# Token Engineering Simulations Model Design Document for seecoin

# By Tokenomia.pro

### Authors:

Łukasz Szymański - CEO Tokenomia.pro
Dawid Kubas - Lead Token Engineer Tokenomia.pro
Nikodem Szyszka - Analysis Tokenomia.pro
Katarzyna Opałek - Token Engineer Tokenomia.pro
Krzysztof Gierula - Token Engineer Tokenomia.pro
<a href="http://tokenomia.pro/">http://tokenomia.pro/</a>

This file is the result of SeeGame cooperation with Tokenomia.pro and its main objective is to present all economic aspects of the SeeGame project based on the materials provided and meetings held.

# Agenda

1. Requirement Analysis	5
1.1. Economic goals of the system	5
1.2. Assumptions	5
1.3. Questions to be tested in simulation	6
2. System overview	7
2.1. System assets	11
2.1.1. FIAT	12
2.1.2. \$seecoin Token	13
2.1.2.1. Tokenomics	13
2.1.2.1.1. Vesting based on time	15
1.1.1.1. Dynamic Vesting	17
2.1.2.2. Initial Supply	20
2.1.2.3. Market comparison	21
2.2. System mechanisms	23
2.2.1. Fee distribution	23
2.2.1.1. Mechanisms parameters	24
2.2.1.2. Mechanisms mathematical specification	
2.2.2. BuyBack&Burn \$seecoin.	26
2.2.2.1. Mechanisms mathematical specification	27
2.2.3. Staking	28
2.2.3.1. Mechanisms parameters	29
2.2.3.2. Mechanisms mathematical specification	30
2.2.4. Diamond Staking Rewards	32
2.2.4.1. Mechanisms parameters	
2.2.4.2. Mechanisms mathematical specification	
2.2.5. DAO	34
2.2.5.1. Mechanisms parameters	35
2.2.5.2. Mechanisms mathematical specification	36
2.2.6. System Coverage	41
2.2.6.1. Mechanisms parameters	42

2.2.6.2. Mechanisms mathematical specification	42
2.2.7. Watch2earn	44
2.2.7.1. Mechanisms parameters	45
2.2.7.2. Mechanisms mathematical specification	45
2.2.8. Boost to Watch2earn	48
2.2.8.1. Mechanisms parameters	48
2.2.8.2. Mechanisms mathematical specification	48
2.2.9. Stream2earn	50
2.2.9.1. Mechanisms mathematical specification	50
2.2.10. Inflation.	52
2.2.10.1. Mechanisms parameters	53
2.2.10.2. Mechanisms mathematical specification	53
2.2.11. Reserve Burn	55
2.2.11.1. Mechanisms mathematical specification	55
3. Visual System Mapping	57
3.1. Stock and flow model	57
4. Agents in System	59
4.1. Map of the agents	60
4.2. Summary of agents	61
4.3. List of all agents	62
SeeGame Team	62
Advertisers	63
Streamers	64
Viewers	66
Investors	67
Bronze \$seecoin Stakers	68
Silver \$seecoin Stakers	69
Gold \$seecoin Stakers	71
Diamond \$seecoin Stakers	72
Seecoin Speculators	73
Traditional Streaming Platforms	74
Competitive projects in web3	75
4.4. Agents Collusion	77
4.4.1. Summary of Agents Collusion	77
4.4.2. Connections between agents that can act against the SeeGame platform	80
4.4.3. How agents can play against each other - conflict of interest between agents	86

5. Research Insights	93
5.1. XCAD Network analysis	95
5.2. Script Network analysis	98
5.3. Verasity analysis	101
5.4. StoryFire analysis	
5.5. StreamCoin analysis	
5.6. Ritestream analysis	
5.7. AIOZ Network analysis	
5.8. Theta Network analysis	
6. Conclusion	108
6.1. Next step	
6.2. FAQ	109
6.3. Appendix	113
6.4. Lists of Tables	113
6.5. Lists of Figures	114
6.6. List of all mathematical formulas	117
6.7. Sources	118

# 1. Requirement Analysis

# 1.1. Economic goals of the system

In the process of creating a dynamic system, a key aspect is to define its objectives. The economic goal of the system, which is responsible for the flow of the system's financial assets, is of particular importance. Essentially, it's crucial that economic objectives are not only well-structured mathematically but also emphasize a focus on marketing and business aspects. This was a pivotal aspect of the SeeGame project's approach.

- Ensure stability of mechanisms regardless of the health of the system
- Continuity of payment of rewards in the Staking mechanism
- Monopoly- and manipulation-proof DAO system
- Generation of stable profits for project developers
- Inflation of no more than 10% on the assumed Total Supply

Achieving all of these goals will enable the project to develop steadily and across multiple levels.

# 1.2. Assumptions

The document focuses on economic aspects, resulting in the simplification or omission of some aspects of the system such as technical or legal aspects. Below is a list of all the assumptions on which this document was created:

- Stable regulatory environment that does not adversely impact the platform's operations.
- Standard market dynamics and typical user behavior as in similar web3 ecosystems.
- Any delays and operation times have been omitted.
- Adding third-party liquidity has not been assumed.

# 1.3. Questions to be tested in simulation

In this document, some proposed solutions are not the final version, just as some parameters may change. This is because the next step in the SeeGame x Tokenomia.pro collaboration is to validate the proposed solutions and parameters to select the best ones for the system. Question which should be tested in the simulation are recorded here:

- How does a low, medium, or high number of advertisers in the system affect the price of the \$seecoin token?
- How does a low, medium, or high number of viewers in the system affect the price of the \$seecoin token?
- How does a low, medium, or high number of stakers in the system affect the price of the \$seecoin token?
- How many tokens will be burned in the burn mechanism over one year, three years, and ten years?
- What impact does the end of vesting periods have on the price of the \$seecoin token?
- In which scenarios does inflation due to token domination rise above the expected value?
- What is the safe frequency of side-events, lotteries, and airdrops to avoid disrupting the economic part of the system?
- What frequency of boost-snake does not disrupt the reward distribution dynamics for viewers and does not exhaust the rewards pool?
- Under what assumptions about supply and demand does the price not fall below the listing price in the first year, three and ten years of the token's existence?
- What was the highest inflation observed?
- When did the system stop minting tokens?
- What was the highest deflation observed?
- How does an increase in the price of \$seecoin tokens influence the overall dynamics of the SeeGame platform, including reward distribution and economic stability?
- What is the average amount of \$seecoin tokens awarded to viewers for their participation, and how is this reward calculated based on different levels of loyalty program?
- What is the average amount of \$seecoin tokens awarded to stakers?

# 2. System overview

This section provides an overview of the system and outlines the key aspects that will be discussed in the document. The subsequent section offers detailed descriptions of each aspect of the system.

The SeeGame project realizes an innovative concept of creating a platform that connects advertisers, streamers, and their viewers. The platform offers financial rewards for both streamers (Stream2Earn) and viewers (Watch2Earn) in the form of \$seecoin tokens. \$seecoin is an integral part of the system, connecting all its participants and ensuring the flow of value. The value of rewards in \$seecoin for streamers and viewers is dependent on the payments from advertisers for advertisements.

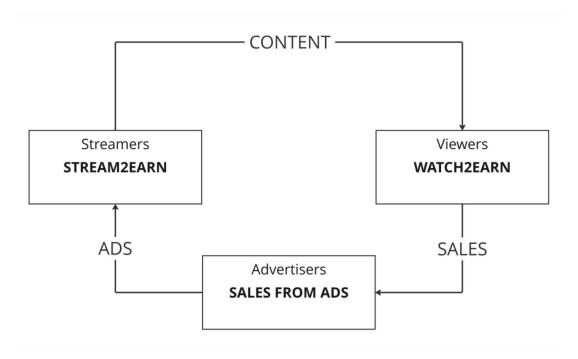


Figure 1 Agents in System

By purchasing advertising packages, advertisers introduce FIAT into the system. This FIAT is then allocated and distributed across various system objectives, including payments to streamers and viewers, staking rewards for stakers, contributions to the treasury pool, profits for the project creators, and a mechanism for burning tokens. This process ensures organic coverage for all tokens within the system, maintaining a balanced and sustainable ecosystem.

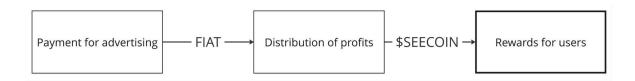


Figure 2 Payment Flow

The system includes four main loyalty program levels, encouraging users to allocate their \$seecoin to staking. Each of these four levels offers progressively higher maximum APRs and shorter time requirements for Watch2Earn rewards. Additionally, the Diamond level, which is accessible to the Top 10 largest stakers in the Gold group, guarantees regular participation in the profits of the SeeGame project.

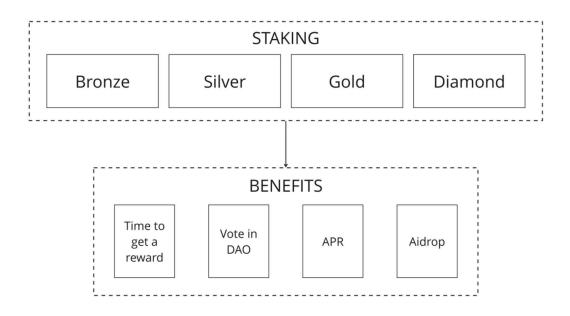


Figure 3 Staking Overview

Another benefit of participating in staking is the ability to vote in the DAO. To prevent any single participant or group from monopolizing the system, voting power is divided into different levels based on the amount staked. Additionally, to ensure fair representation, each level has its own formula for calculating voting power, taking into account the expected number of participants in each group.

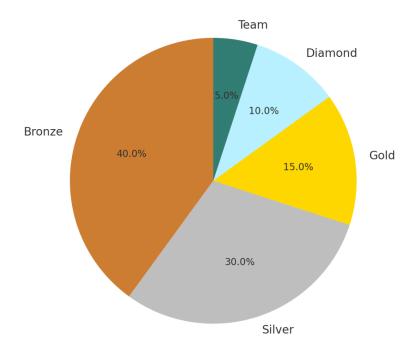


Figure 4 DAO Overview

The main goal of the system is to provide financial benefits to both streamers and viewers through the \$seecoin token. Viewers earn \$seecoin based on the time they spend on the platform and their staking level. The higher the staking level, the faster they earn rewards, encouraging them to reinvest their earnings. Streamers' earnings are directly linked to the earnings of their viewers, rewarding popular streamers and encouraging them to build a community with a significant amount of tokens staked.

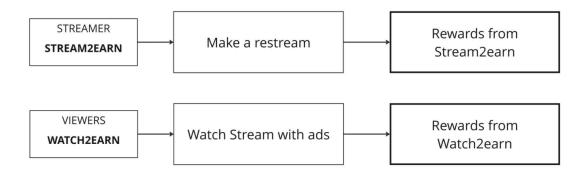


Figure 5 Rewards flow

The system is also resilient to temporary financial shortfalls from advertisers, ensuring the continuity of rewards for viewers and streamers. It includes a mechanism that regularly accumulates a financial reserve, which can be used during critical moments to support the platform. Additionally, if needed, the system can mint additional \$seecoin tokens to maintain the established community. This approach is designed to keep inflation at a predictable level while dynamically responding to changes within the system.

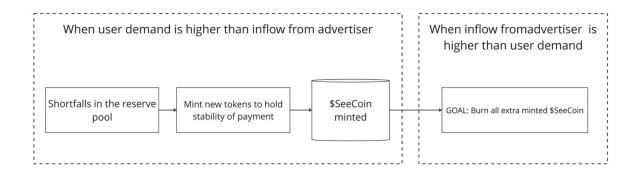


Figure 6 Inflation case

The SeeGame project system, embedded in the web3 space, effectively addresses the needs of all its agents, ensuring a stable flow of assets within the ecosystem. The implementation of the \$seecoin token provides financial rewards and motivates participation, thereby maintaining the necessary level of economic security. The system's mechanisms ensure organic growth, making it resilient to temporary disruptions and offering potential for long-term value appreciation.

# 2.1. System assets

Here, all assets in the system are defined. Assets include anything that can enter or exit the system through various mechanisms.

In the existing system, we can highlight two key assets:

- 1. FIAT
- 2. \$seecoin

Each of these assets has a different utility, which affects the correct functioning of the entire system. Additionally, the amount of FIAT positively influences the amount of \$seecoin, which can indirectly drive the amount of FIAT in the system, creating a Flywheel.

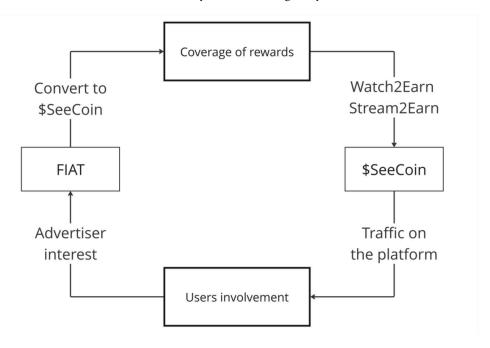


Figure 7 Assets Flywheel

### 2.1.1. FIAT

FIAT revenues for the system come directly from advertisers who pay in FIAT currencies for purchased advertising packages. Advertisers can purchase various advertising packages, selecting their target audience on the platform.

Payments in FIAT not only generate profit for the project creators but also directly impact the economic functioning of the SeeGame project. These payments provide rewards for streamers and viewers by converting a portion of the advertising revenue into \$seecoin tokens. This conversion happens directly on the market, which positively influences the token's price and other key metrics.

The process of dividing and converting FIAT into \$seecoin ensures the stable development of the system, meeting all its objectives. This enables the coverage of rewards in the staking pool, ensures a stable Watch2Earn and Stream2Earn process, and introduces deflation within the system. Additionally, part of the FIAT revenues build a Treasury pool secured in USDT, which can be used for organizing events or awarding prizes.

FIAT revenues are crucial for the system, as they indirectly or directly influence the operation of every mechanism within it. While the system is designed with mechanisms to maintain stability during short-term FIAT revenue shortages, prolonged shortages will negatively impact the system's health and the creators' profits. Therefore, it is critical to maintain high levels of advertising sales to advertisers to ensure the system's ongoing profitability.

### 2.1.2. \$seecoin Token

The \$seecoin token is the native and fundamental element of the SeeGame ecosystem. This token is transferable and exchangeable, initially available for trading on the SeeGame platform, where the exchange model will be based on an Automated Market Maker. It serves as a critical pillar of economic stability, being an integral part of various mechanisms that enhance the platform's functionality. The token will be used in the following aspects of the system:

- A source of rewards for streamers and viewers
- A source of project funding
- The main financial factor in the SeeGame incentive system
- A factor influencing the voting power within the DAO

The tokenomic presented is under discussion with the SeeGame team and is subject to change. The following version is a preliminary proposal.

