are also assessing the option of allowing a creator pool subDAO to issue its own governance and/or creator tokens.

4.5 DAO Governance

The proposed governance through token is inline with the philosophy of the protocol in a future open metaverse. But initially a protocol-market fit needs to be established and to achieve that we propose three phases.



Start-up
Following lean methodologies, we act as an early-stage startup with no more than 20 people where all key decisions are made in a flat decision-making structure.

Transition
A DAO council is put in place for core tech decisions. The council is built from 5 members: 2 founding team members, 2 largest token holders and 1 outside/independent crypto expert. The outside expert is appointed by the vote of the majority token holder (1M+).

DAO
A full DAO is established once the we have reached the protocol-market fit and have achieved the metacreator economy milestone on our roadmap.

Governance issues to be voted upon by DAO members will revolve around:
- Technology implementations
- Product and project partnerships
- Governance structure

When grouped by holder type, the DAO will consist of five main categories of token holders:
- Founders
- Advisors
- Treasury
- Investors
- Community

The founding team will ensure regulatory compliance, with fair and equitable distribution of ownership, value and control.

4.6 SWAY token

SWAY is the native token of the SWAY protocol that is used to support various protocol-specific and governance tasks.

Creator pools genesis
Content creators establish individual pools for their NFTs by running a smart contract (gas prices are paid separately) and depositing an initial amount of SWAY tokens into the pool. These tokens are locked and can only be redeemed when there are no more positions staked in the pool (FILO method), while still earning rewards from staking like other participants.

Creator pools staking
SWAY tokens are used as the primary currency to stake with any particular pool. They can also work in combination with partner tokens up to 80/20 ratio (described above).

Revenue generation share
Staked SWAY tokens share in the revenue generated from their specific pools. Owning a position in the pool pays the rewards in native token and optionally WETH. Rewards are automatically compounded.

Creator adoption mining
Adoption mining generates new value that, by design, rewards participants and balances out the ecosystem. As described above, new tokens are minted with every new creator joining the platform. These tokens are then distributed to all stakeholders in the ecosystem based on the distribution key.

DAO Governance
SWAY holders will be able to vote on the protocol direction and its economic parameters, such as staking rewards and fees. The voting mechanism will facilitate community consensus on the vital decisions concerning the platform.

5. Tokenomics

The initial funding and token launch has been completed in Q4 2021. Token SWAY is available on Polygon with plans to move to BSC via bridge very soon.

Token contract address	0x262b8aa7542004f023b0eb02bc6b96350a02b728
Chain	Polygon

At the time of this whitepaper release, majority of the tokens are still with the company:

Allocated			
Category	**Percentage**	**Tokens**	**Available**
Creator Adoption Mining	50	100,000,000	100,000,000
Airdrop	10	20,000,000	20,000,000
Seed Round	5	10,000,000	*sold out*
Private Round	12	24,000,000	*sold out*
Reserves	7	14,000,000	14,000,000
Founders & Team	6	12,000,000	-
Advisors	4	8,000,000	-
Partnerships & Marketing	4	8,000,000	7,800,000
Liquidity	2	4,000,000	4,000,000

Creator Adoption Mining releases tokens based on active creators pool adoption, distribution is then based on token model function described above.

Airdrop tokens are used to incentivise users inside the ecosystem. One airdrop campaign has already concluded in Q3 2021, issuing <1,000,000 tokens. All the tokens have already been distributed.

Seed Round and **Private Round** have been sold out completely. Some of the investors participating are AlphaBit, Au21, LucidBlue Ventures and Launchpool. Vesting is done in 9 months.