### 2.1.2.1. Tokenomics

Understanding the context of the system in which the Token is embedded is crucial in properly designing the token distribution. That's why the \$seecoin Tokenomics is designed to meet all the needs of the SeeGame platform. The distribution of the \$seecoin token is crafted to ensure the long-term stability and growth of the \$seecoin platform, while promoting a fair and balanced allocation of resources among all stakeholders. The strategic distribution of \$seecoin tokens aims to protect investor interests, foster community engagement and boost the token's utility and value in the broader digital ecosystem.

Based on the market comparison (More) of tokenomic projects in a similar category, the following allocation plan for Token \$seecoin was created (table 1).

Table 1 Token Allocation

Pool	Price	Percentage of Allocation	Number of Tokens	% TGE	TGE Number of Tokens
Seed round	\$0,0100	18%	180 000 000	5%	9 000 000
Private round	\$0,0180	10%	100 000 000	5%	5 000 000
Launchpad	\$0,0267	3,0%	30 000 000	25%	7 500 000
Liquidity		10,0%	100 000 000	12%	12 000 000
Ecosystem		31,0%	310 000 000	3%	9 300 000
Team		10,0%	100 000 000	0%	0
Advisor		5,0%	50 000 000	0%	0
Staking Pool		5,0%	50 000 000	5%	2 500 000
Airdrop		3,0%	30 000 000	5%	1 500 000
Reserve		5,0%	50 000 000	0%	0
	•	100,0%	1 000 000 000		46 800 000

Funding information has been assumed based on discussions and is subject to change.

Table 2 Initial Metric

Listing Price	\$0,029		
Supply of SeCoin	1 000 000 000		

Initial Marketcap	\$1 357 200
FDV	\$29 000 000

Initial % Total Supply	4,68%
Initial % Investor	2,15%
Total sales pressure	\$623 500

Dollars to Liquidity	\$250 000
% Funding to Liquidity	5,68%
\$seecoin to Liquidity	8 620 689,66

Below is a description of each allocation round in the system:

- **Seed Round:** This includes the earliest investors in the project, who enter at the lowest price due to their early commitment and support.
- **Private Round:** This includes investors in the project, who enter at lower price due to their early commitment and support.

- **Launchpad Round:** Those investors bought into the project at the time of its launch, at a sale price equal to the listing price.
- **Liquidity:** Tokens allocated for providing liquidity to the project on various exchanges, ensuring smooth trading and stability.
- **Team Pool:** Tokens reserved for the project creators, recognizing their contribution and support in developing the platform.
- **Advisors:** A round of development strategies designed to gain support, knowledge and expertise.
- **Ecosystem:** Tokens set aside for future activities and initiatives within the SeeGame ecosystem, supporting its ongoing growth and development.
- **Staking Pool:** A rewards pool designated as compensation for users who have staked their tokens.
- **Airdrop:** The airdrop pool in tokenomics is designated for distributing tokens to platform members to encourage engagement, reward participation, and activity.
- **Reserve:** A reserve pool of tokens is established for distributing tokens to fields or purposes identified during the project's lifecycle.

At the time of writing, two different strategies related to the release of \$seecoin Tokens to the market are under consideration. Strategy one is based on releasing Tokens using strictly timed conditions. Strategy two is based not only on time but also on coverage in the system.

### 2.1.2.1.1. Vesting based on time

The traditional method of tokenomics involves distributing tokens based on a predefined schedule, ensuring transparency, predictability, and, crucially for web3 technology users, immutability. The \$seecoin token distribution is crafted to maintain the project's long-term stability and growth, while also providing an equitable and balanced allocation of resources among all participants. This strategic token allocation aims to protect investor interests, encourage community involvement, and enhance the token's utility and value within the broader digital ecosystem. Below is a token distribution structure that aligns with the project's goals and supports its sustainable operation over time (table 3).

Table 3 Static Vesting

Pool	Price	Percentage of Allocation	Number of Tokens	% TGE	TGE Number of Tokens	Cliff	Vesting
Seed round	\$0,0100	18,0%	180 000 000	5%	9 000 000	9	12
Private round	\$0,0180	10,0%	100 000 000	5%	5 000 000	6	16
Launchpad	\$0,0267	3,0%	30 000 000	25%	7 500 000	1	4
Liquidity		10,0%	100 000 000	12%	12 000 000	0	6
Ecosystem		31,0%	310 000 000	3%	9 300 000	3	60
Team		10,0%	100 000 000	0%	0	12	24
Advisor		5,0%	50 000 000	0%	0	12	24
Staking Pool		5,0%	50 000 000	5%	2 500 000	0	18
Airdrop		3,0%	30 000 000	5%	1 500 000	0	10
Reserve		5,0%	50 000 000	0%	0	2	40

Below is a chart showing the number of tokens released over time

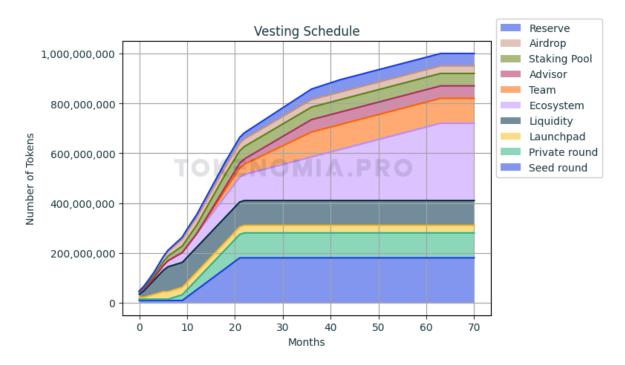


Figure 8 Vesting Schedule

### 1.1.1.1.1. Dynamic Vesting

The innovative and specially designed token release method for \$seecoin defines the number of tokens to be released based on the current state of the system. The implementation of dynamic token distribution aims to release an amount of tokens that corresponds to the system's current condition, thereby reducing the risk of excessive selling pressure during weaker periods of the system's performance. Conversely, this mechanism increases the expected number of released \$seecoin during periods of better financial health for the system. This approach allows the project to stand out from the competition and offers investors the possibility of faster token releases. Additionally, it demonstrates the project team's confidence in the system's success, as the system's weaker condition inversely affects the number of tokens released for the team as well.

The form of distribution will include Investor allocation rounds, Team as well as some Ecosystem related rounds. The mechanism uses an assumed linear vesting as the distribution base, however, this is only a base value. The real value of Tokens released will depend on the Coverage of the System (More), which represents the health of the system and has the following impact on individual rounds:

Table 4 Dynamic Vesting with different coverage value

Allocation Round	coverage < 1	coverage = 1	coverage > 1
Team, Advisors	Release fewer than planned	Release the planned	Release the planned
Seed Round, Launchpad	Release fewer than planned	Release the planned	Release more than planned
Staking Pool, Ranking, Tournaments, Airdrop	Release the planned	Release the planned	Release fewer than planned

For dynamic vesting, the same cliff applies as for linear vesting. Let  $t_i$  denote the moment when a certain tranche of tokens is paid out according to linear vesting, and  $tokens\_to\_vest_R^{linear}$  is the size of this tranche for allocation round R. We propose dynamic vesting based on the value of the metric determining the coverage level of tokens paid out as rewards to viewers and streamers. Then, at time t, the number of tokens to be paid out is calculated from the formula

 $tokens\_to\_vest_R^{dynamic}(t_i) = min\left(vesting\_function_R(coverage(t_i)) \cdot tokens\_to\_vest_R^{linear}, unvested\_tokens_R(t_i)\right)$ (1) Formula 1. Dynamic vesting.

where

- $tokens\_to\_vest_R^{dynamic}(t_i)$  is the number of \$seecoin tokens that will be released based on dynamic vesting at time  $t_i$  for allocation round R,
- $tokens\_to\_vest_R^{linear}$  is the number of \$seecoin tokens in one tranche of linear vesting for allocation round R,
- $unvested\_tokens_R(t_i)$  is the number of \$seecoin tokens that for a certain allocation round R have not yet been vested,
- $coverage(t_i)$  is the state of reward coverage for viewers and streamers at time  $t_i$ ,
- $vesting\_function_R(\cdot)$  is a function that modifies linear vesting based on coverage.

The number of withdrawals may increase or decrease, depending on the dynamics of token release. In either case, the vesting ends when *unvested\_tokens*<sub>R</sub> reaches zero, that is, all tokens are released.

Note:  $vesting\_function_R(\cdot)$  does not affect the number of tokens vested in TGE because the initial state of the system is  $coverage(t_0) = 1$ .

Depending on the type of allocation round, different dynamic vesting functions are used, below are the functions used for each round in the system

$$vesting\_function_{R_1}(c) = min(c, 1)$$
(2.1)

$$vesting\_function_{R_2}(c) = max(c, 1)$$
 (2.2)

$$vesting\_function_{R_2}(c) = c (2.3)$$

$$vesting\_function_{R_A}(c) = 1 (2.4)$$

Formula 2. Dynamic Vesting functions.

Depending on the allocation round, the following functions are used:

- $vesting\_function_{R_1}$  for the rounds: Team, Advisor
- $\bullet$  *vesting\_function*<sub>R\_</sub> for the rounds: Ecosystem, Airdrop
- $\bullet \quad \textit{vesting\_function}_{R_2}$  for the rounds: Seed round, Private round, Launchpad

ullet  $vesting\_function_{R_4}$  for the rounds: Liquidity, Staking pool, Reserve

The charts below show an example of token release when coverage remains consistently at the example levels.



Vesting Schedule Airdrop

30,000,000

25,000,000

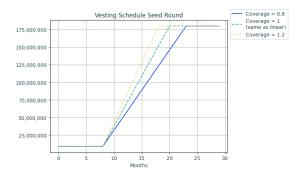
10,000,000

5,000,000

0 5 10 15 20 25 30

Figure 9 Dynamic Vesting Team

Figure 10 Dynamic Vesting Airdrop



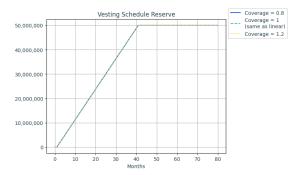


Figure 11 Dynamic Vesting Seed Round

Figure 12 Dynamic Vesting Reserve

# 2.1.2.2. Initial Supply

Based on the table with <u>Tokenomics</u> presented, the initial supply is set at 46 800 000 \$seecoin tokens, which represents 4.68% of the total supply. The determination of token supply involves estimating the company's or project's value and deciding on the percentage of tokens that will be sold to investors (and at what valuation). Based on this, the price per token and the total number of tokens to be emitted are established. Before the token is introduced to the public market, its value is negotiated between the creators and investors, often by comparing it with other projects in the same industry. Once available on the market, the token's price is influenced by market mechanisms such as a CEX with an order book or a DEX with an automated market-making model.

The value of the Initial Supply is motivated by two key aspects.

The first pertains to the financial interests of investors. Investors, especially those who have invested in the project at its early stages, expect the opportunity to achieve returns right after the project's launch. To reward investors for the funds provided and their trust, project creators should ensure the possibility of granting access to a portion of the purchased tokens from the project's inception. Providing access to tokens means enabling their use, use on the platform, staking, or sale, which implies they are not subject to vesting. Releasing part of the allocated token pool to investors at the time of listing is crucial in communicating with them and can be a decisive element in funding negotiations. However, it is important to remember that the Initial Supply should not be too high, as if investors hold too many tokens at the system's start and decide to cash in quickly for profit, their selling power could cause a drastic drop in the token's price.

The second aspect that defines Initial Supply is the tokens dedicated to the development of the ecosystem. These tokens are to be used internally within the system, for example to provide liquidity or an initial reward for Stakers. While liquidity tokens do not generate sales pressure, reward pool tokens can. Therefore, it is essential that these tokens are appropriately distributed to minimize excessive sales pressure initially, and are crucial for meeting the initial needs of the system, including marketing activities. The appropriate distribution of these tokens provides investors with the assurance that the team has a long-term plan for the development of the system. Initial Supply at 4.68% does not exceed market standards which, depending on the project, average between 5% and 20%.

# 2.1.2.3. Market comparison

The following is a comparative analysis of several projects that can be considered direct competitors to the SeeGame platform. The analysis focuses on parameters such as Max Supply, Market Cap, Fully Diluted Valuation and Listing Price:

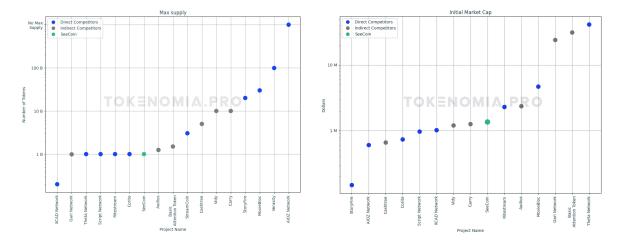


Figure 13 Max Supply of various project

Figure 14 Marketcap of various project

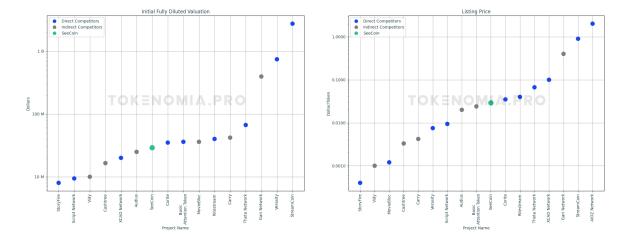


Figure 15 Initial FDV of various project

Figure 16 Listing price of various project

The data presented indicates that the SeeGame project effectively meets market standards based on the initial assumptions.

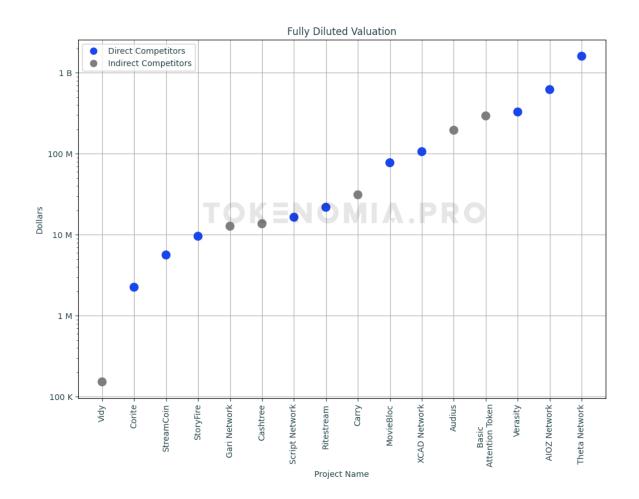


Figure 17 FDV of Various Projects

Notably, there is significant potential for value growth in this project. Competitor analysis reveals that SeeGame possesses unique features that could contribute to its market advantage and increase its sector share.

# 2.2. System mechanisms

Here are defined all the mechanisms in the system that are relevant to its goals. Mechanisms are possible interactions that occur on a set of one or more assets. In the system, we can distinguish the following mechanisms that affect the economics of the system.

### 2.2.1. Fee distribution

The distribution of capital from advertising payments plays a crucial role on the platform, ensuring not only profits for the creators but also overall system stability. When advertisers introduce FIAT into the system, they provide real backing for the tokens that will be distributed to users through the Watch2Earn, Stream2Earn and Staking mechanisms. This creates an opportunity to generate organic demand for the \$seecoin token, independent of speculative aspects in the secondary market. The revenue from advertising sales is divided into five key pools:

- Profits for project creators
- Pool for payments to streamers and viewers
- Pool for staking rewards
- Pool for building the Treasury in USDT
- Pool for buyback and burn

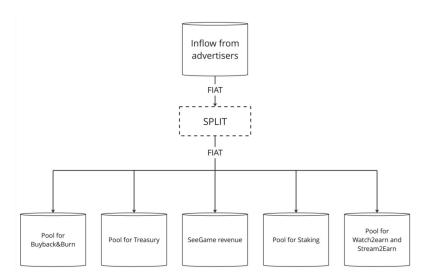


Figure 18 Inflow Split

This structure ensures that the system remains balanced and sustainable while providing value to all participants.

# 2.2.1.1. Mechanisms parameters

Table 5 The table below defines the parameters of the Fee distribution mechanism.

Parameter	Description	Value
burn_percentage	Parameter that determines what portion of income will be transferred to the BuyBack&Burn mechanism	0.001
treasury_percenatge	Parameter specifying the portion of income that will be allocated to the Security Treasure pool	0.05
rewards_percentage	Parameter that defines what portion of the income will be used to purchase \$seecoin for rewards for viewers and streamers	0.5
staking_percentage	Parameter specifying the portion of the income will be used to purchase \$seecoin for rewards for Staking Rewards pool	0.1
revenue_percentage	Parameter that determines what portion of income will be transferred to SeeGame as revenue	0.349

The values above should add up to one. Based on the above parameters, the mathematical specification of the mechanism is defined.

# 2.2.1.2. Mechanisms mathematical specification

The distribution of income into individual ones is defined by the following vector of parameters

Formula 3. Income Distribution Vector.

where

- burn\_percentage is a parameter that determines what portion of income will be transferred to the BuyBack&Burn mechanism,
- *treasury\_percenatge* is a parameter specifying the portion of income that will be allocated to the Security Treasure pool,
- rewards\_percentage is a parameter that defines what portion of the income will be used to purchase \$seecoin for rewards for viewers and streamers,

### TOKENOMIA.PRO

- *staking\_percentage* is a parameter specifying the portion of the income will be used to purchase \$seecoin for rewards for Staking Rewards pool,
- revenue\_percentage is a parameter that determines what portion of income will be transferred to SeeGame as revenue.

Based on the parameter thus determined, revenue from advertiser at time t is allocated to the various purposes of the system

$$\begin{bmatrix} income\_burn(t) \\ income\_treasury(t) \\ income\_rewards(t) \\ income\_staking(t) \\ income\_revenue(t) \end{bmatrix} = income\_distribution \cdot income(t)$$

$$(4)$$

Formula 4. Income Distribution.

### where

- *income\_burn(t)* is the number of FIAT that will be transferred to the BuyBack&Burn mechanism in given time *t*,
- *income\_treasury(t)* is the number of FIAT that will be allocated to the Security Treasure pool in given time *t*,
- *income\_rewards*(*t*) is the number of FIAT that will be used to purchase \$seecoin for rewards for viewers and streamers in given time *t*,
- *income\_staking(t)* is the number of FIAT that will be used to purchase \$seecoin for rewards for Staking Rewards pool in given time *t*,
- *income\_revenue(t)* is the number of FIAT that will be transferred to SeeGame as revenue in given time *t*.

# 2.2.2. BuyBack&Burn \$seecoin

The mechanism of Buying&back \$seecoin tokens from the market using a portion of the funds obtained from advertising sales aims to reduce the supply of \$seecoin through mild deflation, which is positively perceived by both investors and the community.

\$seecoin tokens can be bought back from the market to increase the token's valuation, but project creators may also decide to purchase \$seecoin through Over-The-Counter (OTC) methods from investors, which reduces token selling pressure. Once the FIAT is converted to \$seecoin Tokens, the Tokens are burned permanently by being sent to a zero address, reducing the supply of token.

The conversion of FIAT funds to \$seecoin tokens does not need to happen automatically. The SeeGame team can use this mechanism as a marketing tool and conduct campaigns based on token burn events.

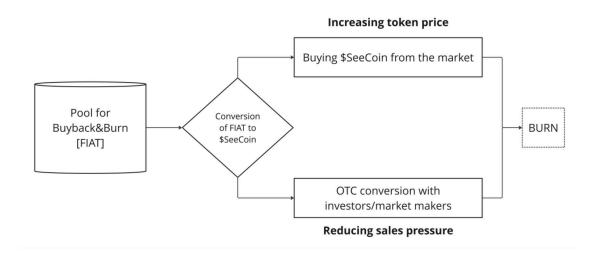


Figure 19 BuyBack&Burn

The percentage value of tokens burned may change based on economic simulations and future DAO decisions.

# 2.2.2.1. Mechanisms mathematical specification

Let  $t_0$  denote the start of the system and  $t_i \, \forall i>0$  the last moment at which the purchase of tokens from the market was made and burned, at time  $t_{i+1}$  when the next purchase of tokens from the market is made for burning, the number of funds is described by the following formula

$$buyback(t_{i+1}) = \sum_{t_i \le t < t_{i+1}} income\_burn(t)$$
 (5)

Formula 5. BuyBack.

where

- $buyback(t_{i+1})$  denotes the number of FIAT allocated to buy \$seecoin tokens and burn at a time  $t_{i+1}$ ,
- *income\_burn*(*t*) is the number of Fiat that will be transferred to the BuyBack&Burn mechanism in given time *t*,

The funds will be transferred to BuyBack \$seecoin tokens from the market and burn them.

# 2.2.3. Staking

The staking mechanism is an extensive, multi-layered loyalty program designed for all token holders in the system. The primary motivation of this system is to freeze as large a percentage of the supply as possible, stabilizing the price of the \$seecoin token.

User motivation to stay on the platform extends beyond daily rewards in the form of \$seecoin tokens. By staking, users can also participate in the DAO, influencing platform decisions (More). Higher staking levels allow users to earn rewards faster through the Watch2Earn mechanism (More). Staking is divided into four levels: Bronze, Silver, Gold, and Diamond. Each level offers additional benefits for staking a certain amount of tokens, enhancing the staker's experience and conditions within the SeeGame system.

Table 6 Staking Tier

	Tier			
	Bronze	Silver	Gold	Diamond
Requirement	1 - 30.000 \$seecoin	30.000 - 100.000 \$seecoin	+100.000 \$seecoin	TOP 10 Gold Staker
APR	6%	12%	24%	24%
Time of Rewards	Every 60 min	Every 40 min	Every 20 min	Every 20 min
Benefits	Vote in DAO	Vote in DAO	Vote in DAO Airdrops	Vote in DAO Airdrops Shares profits from platform

Streamers' earnings are directly tied to the earnings of their viewers. This provides an incentive for streamers to encourage their community to stake tokens, as it boosts their own rewards.

Staking rewards earned by every staker are automatically added to the pool of staked tokens, leveraging the power of compound interest and maximizing stakers' profits while minimizing selling pressure. Every staker has the option to exit staking at any time without any penalties; however, this results in the loss of all associated privileges. The withdrawal period for funds from staking is set at 14 days.

# 2.2.3.1. Mechanisms parameters

Table 7 The table below defines the parameters of the Staking mechanism.

Parameter	Description	Value
threshold <sub>silver</sub>	Parameter that determines how many minimum tokens one should have in staking to be in Silver tier.	30 000 \$seecoin
$threshold_{gold}$	Parameter that determines how many minimum tokens one should have in staking to be in Gold tier.	100 000 \$seecoin
increment silver	Parameter defining the pool share increment factor for stakers of the silver tier. (value 2 means that apr in silver tier is twice higher than in bronze tier)	2
$increment_{gold}$	Parameter defining the pool share increment factor for stakers of the gold tier. (value 4 means that apr in gold tier is four times higher than in bronze tier)	4
stability_factor	Parameter controlling the stability of rewards in staking in the absence of revenue to the staking pool. The higher the value, the smaller the daily rewards, but the longer the depletion time of the reward pool.	7
max_reward	Parameter that specifies the number of \$seecoin tokens per pool share annually. (value 0.06 means that max apr in bronze tier is approximately 6% annually)	0.06 \$seecoin/sha re

Based on the above parameters, the mathematical specification of the mechanism is defined.

The staking mechanism is based on the distribution of shares in the Staking Rewards pool. These shares are allocated based on the number of tokens in the staking and the staking tier. Let S stand for a certain user who has locked his tokens in staking then number of shares in Staking Rewards pool of this staker is calculated as follows

$$staking\_shares_S = \begin{cases} tokens\_in\_stake_S & if tokens\_in\_stake_S \in (0, threshold_{silver}) \\ tokens\_in\_stake_S \cdot increment_{silver} & if tokens\_in\_stake_S \in [threshold_{silver}, threshold_{gold}) \\ tokens\_in\_stake_S \cdot increment_{gold} & if tokens\_in\_stake_S \in [threshold_{gold}, \infty) \end{cases} \tag{6}$$

Formula 6. Staking Rewards pool shares.

where

- *staking\_shares*<sub>s</sub> is the number of staker S shares in Staking Reward pool,
- ullet tokens\_in\_stake $_{S}$  is the number of \$seecoin tokens of staker S locked in staking,
- ullet threshold silver, threshold gold are parameters defining thresholds of silver and gold tiers in staking, respectively,
- *increment* silver, *increment* gold are parameters defining the pool share increment factor for stakers of the silver and gold tiers, respectively.

Based on the allocated shares, daily rewards are given to stakers which automatically include in the number of tokens they have locked in staking. For a certain staker S, the rewards are calculated according to the formula

$$staking\_rewards_S = staking\_shares_S \cdot min \left( \frac{staking\_rewards\_pool}{stability\_factor \cdot \sum\limits_{s \in Stakers} staking\_shares_S}, \frac{max\_reward}{365} \right)$$
 (7)

Formula 7. Staking Rewards.

where

- *staking\_rewards*<sub>s</sub> is the number of \$seecoin tokens as a reward for the staker *S*,
- stability\_factor is a parameter that stabilizes the amount of staking rewards,
- *staking\_shares*<sub>S</sub> is the number of staker S shares in Staking Reward pool,
- *staking\_rewards\_pool* is the number of \$seecoin tokens in the staking reward pool,
- Stakers is a list of all users who have tokens in staking,
- max\_reward is a parameter that specifies the number of \$seecoin tokens per pool share annually.

Table 8 Example:  $max\_reward = 0.06$  it correspond with 6% Max APR in Bronze staking

	Max APR	Shares Increment	Staking Rewards Pool	Daily Reward per share
Bronze	6.00%	1.0	100,000	0.000164
Silver	12.00%	2.0		
Gold	24.00%	4.0		

	Tokens in stake	Shares	Daily Rewards [seecoin]	APR
Bronze	1,000,000	1,000,000	164.38356	6.00%
Silver	1,000,000	2,000,000	328.76712	12.00%
Gold	1,000,000	4,000,000	657.5342	24.00%

More: [External][SeeCoin] Staking

# 2.2.4. Diamond Staking Rewards

The highest staking level, Diamond, includes the top 10 largest stakers from the Gold tier, representing the most engaged Stakers in the SeeGame project. This level commits the project team to regularly share profits earned from the platform, recognizing and appreciating the group of the most committed stakers.

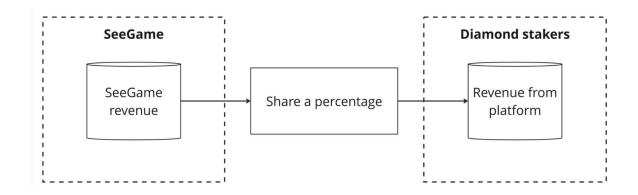


Figure 20 Diamond profit

The number of rewarded participants covered by the Diamond status can be adjusted by the DAO as the system evolves. In addition, the first reward will be distributed after the accounting settlement of the SeeGame project.

### 2.2.4.1. Mechanisms parameters

Table 9 The table below defines the parameters of the Diamond Staking Rewards mechanism.

Parameter	Description	Value
diamond_revenue _percentage	Parameter defining what percentage of revenue for SeeGame will be distributed to Diamond stakers (value 0.05 means 5% of revenue is transferred to Diamond stakers)	0.05

Based on the above parameter, the mathematical specification of the mechanism is defined.

# 2.2.4.2. Mechanisms mathematical specification

Diamond stakers receive a portion of SeeGame revenue in addition to their profit in \$seecoin tokens. However, this additional form of remuneration does not take place on a daily basis but only at predetermined periods of time. Let  $t_0$  denote the start of the system, and  $t_j$ ,  $t_{j+1} \ \forall j>0$  denote moments in time of consecutive payouts, then the number of rewards for a single Diamond staker at time  $t_{j+1}$  is calculated from the formula

$$diamond\_revenue(t_{j+1}) = \frac{diamond\_revenue\_percentage}{diamond\_stakers(t_{j+1})} \cdot \sum_{t_j \le t < t_{j+1}} income\_revenue(t)$$
 (8)

Formula 8. Diamond Revenue.

where

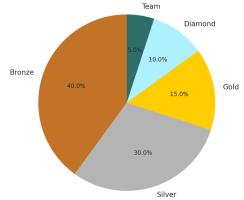
- $diamond\_revenue(t_{j+1})$  is the number of FIAT for a single Diamond staker paid out at time  $t_{j+1}$ ,
- diamond\_revenue\_percentage is a parameter defining what percentage of revenue for SeeGame will be distributed to Diamond stakers,
- $diamond\_stakers(t_{j+1})$  is the number of diamond stakers at time  $t_{j+1}$ ,
- *income\_revenue(t)* is the number of FIAT that was transferred to SeeGame as revenue in given time t.

### 2.2.5. DAO

A Decentralized Autonomous Organization (DAO) is a crucial element in creating web3 projects. It demonstrates that the creators are open to the voice of the community and want to give them the ability to make decisions about the project's future. It is essential that this mechanism is resistant to monopolization by a single agent while being fair to every participant in the system.

The voting power system in the SeeGame DAO is based on two factors. The first factor is being a member of a specific level in the stakers' loyalty program. Each group in the system is assigned a nominal voting power, which is the votes of all its members. The distribution of voting power among the different groups is as follows:

- Bronze Stakers 40%
- Silver Stakers 30%
- Gold Stakers 15%
- Diamond Stakers 10%
- Team 5%



This distribution aims to account for the size of each group as well as their level of engagement, which directly correlates with the number of staked tokens.