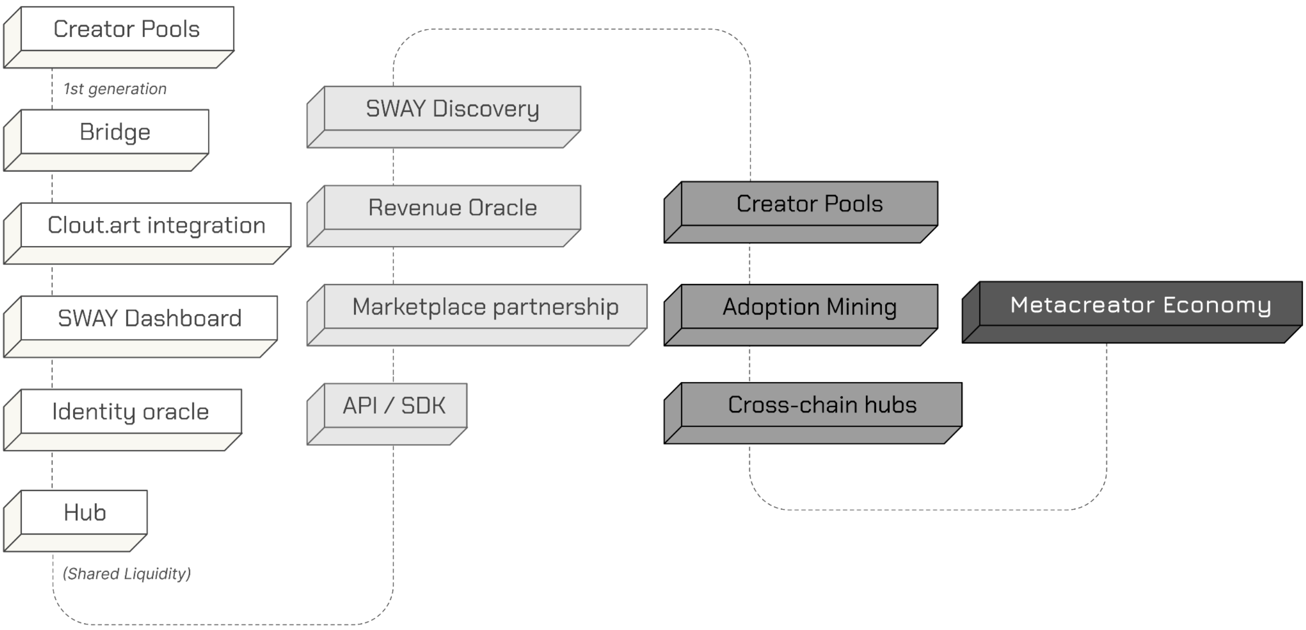
Reserves are locked for 12 month and afterwards the council or the DAO can vote about their allocation.

Founders & Team and **Advisors** are locked for 12 months and then have a 24 month vesting schedule.

Partnerships & Marketing unlock 2% for initial 3 months, afterwards linear monthly unlock for 18 months.

Liquidity is unlocked and available for exchanges from the launch date on. The company maintains a liquidity balance at all times.

6. Roadmap



6.1 The Basic Infrastructure – Q1

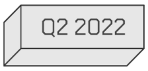
Q1 2022

With the introduction of the first generation of creator pools, already available at https://creatorspools.live we establish the foundation we will build on top of. The initial staking program is run by promotional staking APR and is aimed towards generating interest in the community and understanding the utility of $SWAY. Following the creator pools, we plan to establish a secure bridge that would initially work for Polygon-BSC cross-chain. The goal is to have a deployment-ready system in place so any further scaling would not require additional effort.

The Clout.art integration comes as the idea that initially spawned Sway and can add a lot of value for both. Creators will automatically receive their creator pool with a free first allocation of tokens to run their pool. All of this will be backed by a dashboard that will tap into the social capital potential based on the data we manage to gather.

Identity oracle is the bridge between Web2 and Web3, connecting to social media services and successfully pairing them with a wallet or ENS address. We plan to end Q1 with a core component called “Hub” that will allow creators to operate multiple creator pools as one and with shared liquidity.

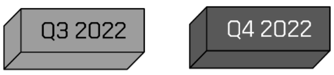
6.2 The Transition Phase – Q2



The second quarter will begin with an API and SDK library deployment that will easily work with any decentralized marketplace, allowing creator pools to be established for their users on the fly. This comes with several marketplace partnerships.

The revenue oracle is an important component that will eventually determine the amount of allowance taken from the wallet of the creator and automatic withdrawal of the revenue share into the creator pool.

6.2 The Expansion Phase – Q3 & Q4



We finally introduce the v1.0 of creator pools in Q3 and start releasing the token allocations from the adoption mining. Additionally we plan to establish hubs that also work cross-chain seamlessly.

The ultimate goal is the Metacreator economy. A set of principles and rules for creators that will build the creator economy of the metaverse. A polished interface that will sit on top of Sway Social, potentially catering to millions of creators and their fans.

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