The second factor that directly influences the voting power of an individual wallet within each group is the specific formula used to calculate voting power. Due to the different characteristics and sizes of each group, the formula for calculating voting power varies for each group.

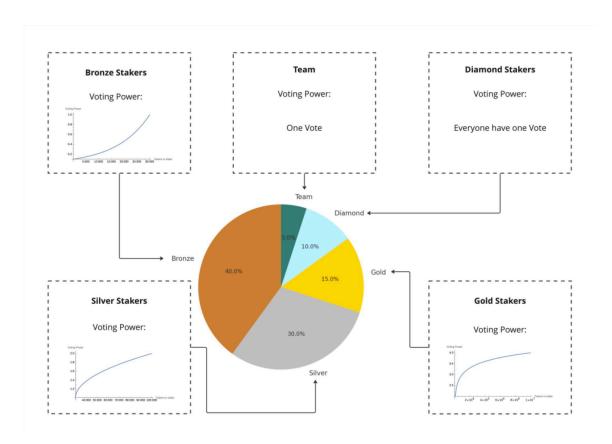


Figure 21 Voting power Scheme

In addition to calculating voting power, it is essential to consider user engagement in voting. For this purpose, the Conviction Voting mechanism has been implemented, which increases voting power over time. This mechanism aims to strengthen the votes of users who support a given proposal for a long and uninterrupted period.

This means that changing the proposal a user votes for resets their accumulated votes. This mechanism particularly rewards users who voted for a proposal right at the start of the voting process and maintained their support until the voting closes. By doing so, Conviction Voting promotes stability and long-term support, allowing for more thoughtful and balanced decisions within the system.

We recommend that the voting period should not exceed the period for leaving Staking (currently 14 days) to avoid additional complications, attacks and attempts to manipulate the DAO system. The voting system should also be public, further engaging communities.

# 2.2.5.1. Mechanisms parameters

The voting mechanism in the DAO is based on a division into staking tiers and a team decision. The final decision is based on the results of voting in each of these groups separately.

Table 10 The voting power of each group is described by the following parameters.

Parameter	Description	Value
bronze_tier_voting_power	Parameter that determines what percentage of the final decision is the Bronze stakers vote.	40%
silver_tier_voting_power	Parameter that determines what percentage of the final decision is the Silver stakers vote.	30%
gold_tier_voting_power	Parameter that determines what percentage of the final decision is the Gold stakers vote.	15%
diamond_tier _voting_power	Parameter that determines what percentage of the final decision is the Diamond stakers vote.	10%
team_voting_power	Parameter that determines what percentage of the final decision is the Team vote.	5%

Parameters above refer to the participation in the final decision of whole groups of stakers, individual groups have different ways of counting the voting power within them.

# 2.2.5.2. Mechanisms mathematical specification

Bronze stakers:

The voting result of each group is calculated separately. The voting power of a single staker S is calculated as follows

$$voting\_power_{bronze}(S) = 0.1 \cdot 10^{tokens\_in\_stake_S/threshold_{silver}}$$
(9.1)

$$voting\_power_{silver}(S) = 1 + \sqrt{\frac{tokens\_in\_stake_S - threshold_{silver}}{threshold_{gold} - threshold_{silver}}}$$
(9.2)

$$voting\_power_{gold}(S) = 2 + log_{10}\left(\frac{tokens\_in\_stake_S}{threshold_{gold}}\right) \tag{9.3}$$

Formula 9. Voting power.

where

- voting\_power to stake stake staker staker staker staker staker staker.
- voting\_power<sub>silver</sub>(S) is Silver staker S voting power,
- voting\_power<sub>gold</sub>(S) is Gold staker S voting power,

- ullet  $tokens\_in\_stake_S$  is the number of staker S \$seecoin tokens locked in staking,
- threshold silver, threshold gold are a parameter specifying the threshold number of seecoin tokens to be in the Silver staking tier and the Gold tier, respectively.

The chart below shows the bronze voting power depending on number of \$seecoin tokens in staking for the parameter  $threshold_{silver} = 30\,000$ .

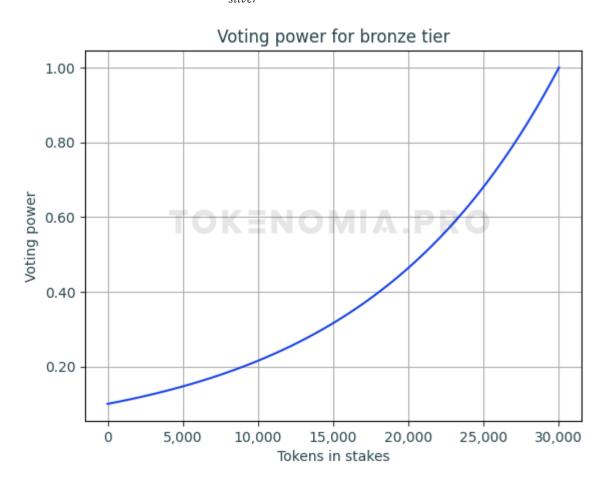


Figure 22 Voting power for Bronze Tier

The chart below shows the silver voting power depending on number of \$seecoin tokens in staking for the parameters  $threshold_{silver} = 30\,000$ ,  $threshold_{gold} = 100\,000$ .

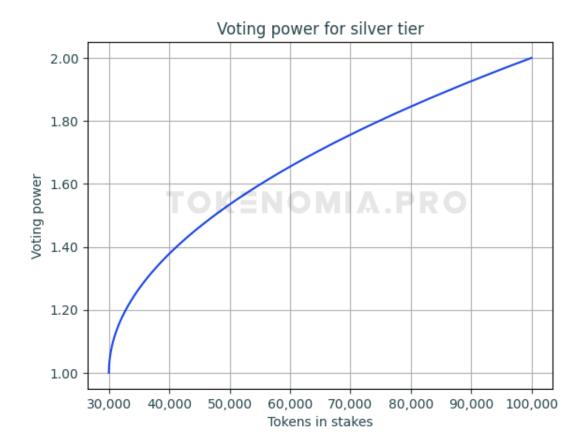


Figure 23 Voting power for Silver Tier

The chart below shows the gold voting power depending on number of \$seecoin tokens in staking for the parameter  $threshold_{gold}=100~000$  .

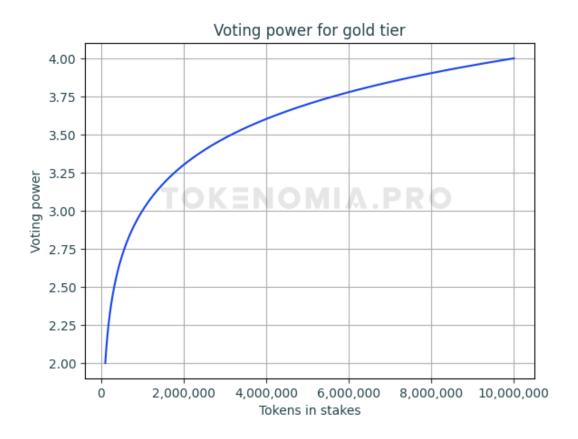


Figure 24 Voting power for Gold Tier

## Diamond stakers:

Diamond stakers have the same voting power in their group not depending on the number of \$seecoin tokens locked in staking.

In the proposed method of calculating voting power, it is necessary to implement a feedback loop to change the voting power depending on the other votes from each group. When using voting platforms (e.g. <u>Snapshot</u>), such a solution will not always be possible. For this purpose, an additional formula was derived to calculate the voting strength without the need to implement feedback. The interpretation of this formula does not take into account the division of users into different levels of Staking, based solely on the number of Tokens of the individual users.

Based on the component functions defined above, the universal power calculation function is defined as follows

$$voting\_power(S) = \begin{cases} voting\_power_{bronze}(S) & if \ tokens\_in\_stake_S \in (0, threshold_{silver}) \\ voting\_power_{silver}(S) & if \ tokens\_in\_stake_S \in [threshold_{silver}, threshold_{gold}) \\ voting\_power_{gold}(S) & if \ tokens\_in\_stake_S \in [threshold_{gold}, \infty) \end{cases}$$
 (10)

Formula 10. Voting power function.

where

- *voting\_power* <sub>bronze</sub> (S) is staker S voting power,
- tokens\_in\_stake s is the number of staker S \$seecoin tokens locked in staking,
- threshold silver is a parameter specifying the threshold number of \$seecoin tokens to be in the Silver staking tier,
- voting\_power<sub>silver</sub>(S) is staker S voting power,
- tokens\_in\_stake s is the number of staker S \$seecoin tokens locked in staking,
- threshold silver, threshold gold are a parameter specifying the threshold number of seecoin tokens to be in the Silver staking tier and the Gold tier, respectively,
- voting\_power gold (S) is staker S voting power,
- ullet tokens\_in\_stake $_{S}$  is the number of staker S \$seecoin tokens locked in staking,
- $threshold_{gold}$  is a parameter specifying the threshold number of \$seecoin tokens to be in the Gold staking tier.

Note: In this case, Diamond stakers have voting power counted the same as Gold stakers.

In addition to the function that calculates voting power, a function implementing conviction voting has been defined. This function determines what proportion of the maximum voting power, calculated using Formula 10, a given staker has, depending on the time since the decision was made by them. Let t denote the time since the vote was given, then

$$conviction\_voting(t) = 100^{(t-voting\_duration)/voting\_duration}$$
(11)

Formula 11. Conviction voting.

where

- *convition\_voting(t)* is proportion of the maximum voting power depending on the time since the decision was made,
- *voting\_duration* is the duration of the vote.

# 2.2.6. System Coverage

System Coverage is a metric that determines the health of the system based on the amount of \$seecoin distributed to users compared and the amount of \$seecoin obtained from the conversion of funds from advertisers. This metric directly informs the project creators about the current financial coverage of issued rewards and the amount of reserves available for payments in the Watch2Earn and Stream2Earn systems.

The long-term surplus of funds from advertisers relative to the token supply generated by Watch2Earn and Stream2Earn results in a **coverage value** > 1. The condition represents the good health of the system, where there is a supply of \$seecoin in the Reserve Pool, there is no inflation in the system due to the mint of additional \$seecoin and any inflows into the system regularly build up the reserve. This is the most desirable situation for the system.

The opposite situation is one in which funds from advertisers are less in relation to the token supply generated by Watch2Earn and Stream2Earn resulting in a **coverage value** < 1. This condition means that there are no reserves in the Reserve Pool in the system and inflation has occurred due to the mint of additional \$seecoin to maintain regular payments. Proceeds to the system will be regularly allocated to cover the lack of coverage of issued tokens by immediately Burn all \$seecoin going into the Reserve Pool. This is a state of the system which, if maintained, could negatively impact the system.

A situation where **coverage is equal to 1** is only a temporary situation that indicates a change in the health of the system. It is a situation where all Tokens issued to users come directly from funds received from advertisers. There is no \$seecoin token inflation in the system and the Reserve Pool has no reserves.

The implemented control metric not only helps manage risk and the system's health but also has a tangible impact on the functioning of internal mechanisms. The maximum reward paid to platform users through the Watch2Earn and Stream2Earn mechanisms is directly dependent on this metric. This ensures that in times of weaker system health, the price of \$seecoin is not weakened by excessive supply. Additionally, the value of tokens released in the dynamic vesting model (More) is directly influenced by the Coverage metric, positively affecting the adjustment of selling pressure to the current state of the system.

# 2.2.6.1. Mechanisms parameters

Table 11 The table below defines the parameters of the Coverage mechanism.

Parameter	Description	Value
rewards_portion	Parameters specifying the proportion of tokens income to the rewards pool will be allocated for viewers.	0.6
rewards_portion streamer	Parameters determining the proportion of tokens income to the rewards pool will be allocated for streamers.	0.3
rewards_portion reserve	Parameters specifying the proportion of tokens income to the rewards pool will be allocated as reserve.	0.1

The values above should add up to one. Based on the above parameters, the mathematical specification of the mechanism is defined.

# 2.2.6.2. Mechanisms mathematical specification

Income from advertisers as a result of the Fee Distribution ( $\underline{\text{More}}$ ) mechanism feeds the various pools in the system, in particular the reward pool for viewers and streamers.  $income\_rewards(t)$  denotes the number of FIAT of outflows from advertisers allocated for the repurchase of \$seecoin from the market. The purchased tokens  $tokens\_rewards\_income(t)$  are then distributed into three pools as follows

```
tokens\_rewards\_income_{viewers}(t) = rewards\_portion_{viewers} \cdot tokens\_rewards\_income(t)  (12.1) tokens\_rewards\_income_{streamers}(t) = rewards\_portion_{streamers} \cdot tokens\_rewards\_income(t)  (12.2) tokens\_rewards\_income_{reserve}(t) = rewards\_portion_{reserve} \cdot tokens\_rewards\_income(t)  (12.3)
```

Formula 12. Rewards pools.

#### where

- tokens\_rewards\_income viewers (t), tokens\_rewards\_income streamers (t), tokens\_rewards\_income time t to the reward pools for viewers, streamers and reserve, respectively,
- rewards\_portion rewards\_portion reserve are parameters specifying the proportion in which tokens are divided into individual pools,

• *tokens\_rewards\_income(t)* is the number of purchased \$seecoin tokens for viewers and streamers rewards at given time *t*.

Based on the number of tokens that have been transferred for rewards and the number of tokens distributed as rewards, the metric of reward coverage in the system is defined as follows

$$coverage(T) = \begin{cases} \frac{\sum\limits_{0 \le t \le T} tokens\_rewards\_income(t)}{\sum\limits_{0 \le t \le T} rewards\_distributed(t)} & if \sum\limits_{0 \le t \le T} rewards\_distributed(t) \neq 0\\ 1 & if \sum\limits_{0 \le t \le T} rewards\_distributed(t) = 0 \end{cases}$$

$$(13)$$

Formula 13. Coverage.

where

- *coverage*(*T*) is level of reward coverage for viewers and streamers at the time of the *T*,
- *tokens\_rewards\_income(t)* is the number of purchased \$seecoin tokens for viewers and streamers rewards at given time *t*,
- $rewards\_distributed(t)$  is the number of distributed \$seecoin tokens for viewers and streamers at given time t.

Below is an example of how the Inflation (More) and Reserve Burn (More) mechanisms work, along with the Coverage metric.

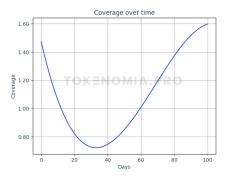


Figure 25 Coverage over time.



Figure 26 Rewards Reserve and Minted Inflation.

#### 2.2.7. Watch2earn

The main mechanism of the SeeGame platform, providing financial rewards to users watching streams in the form of \$seecoin tokens, plays a crucial role in encouraging user participation. This mechanism is a pillar of the entire ecosystem, making it essential for this system to operate continuously and reliably. Maintaining its attractiveness and building community engagement is paramount for the platform's success.

The system allows users to earn \$seecoin tokens by watching streams for a specified amount of time. As users watch, a progress bar tracks their progress toward earning a reward. Once the required time has passed, they receive their \$seecoin tokens. While watching the streams, users are shown advertisements. These ads are purchased by advertisers, and the revenue generated from these ads funds the rewards given to users. This means that during the waiting period for their reward, users will see advertisements, which directly supports the platform's reward system.

Users can reduce the reward accumulation time by participating in the loyalty program. A larger amount of staked tokens allows for a shorter waiting period for rewards (More). This incentivizes users to purchase and stake \$seecoin tokens, accelerating their reward acquisition and consequently increasing their total rewards.

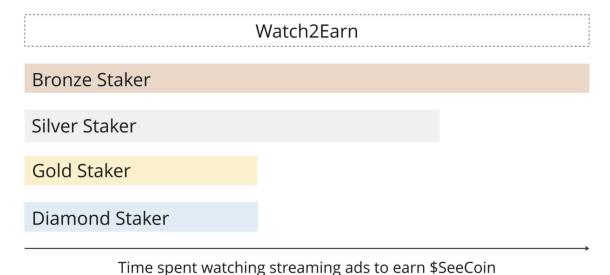


Figure 27 Watch2Earn

The size of the reward in \$seecoin for the user is changeable over time, but each user receives the same size of rewards at any given moment. This reward is calculated based on the amount of \$seecoin in the pool relative to the number of advertisements to be displayed in the system.

However, the reward size is capped by the Threshold Reward. In the event of interruptions in payments from advertisers, this mechanism continues to function smoothly, utilizing the Inflation mechanism (More) to fund the rewards.

## 2.2.7.1. Mechanisms parameters

Table 12 The table below defines the parameters of the Watch2earn mechanism.

Parameter	Description	Value
base_reward_value	Parameter specifying the maximum value of the reward. This parameter should satisfy the condition Formula  15. Base reward value condition.	

Based on the above parameters, the mathematical specification of the mechanism is defined.

## 2.2.7.2. Mechanisms mathematical specification

The threshold reward for viewers is calculated based on the current price of the \$seecoin token, and it is a cap on the maximum value of the reward viewers can receive. Let *V* denote single viewer, than threshold reward is calculated using the formula

$$reward_{V}^{threshold}(t) = \frac{base\_reward\_value}{token\_price(t)} \cdot \frac{1}{boost\_increment}$$
 (14)

Formula 14. Threshold Reward for viewers.

where

- $reward_V^{threshold}(t)$  is the number of \$seecoin tokens as a maximum single reward for viewer V,
- base\_reward\_value is a parameter specifying the maximum value of the reward,
- *token\_price*(*t*) is the current price of the \$seecoin token,
- boost\_increment is a parameter specifying the increase in reward for completing an additional task (More).

The graph below shows the  $reward_V^{threshold}$  depending on the price of the token for the example values of the parameter  $base\_reward\_value$ .



Figure 28 Rewards Threshold base on token price.

To ensure the stability of the system, parameter *base\_reward\_value* should meet the following condition

 $base\_reward\_value < lowest\_ad\_price \cdot rewards\_percentage \cdot rewards\_portion_{viewers}$  (15)

Formula 15. Base reward value condition.

where

- base\_reward\_value is a parameter specifying the maximum value of the reward,
- *lowest\_ad\_price* is a value expressed in FIAT that determines the lowest price at which an advertiser can purchase single ad,
- rewards\_percentage is a parameter that defines what portion of the income will be used to purchase \$seecoin for rewards for viewers and streamers,
- rewards\_portion viewers is a parameter specifying the proportion in which tokens are divided into viewers rewards pool.

The final reward base depends on the number of \$seecoin tokens in the viewer reward pool and is calculated from the formula

$$reward_{V}^{base}(t) = \begin{cases} min\left(reward_{V}^{threshold}(t), \frac{rewards\_pool_{viewers}(t)}{purchased\_ads(t) - displayed\_ads(t)}\right) & if \ purchased\_ads(t) > displayed\_ads(t) \\ reward_{V}^{threshold}(t) \cdot min(coverage(t), 1) & if \ purchased\_ads(t) = displayed\_ads(t) \end{cases}$$

$$(16)$$

Formula 16. Base Reward for viewers.

where

- $reward_V^{base}(t)$  is the number of \$seecoin tokens as the base reward for viewer V at given time t,
- $reward_V^{threshold}(t)$  is the number of \$seecoin tokens as a maximum single reward for viewer V at given time t,
- $rewards\_pool_{viewers}$  is the number of \$seecoin tokens in the rewards pool for viewers at given time t,
- *purchased\_ads* is the number of purchased ads by advertisers at time *t*,
- *displayed\_ads* is the number of ads displayed to users at time *t*,
- coverage(t) is the value of the reward coverage metric for viewers and streamers at time t.

The graph below shows x according to the change in token price. It shows the operation of the reward limitation mechanism when the price increases between the purchase of ads and the payment of the reward to viewers.



Figure 29 Rewards for Viewers.

The base award can be increased by the Boost to Watch2earn mechanism (More).

#### 2.2.8. Boost to Watch2earn

To maintain continuous user engagement on the platform and prevent bot attacks, an activity verification mechanism has been introduced. This mechanism requires viewers to perform simple actions during the stream (e.g., clicking the mouse, playing a mini-game) to receive a bonus to their reward accumulation (similar to the Boost mechanism in notcoin). Upon completing the activity, users enhance their reward accumulation, resulting in an increased reward for the next payout.

Currently, this mechanism can grant a larger reward, but it can also be used to technologically secure the system and ban excessively inactive users. Additionally, the reward size can be adjusted by the DAO.

## 2.2.8.1. Mechanisms parameters

Table 13 The table below defines the parameters of the Boost Watch2earn mechanism.

Parameter	Description	Value
boost_increment	Parameter that determines how many times the reward will be given to the user to whom the boost to the reward is given.	2

Based on the above parameter, the mathematical specification of the mechanism is defined.

### 2.2.8.2. Mechanisms mathematical specification

The Boost to Watch2earn mechanism for performing an activity during a stream or advertisement awards an additional boost for the user's reward. The reward for viewer *V* is calculated according to the formula

$$reward_{V}(t) = \begin{cases} reward_{V}^{base}(t) \cdot boost\_increment & if boost is granted \\ reward_{V}^{base}(t) & if boost is not granted \end{cases}$$
(17)

Formula 17. Reward for viewers.

where

•  $reward_V(t)$  is the number of \$seecoin tokens as the reward for viewer V at given time t,

- $reward_V^{base}(t)$  is the number of \$seecoin tokens as the base reward for viewer V at given time t,
- *boost\_increment* is a parameter that determines how many times the reward will be given to the user to whom the boost to the reward is given.

The chart below shows sample earnings for viewers depending on whether they earned a boost to the award and whether they are stakers gold or Bronze.

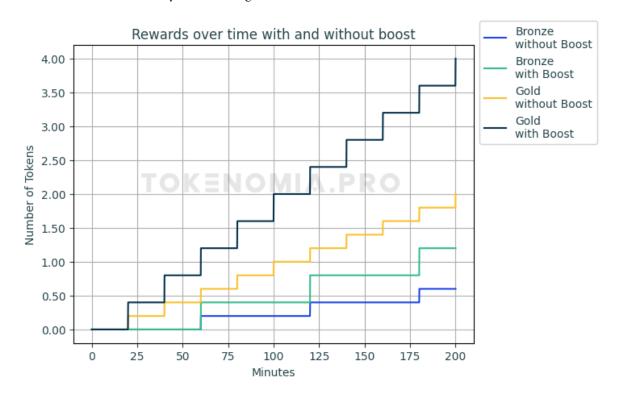


Figure 30 Boost Rewards compare.

#### 2.2.9. Stream2earn

To encourage as many streamers as possible to restream their broadcasts on the SeeGame platform, the Stream2Earn mechanism has been implemented, allowing streamers to earn \$seecoin tokens. This is one of the three main pillars of the entire system. The primary motivation for this mechanism is to attract a large number of streamers, which directly translates into a higher number of viewers who will be the direct target for advertisers, thus developing the project.

The reward system for streamers is based on the amount of \$seecoin earned by their viewers on the streamer's broadcasts. This means that streamers with more viewers can expect greater rewards from the Stream2Earn mechanism, encouraging others to build larger communities.

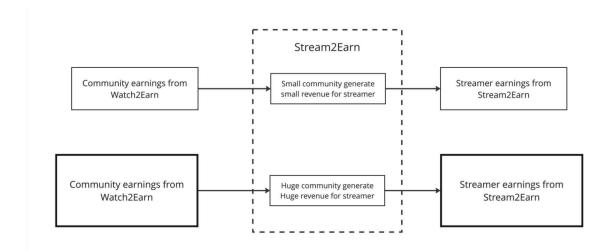


Figure 31 Stream2Earn

Additionally, this reward mechanism for streamers motivates them to encourage their communities to stake a large number of tokens. This is because viewers at higher staking levels can expect more frequent reward accruals, which directly translates into higher rewards for the streamer.

### 2.2.9.1. Mechanisms mathematical specification

Rewards for streams for streams watched by viewers depend on the number of \$seecoin tokens that viewers received while watching the streamer. Let S denote the streamer, and Viewers(t) denote

the viewers who earned a reward by watching streamer S at a given time t. Then the number of tokens as a reward for the streamer is determined from the formula

$$reward_{S}(t) = \frac{rewards\_portion_{streamers}}{rewards\_portion_{viewers}} \cdot \sum_{V \in Viewers(t)} reward_{V}(t)$$
(18)

Formula 18. Streamers Rewards.

where

- ullet reward  $_{S}(t)$  is the number of \$seecoin tokens as the reward for streamer S at given time t,
- rewards\_portion rewards\_portion are parameters specifying the proportion in which tokens are divided into Viewers Rewards and Streamers Rewards pools,
- *Viewers*(*t*) is a list of viewers who have received the reward by watching streamer S at a given time t,
- $reward_V(t)$  is the number of \$seecoin tokens as the reward for viewer V at given time t.

The charts below show an example of a streamer's reward during a stream, assuming average  $reward_V(t) = 0.2$  and that 5% of the Viewers are Gold stakers, 10% Silver stakers and 85% Bronze stakers.

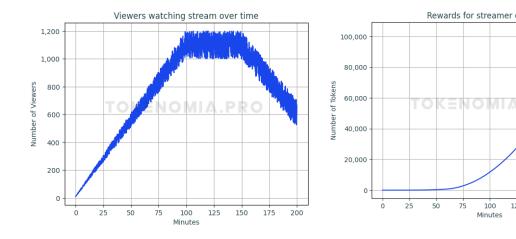


Figure 32 Number of Viewers over time.

Figure 33 Tokens as rewards for streamers over time.

175

#### 2.2.10. Inflation

The inflation mechanism is an additional feature that activates only when inflow from advertisers is insufficient to cover all \$seecoin rewards for viewers on the platform. Its purpose is to ensure the continuity of rewards for viewers and streamers by minting additional \$seecoin tokens.

This mechanism is designed to maintain regular rewards, allowing the platform to function even during periods when funds from advertisers are insufficient. Minting new Tokens involves increasing the total supply, which is the same as diluting the tokens. It includes safeguards to prevent uncontrolled dilution of \$seecoin due to inflation. The mechanism sets a maximum inflation level of 10% relative to the Initial Total Supply. This is achieved by gradually minting smaller amounts of rewards per user according to a predefined formula. This means that if long-term issues with advertiser payments occur, the reward sizes in the Watch2Earn and Stream2Earn mechanisms will proportionally decrease to avoid exceeding the set inflation level. This ensures that rewards will always be paid out, although in extreme cases, the amounts of tokens may be very low.

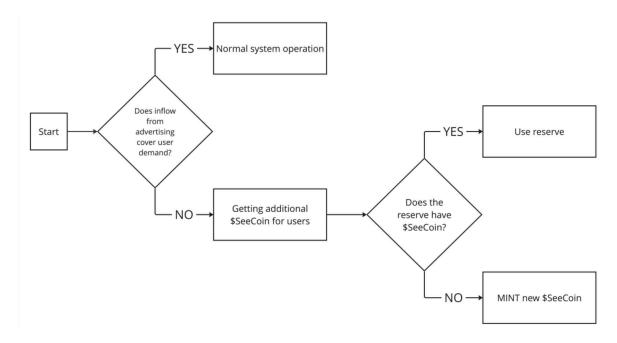


Figure 34 Inflation process

The inflation level in the system can be adjusted in the future by the DAO.

# 2.2.10.1. Mechanisms parameters

Table 14 The table below defines the parameters of the Inflation mechanism.

Parameter	Description	Value
inflation_rate max	A parameter that determines how much the Total Supply of \$seecoin token compares to initial Total Supply. (Value 0.1 means that max Supply is 1.1 times initial Total Supply)	I I

Based on the above parameter, the mathematical specification of the mechanism is defined.

### 2.2.10.2. Mechanisms mathematical specification

Inflation in the system is designed to ensure the solvency of rewards for viewers and streamers when the system temporarily runs out of advertisers. The reserve pool  $(rewards\_pool_{reserve})$  is used first and then additional tokens are minted. The base number of tokens to be minted at time t is calculated from the formula

$$rewards_{mint}^{base}(t) = \sum_{S \in Streamers(t)} reward_S(t) + \sum_{V \in Viewers(t)} reward_V(t)$$
 (19)

Formula 19. Base mint rewards.

where

- $rewards_{mint}^{base}(t)$  is the base number of \$seecoin tokens for viewer and streamer rewards at time t.
- *Streamers*(*t*), *Viewers*(*t*) are the lists of streamers and viewers who are entitled to rewards at time *t*, respectively
- $reward_S(t)$  are the number of \$seecoin tokens as the reward for streamer S and viewer V at given time t.

To ensure the safety of the system, the number of minted tokens is reduced as Total Supply increases. Assuming that t\_0 is the time at which the TGE occurs, the following formula applies

$$rewards_{mint}(t) = rewards_{mint}^{base}(t) \cdot max \left( \frac{(1 + inflation\_rate_{max}) \cdot total\_supply(t_0) - total\_supply(t)}{(1 + inflation\_rate_{max}) \cdot rewards_{mint}^{base}(t) + total\_supply(t_0)}, 0 \right)$$
 (20)

Formula 20. Rewards minting.

where

- $rewards_{mint}(t)$  is the number of tokens minted as rewards for viewers and streamers,
- $rewards_{mint}^{base}(t)$  is the base number of \$seecoin tokens for viewer and streamer rewards at time t,
- inflation\_rate<sub>max</sub> is a parameter specifying the maximum level of inflation allowed in the system,
- $total\_supply(t)$  is the number of all \$seecoin tokens at time t.

This mechanism protects against the possibility of minting more tokens than assumed by the parameter of maximum inflation in the system.

The chart below shows the effect of limiting the size of rewards depending on the amount of inflation in the system. The longer there is a shortage of income from advertisers, the fewer tokens are minted, but they are distributed to users all the time. For the parameter  $inflation\_rate_{max} = 0.1$  Total Supply is less than 110% initial Total Supply.

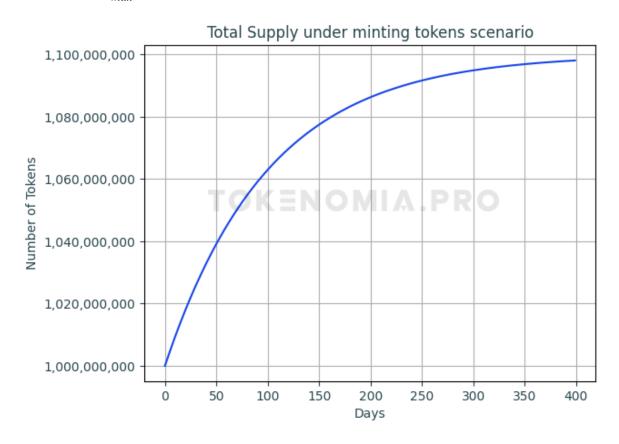


Figure 35 Total Supple under minting tokens scenario

#### 2.2.11. Reserve Burn

A token burning mechanism that is unrelated to the existing Buyback&Burn (More) mechanism and has a different use. The mechanism is activated when coverage (More) drops below 1, aiming to compensate for the previous dilution of the \$seecoin token supply. In such cases, a portion of the advertiser revenue allocated to the reserve pool is automatically burned to offset the previously minted tokens and reduce inflation in the system. This mechanism functions until the coverage reaches or exceeds 1, indicating the complete elimination of the previously created inflation. At that point, the system automatically begins rebuilding the \$seecoin reserve pool for payments in the Watch2Earn and Stream2Earn mechanisms. This mechanism plays a crucial role as it reduces the system's "debt" incurred during periods of financial instability.

## 2.2.11.1. Mechanisms mathematical specification

The mechanism for burning \$seecoin tokens from Rewards Pool Reserve depends on the value of the coverage metric in the system at time t. The number of reserve tokens burned is calculated from the formula

$$burn\_reserve(t) = \begin{cases} rewards\_pool_{reserve}(t) & if \ coverage(t) < 1\\ 0 & otherwise \end{cases}$$
 (21)

Formula 21. Burn Reserve.

where

- $burn\_reserve(t)$  is the number of tokens from the reserve pool to be burned at time t,
- $rewards\_pool_{reserve}(t)$  is the number of \$seecoin tokens in the rewards pool reserve pool at time t,
- coverage(t) is level of reward coverage for viewers and streamers at the time of the t.

Below is an example of how the Inflation (More) and System Coverage (More) mechanisms work, along with the Coverage metric.



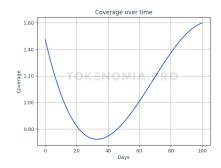


Figure 36 Rewards Reserve and Minted Inflation.

Figure 37 Coverage over time.

# 3. Visual System Mapping

# 3.1. Stock and flow model

Stock&Flow diagram is a graphical tool used to model and analyze dynamic systems. It consists of various elements such as Source, Drain, Stock, Flow and Relationship.

- 1. Source: The source is the point where the system receives new units, resources or information. For example, it can be the point where the system receives supplies, new data flows in, or new units are generated. In the diagram, Source is represented as an arrow entering the warehouse.
- 2. Drain: A drain is a point where the system spends, consumes or gives away units, resources or information. For example, it can be the point where the system dispenses products, consumes resources, or passes information on. In the diagram, Drain is represented as an arrow exiting the assets.
- 3. Assets (Stock): A stock represents quantitative variables, such as the amount, number or value of something that accumulates in a system. Assets store resources or information in a specific location. It can be, for example, a collection of data, material resources, energy, population numbers. In a diagram, assets are represented as a rectangle or oval.
- 4. Flow (Flow): Flow represents the movement of units, resources or information between assets. It can be physical flow, financial flow, information flow or any other type of movement. Flows have a specific direction and can be positive (adding units to the assets) or negative (removing units from the assets). In the diagram, a flow is represented as an arrow connecting assets.
- 5. Relation (Relationship): A relationship reflects dependencies and interactions between elements of the Stock&Flow diagram. It can be, for example, a mathematical equation, a physical law, or another way of describing how variables are related. Relationships can affect flows between warehouses, control the rate of change in assets, or affect starting stocks.

The Stock&Flow diagram allows you to visualize the interactions between these elements, which helps you understand the dynamics of the system and predict its behavior in response to different scenarios. This allows for cause-and-effect analysis, identification of delays, excesses, shortages and evaluation of the impact of changes in the system.

# Stock&Flow of the entire system

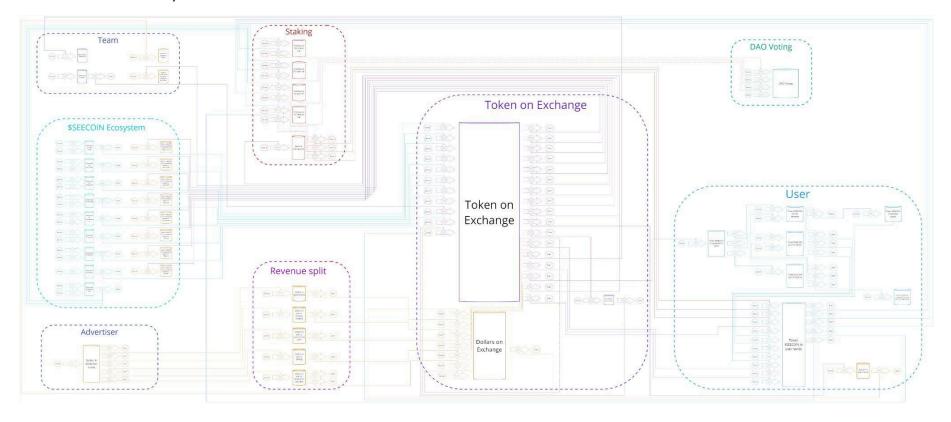


Figure 38 Stock&Flow diagram

Link to miro with Stock&Flow Model

# 4. Agents in System

In the realm of Web3, where the success of projects heavily relies on community engagement, it is paramount to develop a system that caters to users' needs.

Mapping out these participants and comprehending their roles, connections, and potential impact is crucial for understanding their requirements and behaviors, both positive and negative. By integrating insights from motivational psychology and grasping the characteristics of these participants, we can design incentive structures that promote actions beneficial to our project, leveraging their unique qualities and contributions.

Additionally, mapping out agents within the system enhances our awareness and fosters a deeper understanding of the system as a whole. Describing these participants not only aids in identifying patterns but also highlights challenges, thereby enhancing operational efficiency. Consequently, we can easily pinpoint areas where our system may underperform and address them by introducing new incentives or mechanisms.

# 4.1. Map of the agents

The graphic below illustrates mapped Agents within the system. It has been designed to aid in understanding and organizing agents within the system, as well as to demonstrate the relationships between them.

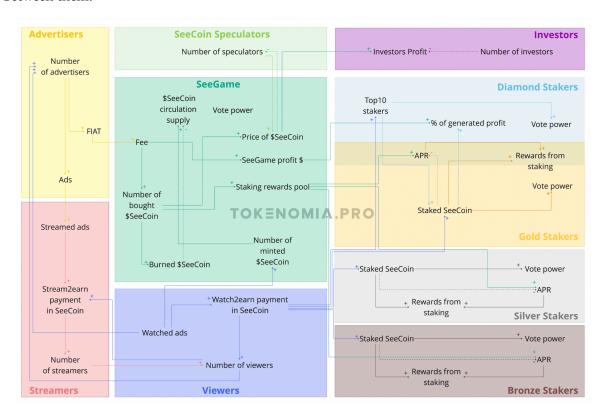


Figure 39 Agent relationships map [Miro]

Color-coded areas represent the spaces of individual agents:

• Green: SeeGame Team

• Yellow: Advertisers

• Red: Streamers

Blue: Viewers

• Purple: Investors

• Bronze: Bronze \$seecoin Stakers

• Gray: Silver \$seecoin Stakers

• Orange: Gold \$seecoin Stakers

Light blue: Diamond \$seecoinStakers

• Light green: \$seecoin Speculators

Within these areas are metrics specific to each agent, which are interdependent and inseparable from them.

Continuous arrows represent relationships where the increase of one metric positively influences another; for example, the more viewers use the platform, the more advertisers want to use it to promote their products and services.

Dashed arrows depict decreasing relationships, where the increase of one metric diminishes another; for instance, when the number of burned \$seecoin tokens increases, their circulation supply decreases.

# 4.2. Summary of agents

The system consists of 10 key agents and 2 secondary agents. The SeeGame team plays a supervisory role, overseeing the promotion of the platform. In the early stages, investors play a crucial role by investing their resources in the platform's development, recognizing its potential. The platform primarily serves as an interface for advertisers, streamers, and viewers. A steady influx of FIAT from advertisers is essential for the proper functioning of the platform and the ability to reward its users. Both streamers and viewers receive \$seecoin tokens based on the ads watched by viewers during streams.

All token holders can become stakers, and depending on the number of tokens staked, they can enjoy various privileges and increasing benefits. Starting from the lowest level, these are bronze, silver, gold, and diamond. In addition to individual bonuses, all stakers receive APR % rewards and the ability to participate in DAO voting (More). Rewards and the overall proper functioning of the platform depend on the price of the \$seecoin token, which is influenced by many supply and demand factors. Price speculators can also impact this, as they attempt to profit from price fluctuations through quick buying and selling of tokens, further destabilizing its price.

The additional agents that can influence the platform from the outside include traditional streaming platforms and similar web3 projects. Conflicts may arise between these agents and SeeGame, as they are competitors. However, these agents can also serve as sources of inspiration through proven solutions and as entities with which collaboration might be possible.

# 4.3. List of all agents

Below is a detailed description of each agent, including their specifications, desired and undesired behaviors from the system's perspective, psychological theories corresponding to the agents' motivations, as well as material and immaterial resources of the agent that may be useful in the system.

Agent name	SeeGame Team
Agent Description	The creators of this platform combine entertainment through stream watching with the potential for earning money. Their knowledge of the advertising industry in the context of streams, extensive experience in the web2 market, and a solid base of existing clients provide significant advantages over the competition. The creators aim to enable advertisers to reach their target audience effectively with their marketing campaigns. By integrating a token seecoin to give the platform a web3 character, the creators also offer streamers and viewers an opportunity to earn. The SeeGame team participates in DAO voting and has a 5% share in the voting pool.
Desired Behaviors	<ul> <li>Prioritizing the platform's and its users' welfare</li> <li>Efficient network monitoring</li> <li>Timely resolution of technical issues</li> <li>Active marketing initiatives to expand the network's reach</li> <li>Monitoring payments for marketing campaigns from advertisers and overseeing the payment process</li> <li>Tracking and improving campaign results</li> <li>Ensuring proper payment to streamers, viewers, and stakeholders</li> <li>Managing loyalty programs, lotteries, and contests</li> </ul>
Undesired Behaviors	<ul> <li>Poor management of network resources</li> <li>Neglecting network monitoring duties</li> <li>Prioritizing creators' profits over the network's welfare, acting in self-interest</li> <li>Failing to attract new advertisers</li> <li>Not encouraging activity from streamers and viewers</li> <li>Rug-pull behaviors and other intentional and unintentional frauds and misconducts</li> </ul>
Motivation for being in the system	• Financial gain and control over network infrastructure align with D. McClelland's theory, emphasizing achievement and power needs.

	Those pursuing <b>financial gain</b> are often motivated by <b>ambition</b> and the desire for <b>financial control</b> through increasing income.  • Gaining popularity and recognition aligns with Carl Rogers' self-esteem theory. Subjects seeking <b>recognition</b> are driven by the desire for positive evaluations and the aspiration to build a <b>positive company image</b> and showcase its achievements.  • According to Vroom's expectancy theory, <b>belief</b> in the success of one's <b>own ideas</b> motivates SeeGame, because it raises the entity's expectations of achieving desired outcomes, the conviction of the <b>instrumentality</b> of actions taken toward this success, and the <b>value</b> of this success to the entity.
Tangible assets	<ul> <li>\$seecoin Token</li> <li>Platform</li> <li>Network infrastructure</li> <li>Funds collected from investors</li> </ul>
Intangible assets	<ul> <li>Knowledge about streams, especially on Twitch and YouTube:         Understanding the specifics of traditional streaming on popular platforms.</li> <li>Ideas related to platform development: Innovative concepts for enhancing and expanding the platform.</li> <li>Collaboration with advertisers: Partnerships and relationships with advertisers to drive marketing campaigns.</li> <li>Network of connections with streamers: Established relationships with streamers who can attract viewers and drive platform engagement.</li> </ul>

Agent name	Advertisers
Agent Description	These are primarily web2 companies using the platform to reach their target customers through streams with their advertisements. An additional utility and advantage over traditional solutions is the ability to reach individuals who are additionally compensated for watching ads, which increases their motivation to view them. These individuals may also have a more positive sentiment towards the advertised company or product. Advertisers pay in FIAT or another default flat currency, and SeeGame purchases \$seecoin tokens from the secondary market on their behalf and uses them to reward Viewers and Streamers.
Desired Behaviors	<ul><li>Extensive advertising</li><li>Large budget allocation</li></ul>

	Frequent advertising
Undesired Behaviors	<ul> <li>Terminating partnership</li> <li>Payment issues</li> <li>Low-quality advertisements</li> </ul>
Motivation for being in the system	<ul> <li>Advertisers are driven by a clear goal of reaching targeted consumers more effectively. Leveraging a platform that offers incentives for viewers to watch ads allows for deeper engagement. This approach aligns with Herzberg's Motivation-Hygiene Theory, which emphasizes creating conditions that enhance satisfaction to increase productivity—in this case, advertisement viewership. By providing incentives, advertisers can boost engagement and satisfaction, leading to higher ad consumption.</li> <li>Building a brand's image on positive associations taps into concepts similar to Carl Rogers' theory of self-concept, where companies strive to shape how they are perceived by the public. Just as individuals develop a self-concept that influences their actions and interactions, brands aim to create a desired image that resonates with consumers, enhancing their overall market standing. By fostering positive associations, companies can influence consumers' perceptions and build a loyal customer base.</li> <li>The use of SeeGame's web3 features introduces an innovative aspect that appeals to advertisers' intrinsic motivation to innovate and stay ahead in a competitive market. This aligns with the principles of transformational leadership in business psychology, where fostering innovation and challenging the status quo are key to achieving higher performance and engagement. By integrating cutting-edge web3 technology, SeeGame empowers advertisers to drive deeper engagement and market success.</li> </ul>
Tangible assets	<ul><li>FIAT</li><li>Ads</li></ul>
Intangible assets	• Knowledge of the Target Customer Profile: Companies advertising on the platform aim to reach users interested in the topics discussed on streams. Ads can also be personalized based on demographic characteristics.

Agent Description	These are individuals whose streams from other platforms can be restreamed by SeeGame, or they can stream directly on the SeeGame platform. Their content covers various categories and has the potential to attract a large audience. Many of these streamers already have their own audience and engaged fans, which they can attract and encourage to use SeeGame. Through the SeeGame platform, they can earn \$seecoins based on how many \$seecoins their viewers receive by watching their streams. They can sell the received tokens on exchanges or stake them to enjoy staking benefits.
Desired Behaviors	<ul> <li>Attracting many viewers</li> <li>Creating engaging content</li> <li>Building an engaged community</li> <li>Staking earned \$seecoins</li> <li>High activity on the platform</li> <li>Frequent streams</li> <li>High-quality streams and content</li> <li>Promoting the platform among their audience</li> </ul>
Undesired Behaviors	<ul> <li>Ceasing to stream</li> <li>Irregular streaming schedule</li> <li>Neglecting community interaction</li> <li>Not following streaming rules and guidelines</li> <li>Quickly selling large amounts of \$seecoins</li> </ul>
Motivation for being in the system	<ul> <li>According to Maslow's hierarchy of needs, streamers are initially driven by the basic need for financial stability through earnings from their streams. As they achieve this stability, they may then seek to fulfill higher-level needs such as social connections with their audience (fell of belongingness), recognition and respect in their community (esteem), and eventually the realization of their full potential through creative and impactful content (self-actualization).</li> <li>Streamers are often intrinsically motivated to turn their passion into a sustainable career. This aligns with Edward Deci's concept of intrinsic motivation, where individuals are driven to perform activities that are inherently enjoyable and rewarding.</li> <li>Alfred Adler's theory of social interest and community feeling plays a role, as streamers seek to create and maintain a sense of belonging within their viewer base. This is manifested in their efforts to engage with and cultivate their community. As they ascend the hierarchy, the need for esteem becomes prominent, where gaining recognition and popularity through streaming fulfills their desire for self-esteem and respect from others.</li> </ul>

Tangible assets	Earned \$seecoin
Intangible assets	<ul> <li>Fanbase Group: These are individuals who have previously watched a particular streamer and are dedicated fans. They can be encouraged to switch streaming platforms by the streamer for additional benefits.</li> <li>Knowledge of Streaming Rules: Streamers have experience from traditional platforms and an understanding of the platform's guidelines and regulations.</li> <li>Skills in Attracting and Retaining Audience Attention: Streamers, thanks to their gained experience, are adept at engaging and maintaining viewer interest.</li> </ul>

Agent name	Viewers
Agent Description	These are fans who watch streams through the platform. SeeGame offers them additional value by allowing them to earn \$seecoin tokens for watching ads during streams. They have the opportunity to become engaged and loyal users by participating in staking programs, contests, and tournaments. Upon creating an account and linking their wallet, viewers receive one token, which is automatically staked.
Desired Behaviors	<ul> <li>Watching a large number of streams</li> <li>Viewing many advertisements</li> <li>Being active on the platform</li> <li>Participating in tournaments and contests</li> <li>Staking earned tokens</li> </ul>
Undesired Behaviors	<ul> <li>Quickly selling earned \$seecoins in large quantities</li> <li>Ceasing to use the platform</li> <li>Using bots or different types of scams</li> </ul>
Motivation for being in the system	<ul> <li>David McClelland's Theory of Needs provides a foundation for understanding streamers' motivations, emphasizing the need for achievement as they engage in various platform activities like contests and tournaments to gain rewards and recognition. This aligns as well with their pursuit of financial benefits, reinforcing the achievement aspect as they earn \$seecoins for their participation.</li> <li>The Cognitive Evaluation Theory (CET) explains how intrinsic motivation for entertainment is supported by the platform's structure, which enhances engagement through rewards. This theory posits that external rewards can enhance intrinsic motivation if they are perceived as supportive of autonomy rather</li> </ul>

	than <b>controlling</b> . Viewers decide independently how much they wish to engage, which activities to participate in (streams, loyalty program, DAO), and how they wish to engage in them.  • The viewers' continued engagement is fueled by their need for <b>relatedness</b> , as postulated by Self-Determination Theory. This need is met as they <b>interact</b> with other users and participate in <b>community-centric activities</b> like tournaments, which foster a <b>sense of belonging</b> and <b>connection</b> within the platform.
Tangible assets	<ul> <li>seecoin earned from watching streams</li> <li>seecoin, which can be staked in future</li> </ul>
Intangible assets	<ul> <li>Time that can be spent using the platform: Users who have previously used traditional streaming platforms can now spend that same time watching restreams and simultaneously earning \$seecoin.</li> <li>Interest in streaming topics: Interest in content related to their interests increases engagement and long-term relationships with streamers. It is important to have diverse content on the platform to attract a wide range of viewers.</li> <li>Knowledge about streamers and streams: Most viewers will be people who have previously used traditional streaming platforms and understand this type of entertainment. It is crucial to provide an easy and intuitive interface similar to traditional platforms to avoid deterring viewers transitioning to SeeGame.</li> <li>Connections with potential new users who can use the platform: Viewers may have a network of acquaintances within the current fanbase of a streamer or simply friends with similar interests who can also use SeeGame and enjoy its new benefits.</li> </ul>

Agent name	Investors
Agent Description	Investors are individuals who believe in the project and seek to profit from it. They joined the project at its early stage before the official launch. Investors play a crucial role as the funds raised will be used to launch \$seecoin, expand, and enhance the SeeGame platform. Being part of an exclusive group, they have the opportunity to potentially earn more by purchasing \$seecoin tokens at a lower price. As the platform expands and develops, the token value is expected to increase.
Desired Behaviors	<ul> <li>Participating in fundraising phase</li> <li>Investing a large amount of FIAT in the project</li> <li>Engaging in project promotion - marketing</li> </ul>

	Not selling \$seecoin Tokens shortly after project start
Undesired Behaviors	<ul> <li>Actions detrimental to the project</li> <li>Selling \$seecoin Tokens shortly after project start</li> <li>Disincentivizing platform usage</li> </ul>
Motivation for being in the system	<ul> <li>According to Maslow's hierarchy of needs, self-actualization is one of the highest levels of needs, encompassing the <b>fulfillment</b> of one's potential and life goals. Investors who invest in projects <b>believing</b> in their success and expecting <b>profit</b> can strive to achieve their full financial potential and fulfill their own ambitions.</li> </ul>
Tangible assets	Big capital in FIAT
Intangible assets	<ul> <li>Knowledge about Investing: Individuals or companies investing significant sums in projects have experience and know what to expect from creators, both in terms of web3 specifics and traditional benefits.</li> <li>Knowledge about Other Projects, Including Competitors: These investors are entities with substantial capital who regularly invest in projects, giving them a good understanding of the market and competing projects.</li> <li>Network of Influential Contacts: These investors operate within a network of similar individuals and have relationships that could potentially lead to additional interested parties investing in SeeGame.</li> </ul>

Agent name	Bronze \$seecoin Stakers
Agent Description	This is the lowest level in the loyalty program for stakers. These users have relatively small capital and wish to earn through staking, as well as influence the project's development through decentralized voting. To enjoy its privileges, users must stake between 1 and 1000 \$seecoin tokens. The privileges include up to 6% APR return and the ability to vote in the DAO. The group of Bronze Stakers has a 40% share in the voting pool. Being in the Bronze tier allows viewers to mint tokens faster while watching streams—earning part of the \$seecoin after 60 minutes, unlike non-stakers.
Desired Behaviors	<ul> <li>Staking for a long period</li> <li>Increasing the amount of staked tokens over time</li> <li>Actively participating in the DAO</li> </ul>
Undesired Behaviors	<ul><li>Ceasing to stake</li><li>Selling tokens</li></ul>

	Not participating in the DAO
Motivation for being in the system	<ul> <li>According to B.F. Skinner's Reinforcement Theory, tangible rewards serve as strong positive reinforcements, encouraging users to stake their tokens and maintain their investment for longer periods. Additionally, the opportunity to earn \$seecoins faster by watching streams further enhances their motivation, as immediate and consistent rewards can sustain engagement and commitment.</li> <li>Maslow's hierarchy of needs also sheds light on their need for esteem and self-actualization becomes more significant. Participating in the DAO allows them to fulfill their higher-order need for self-esteem, as they perceive their votes and opinions as valuable contributions to the project's development.</li> </ul>
Tangible assets	seecoin in stake
Intangible assets	<ul> <li>Time to Stake and Stable Financial Situation, Avoiding the Need to Cash Out: These are users who can wait to gain additional profits and do not feel the need to immediately withdraw their tokens.</li> <li>Time to Vote: These individuals have the time to participate in voting, review proposals, make their own proposals, and educate themselves about the platform and its needs to make more informed decisions in voting.</li> <li>Connections with Other Platform Users Who Can Also Become Stakers: These are mostly people who were previously viewers or streamers and have connections within these groups, which can help encourage more users to take advantage of staking benefits.</li> </ul>

Agent name	Silver \$seecoin Stakers
Agent Description	This is the second level in the loyalty program for stakers. These users have medium capital and wish to earn through staking, as well as influence the project's development through DAO participation. To enjoy its privileges, users must stake between 1,000 and 10,000 \$seecoin tokens. The privileges include up to 12% APR return and the ability to vote in the DAO. The group of Silver Stakers has a 30% share in the voting pool. Being in the Silver tier allows viewers to mint tokens faster while watching streams—earning part of the \$seecoin after 30 minutes, unlike non-stakers and Bronze

	members. An additional bonus for Silver members is the ability to participate in lotteries with guaranteed prizes.
Desired Behaviors	<ul> <li>Staking for a long period</li> <li>Increasing the amount of staked tokens over time</li> <li>Actively participating in the DAO</li> <li>Participating in lotteries and contests</li> </ul>
Undesired Behaviors	<ul> <li>Ceasing to stake</li> <li>Selling tokens</li> <li>Not participating in the DAO</li> </ul>
Motivation for being in the system	<ul> <li>Drawing on Frederick Herzberg's Two-Factor Theory, the financial rewards and faster token minting, serve as hygiene factors that prevent dissatisfaction and maintain stakers' engagement. The opportunity to earn \$seecoins faster and participate in lotteries with guaranteed prizes acts as motivators that actively enhance satisfaction and engagement.</li> <li>According to the Self-Determination Theory by Deci and Ryan, Silver stakers experience intrinsic motivation through their ability to influence project development via DAO participation. This aligns with their need for autonomy, as they have more voting power compared to Bronze members, fulfilling their desire for greater control and impact.</li> <li>Victor Vroom's Expectancy Theory further elucidates their motivation, as Silver stakers expect that their increased effort (staking and participation) will lead to desirable outcomes, such as higher financial returns and significant influence in the DAO. This belief in the instrumentality of their actions reinforces their commitment to the platform.</li> </ul>
Tangible assets	Some \$seecoin in stake
Intangible assets	<ul> <li>Time to Stake and Stable Financial Situation, Avoiding the Need to Cash Out: These are users who can wait to gain additional profits and do not feel the need to immediately withdraw their tokens.</li> <li>Time to Vote: These individuals have the time to participate in voting, review proposals, make their own proposals, and educate themselves about the platform and its needs to make more informed decisions in voting.</li> <li>Connections with Other Platform Users Who Can Also Become Stakers: These are mostly people who were previously</li> </ul>

viewers or streamers and have connections within these groups, which can help encourage more users to take advantage of staking benefits.

Agent name	Gold \$seecoin Stakers
Agent Description	This is the third level in the loyalty program for stakers. These users have a large capital and wish to earn through staking, as well as influence the project's development through decentralized voting. This group is highly engaged in the platform's development, having spent a lot of time enriching themselves on the platform or having a large capital to buy \$seecoin from the secondary market. To enjoy its privileges, users must stake more than 10,000 \$seecoin tokens. The privileges include up to 24% APR return and the ability to vote in the DAO. The group of Gold Stakers has a 15% share in the voting pool. Being in the Gold tier allows viewers to mint tokens faster while watching streams—earning part of the \$seecoin after 15 minutes, unlike non-stakers and those in lower loyalty tiers. An additional bonus for Gold members, besides participating in lotteries with guaranteed prizes, is participating in airdrops from SeeGame and partner projects.
Desired Behaviors	<ul> <li>Staking for a long period</li> <li>Increasing the amount of staked tokens over time</li> <li>Actively participating in the DAO</li> <li>Participating in lotteries and contests</li> <li>Participating in airdrops</li> </ul>
Undesired Behaviors	<ul> <li>Ceasing to stake</li> <li>Selling tokens</li> <li>Not participating in the DAO</li> </ul>
Motivation for being in the system	<ul> <li>Drawing on Herzberg's Two-Factor Theory, the substantial financial returns and exclusive privileges serve as hygiene factors that prevent dissatisfaction. The ability to participate in the DAO with more voting power than other tiers addresses the motivational factor of achievement and responsibility, as these stakers can significantly influence the project's direction.</li> <li>The Expectancy Theory by Victor Vroom explains that Gold stakers are motivated by the belief that their substantial investment and active participation will lead to desirable outcomes. They expect that their efforts will yield high financial returns and grant them substantial influence over the platform's development, reinforcing their commitment to long-term staking and active involvement.</li> </ul>

	• The Social Identity Theory by Henri Tajfel and John Turner suggests that being part of the Gold tier provides these stakers with a strong sense of <b>belonging</b> and <b>identity</b> . This <b>prestigious</b> status enhances their social standing within the platform's <b>community</b> , offering intangible rewards such as <b>recognition</b> and <b>respect</b> from peers.
Tangible assets	Big capital in \$seecoin in stake
Intangible assets	<ul> <li>Time to Stake and Stable Financial Situation, Avoiding the Need to Cash Out: These are users who can wait to gain additional profits and do not feel the need to immediately withdraw their tokens.</li> <li>Time to Vote: These individuals have the time to participate in voting, review proposals, make their own proposals, and educate themselves about the platform and its needs to make more informed decisions in voting.</li> <li>Connections with Other Platform Users Who Can Also Become Stakers: These are mostly people who were previously viewers or streamers and have connections within these groups, which can help encourage more users to take advantage of staking benefits.</li> </ul>

Agent name	Diamond \$seecoin Stakers
Agent Description	Diamond is the highest level in the loyalty program. This group is the most engaged in the project, comprising the top 10 individuals staking the most \$seecoin tokens. To be in this group, members must first be in the Gold tier, holding more than 10,000 \$seecoin. The Diamond tier offers all the privileges of previous groups, including contests and airdrops. Additionally, it provides a maximum of 24% APR and a share of the project's annual profits. Diamond members can vote in the DAO with the same voting power as the Gold group, plus an additional 10% voting power exclusive to Diamonds.
Desired Behaviors	<ul> <li>Staking for a long period</li> <li>Increasing the amount of staked tokens over time</li> <li>Actively participating in the DAO</li> <li>Participating in lotteries and contests</li> <li>Participating in airdrops</li> </ul>

Undesired Behaviors	<ul> <li>Ceasing to stake</li> <li>Selling tokens</li> <li>Not participating in the DAO</li> </ul>			
Motivation for being in the system	<ul> <li>Herzberg's Two-Factor Theory highlights that the substantial financial rewards and exclusive privileges serve as hygiene factors that prevent dissatisfaction, while the ability to participate in the DAO with enhanced voting power and access to exclusive airdrops and contests act as strong motivational factors, driving engagement through achievement and recognition.</li> <li>Victor Vroom's Expectancy Theory explains that Diamond stakers are motivated by the belief that their substantial investment and active participation will lead to highest rewards and significant influence. This theory underscores their expectation that continued effort and increased staking will result in desirable outcomes, such as higher financial returns and greater decision-making power.</li> <li>The Social Identity Theory by Henri Tajfel and John Turner suggests that being part of the exclusive Diamond tier enhances their social identity and status within the community, providing them with a sense of belonging and recognition that further reinforces their commitment and engagement.</li> </ul>			
Tangible assets	Large capital in \$seecoin in stake			
Intangible assets	<ul> <li>Time to Stake and Stable Financial Situation, Avoiding the Need to Cash Out: These are users who can wait to gain additional profits and do not feel the need to immediately withdraw their tokens.</li> <li>Time to Vote: These individuals have the time to participate in voting, review proposals, make their own proposals, and educate themselves about the platform and its needs to make more informed decisions in voting.</li> <li>Connections with Other Platform Users Who Can Also Become Stakers: These are mostly people who were previously viewers or streamers and have connections within these groups, which can help encourage more users to take advantage of staking benefits.</li> </ul>			

Agent name	Seecoin Speculators	
Agent Description	Speculators are individuals who purchase tokens with the intention of selling them later at a higher price, solely to make a profit. They are not actively	

	involved in the system or its underlying ideas. However, their actions significantly influence token prices, causing them to rise when they buy and fall when they sell.		
Desired Behaviors	<ul><li>Buying tokens</li><li>Holding tokens</li></ul>		
Undesired Behaviors	<ul> <li>Selling tokens</li> <li>Causing fluctuations in token prices, especially during critical moments</li> <li>Leading to volatility in the token market</li> </ul>		
Motivation for being in the system	• Expectancy Theory: The speculator believes that by purchasing tokens at a certain price and selling them at a higher price in a short period, they can realize a <b>profit</b> . They assess the potential gains against the risks involved, such as price volatility and market uncertainties. Despite the <b>risks</b> , they are motivated by the expectation of achieving <b>substantial profits</b> , which drives their decision to engage in speculative trading.		
Tangible assets	<ul><li>Significant capital</li><li>Funds (FIAT) for purchasing \$seecoin Tokens</li></ul>		
Intangible assets	• Knowledge about Web3 and Cryptocurrency Markets: These are individuals often not directly connected to the platform and unfamiliar with its functionality and utility. They focus solely on the token's price and its fluctuations, demonstrating a good understanding of trading principles in the Web3 space.		

There are two important agents that are not in the system but can strongly influence the SeeGame platform and its development. These are traditional streaming platforms and competing projects in Web3. Understanding their profiles and drawing conclusions regarding the threats they may pose, as well as the inspirations they can offer to SeeGame, can be crucial in refining the platform and the economic mechanisms of the project.

Agent name	Traditional Streaming Platforms
Agent Description	These are platforms typically associated with streaming entertainment, mainly YouTube and Twitch. These platforms operate in the Web2 space, meaning they do not offer the additional benefits provided by Web3

	functionalities. They enjoy a large audience, years of experience, and a developed budget over this period.		
Potential Threats	<ul> <li>These platforms may not agree to restream content from their sources, thereby blocking or complicating the use of SeeGame for streamers, which would also reduce the potential number of viewers.</li> <li>Traditional platforms already have a loyal user base, who, based on years of usage, may be reluctant to switch to another platform.</li> <li>Due to their established position in the market, traditional platforms can attract both advertisers and streamers with more attractive terms of cooperation.</li> </ul>		
Important Insights	<ul> <li>SeeGame should consider that users may be very familiar with the UX of traditional platforms. Following the already learned navigation intuition can be crucial in the process of using the platform for both viewers and streamers.</li> <li>To increase the chances of attracting viewers and streamers, the process of creating an account, setting up a wallet, managing tokens, and payment methods should be simple, clear, and facilitate adaptation to Web3 solutions.</li> <li>SeeGame must offer competitive advertising rates for advertisers and provide them with added value, such as personalized campaign reports. Also it should be addressed that, unlike traditional solutions, SeeGame, by rewarding viewers for watching ads, builds positive associations and sentiment towards the advertised companies, products, and services.</li> <li>SeeGame should ensure that the platform allows streamers to earn additional income and does not block their revenue from traditional platforms and collaborations.</li> </ul>		

Agent name	Competitive projects in web3		
Agent Description	These are projects from the Web3 sector that, like SeeGame, combine the functionality of tokenization with the virtual entertainment of watching content. A detailed analysis has been conducted in Chapter Research Insights		
Potential Threats	<ul> <li>These are projects that have been operating in the market for some time, which has allowed them to find and expand their audience, building loyalty.</li> <li>They have also had the opportunity to establish collaborations with well-known creators and YouTubers.</li> </ul>		

#### Important Insights

- SeeGame should offer competitive payment terms based on research into the competition for streamers and provide higher rewards for viewers.
- In building loyalty programs, SeeGame should provide stakers with real and valuable benefits, such as capital growth, physical rewards, and decision-making power in the DAO. This approach will help foster stable and ongoing engagement.
- A key advantage of SeeGame over the competition, which should be communicated clearly, is that it rewards viewers and streamers for activities they are likely to do regardless of the reward. Other projects tend to reward users for watching content they would not otherwise be motivated to watch.

#### 4.4. Agents Collusion

Collusion can be understood in two ways. Firstly, as agreements between individual agents who exploit the system to their advantage, and secondly, as conflicts of interest between specific pairs of agents. To ensure a comprehensive understanding of the threats posed by agents to the system, it is crucial to consider both scenarios.

#### 4.4.1. Summary of Agents Collusion

The key insights regarding the SeeGame platform revolve around several critical issues linked to various types of collusion.

#### Connections between agents that can act against the SeeGame platform:

- There can be a lack of engagement and loyalty from streamers towards the platform. This leads to significant problems in retaining users and attracting advertisers, resulting in a decline in revenue. It is crucial to ensure that streamers are motivated by offering flexible collaboration terms and reward systems tied to viewer engagement. This approach helps maintain their active participation and promotion of the platform within their communities.
- Unfair practices such as artificially inflating viewership figures pose a significant issue for SeeGame. These practices distort the reward system and undermine the effectiveness of advertising campaigns, leading to dissatisfaction among advertisers. To address this, SeeGame introduces mechanisms to verify genuine user engagement. For instance, the platform employs pop-up confirmations that require viewer interaction, ensuring that rewards are only distributed to genuinely engaged users.
- Decisions within the DAO can sometimes be driven by the self-interest of specific groups, leading to negative changes that deter other users from the platform. To prevent this, SeeGame ensures balanced voting power by assigning varying voting strengths and participation rates to different groups of stakers. This approach guarantees fair representation of all interests and maintains the platform's stability and integrity.
- Recurring issue is market manipulation by speculators, which threatens the stability of the platform's token. Speculators, armed with insider information, can cause significant price volatility, undermining the platform's credibility. To mitigate this, SeeGame implements staking mechanisms that reduce selling pressure and stabilize the market. By offering various levels of loyalty rewards based on the amount of capital staked, the platform encourages long-term engagement and minimizes sudden market movements.

- SeeGame also faces competition from traditional streaming platforms and other Web3 projects that establish exclusive, long-term partnerships with streamers. These exclusive agreements prevent SeeGame from integrating these streamers and their audiences into its ecosystem. In response, SeeGame actively pursues its strategic partnerships, enhancing its appeal and creating new opportunities for streamers and viewers, fostering a more inclusive and competitive environment.

#### How agents can play against each other - conflict of interest between agents:

- Internal conflict between the SeeGame team and key agents like advertisers, streamers, viewers, investors, and stakers can arise when the team makes decisions impacting reward distribution or compensation terms. This can be reducing rewards or altering participation conditions. This leads to dissatisfaction and mistrust among agents, potentially driving them away from the platform. To mitigate this, SeeGame must balance rewards and pricing carefully, avoiding negative changes. Transparent communication and decentralized decision-making through DAO voting can help maintain trust and ensure community involvement in critical decisions.
- Challenge is the reliance on advertisers for the platform's financial health, as they are the main source of FIA . If advertisers reduce their investment or alter engagement terms, the platform's functionality and stability suffer. SeeGame addresses this by maintaining strong advertiser relationships, by providing detailed reports on campaign effectiveness and rewarding viewers for ad engagement ensures advertisers see a favorable return on investment.
- Token price stability is another recurring issue, particularly due to the actions of speculators. Large token sales can significantly decrease the token's value, affecting perceptions of the platform's stability. SeeGame mitigates this through an incentive mechanism encouraging token staking, offering rewards like staking bonuses, company profit shares, and participation in DAO governance. This reduces selling pressure and helps maintain a stable token price.
- The relationship between streamers and viewers is crucial. Irregular streaming and a lack of viewers lowers platform standards and token value, discouraging participation. SeeGame addresses this with an incentive program rewarding both streamers and viewers for their engagement, ensuring a stable and active user base.
- Conflicts of interest in DAO decision-making, where stakers might prioritize personal gains over platform welfare, also pose a risk. Balanced voting power in the DAO, with varying voting strengths and participation rates, ensures fair representation. The SeeGame team also supports decision-making to prevent centralization of control.

- Insufficient initial investment can lead to operational issues, necessitating the abandonment of certain system features. To prevent this, SeeGame ensures robust platform performance to attract more investment. A reserve mechanism provides a financial buffer during shortfalls, maintaining platform stability and user confidence.
- Competition from other Web3 projects and traditional streaming platforms also poses a threat. SeeGame attracts agents from these competitors by offering superior incentives and marketing strategies, continuously improving its offerings to maintain a competitive edge. This approach helps draw in more viewers, streamers, and advertisers, strengthening the platform's position.
- Traditional streaming platforms blocking streamers from restreaming poses a critical threat. SeeGame counters this by offering attractive incentives and bonuses to streamers, encouraging negotiations for restreaming permissions or full transitions to SeeGame. Partnerships with traditional platforms can also facilitate content sharing, enhancing overall platform vitality.

A 11	the	details	are	thor	anghly	outlined	helow
7 711	uic	uctans	arc	uion	Jugilly	outilited	DCIOW.

#### 4.4.2. Connections between agents that can act against the SeeGame platform

The matrix illustrates how individual agents can collaborate to benefit themselves while simultaneously undermining the system.

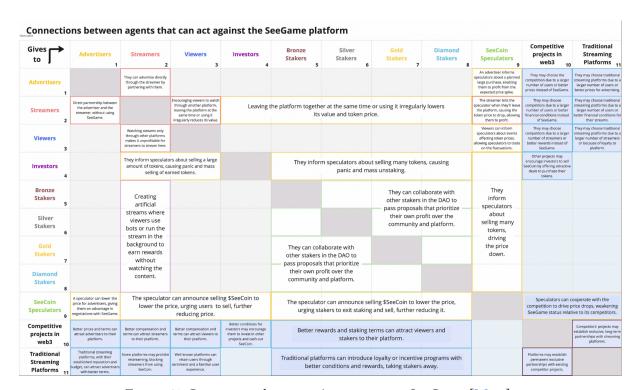


Figure 40 Connection between Agents against SeeGame [Miro]

#### Table 15 Type 1 - Red

Type 1 Collusion:	These types of collusions stem from a lack of streamer engagement and loyalty to the SeeGame platform. Streamers may bypass SeeGame entirely by forming direct partnerships with advertisers, thus cutting out the platform. Additionally, they may fail to encourage, or even actively discourage, their viewers from engaging with SeeGame, leading to a decline in user participation. Streamers might also neglect to promote SeeGame, resulting in reduced visibility and growth. In some cases, streamers could decide to end their partnership with SeeGame altogether, potentially informing speculators and other stakeholders of their departure, which could further destabilize the platform's ecosystem and undermine its credibility and attractiveness to both users and advertisers.
Effect:	Without the active participation of streamers and their audiences, the platform faces a significant challenge in attracting advertisers. Streamers are the primary content creators who draw in viewers, and their absence would lead to a

substantial decline in the platform's user base. Advertisers are interested in reaching a large and engaged audience, and without streamers, the platform loses its appeal as an advertising venue. This decline in advertiser interest results in a lack of advertising revenue, which is crucial for the financial health of the platform. Consequently, the system would suffer from a severe shortage of funds, hindering its ability to operate, innovate, and offer competitive rewards or incentives to retain and attract new streamers and users. This financial shortfall could lead to a downward spiral, making it increasingly difficult for the platform to recover and grow.

#### Solution:

Addressing this potential collusion, which could significantly impact SeeGame, requires a strategic approach to effectively motivate and retain streamers. The primary solution involves ensuring that streamers remain engaged and loyal to the platform. To achieve this, it is essential not to impose restrictions on streamers' opportunities for collaboration or enforce exclusivity clauses that might limit their freedom. Streamers should be allowed the autonomy to stream and restream content on any platform of their choosing and under conditions that they deem suitable. SeeGame should be positioned as an additional revenue stream, enhancing their ability to monetize the content they already create and share through restreaming.

Furthermore, it is crucial to incentivize streamers to actively promote SeeGame within their communities. Streamers should be motivated by a reward structure that links their compensation to the engagement of their viewers. By tying rewards to the prizes that viewers earn, streamers have a vested interest in promoting and endorsing the platform.

An important incentive for advertisers to use Seegame is the provision of specialized reports on campaign effectiveness. These reports, along with mechanisms that ensure advertisements are genuinely viewed, enhance the platform's appeal. Additionally, because viewers are rewarded for watching ads, they develop a more positive sentiment towards the advertised products and services. This combination of detailed performance analytics and improved viewer perception ensures that advertisers see the true value in partnering with Seegame.

#### Table 16 Type 2 - Yellow

Type	2
Collusion:	

These types of collusion primarily focus on the detrimental impact that speculators can have on the system. In this scenario, any agent within the network might tip off a speculator about their upcoming sale of tokens, particularly when dealing with significant quantities. Armed with this insider information,

	speculators can manipulate the market to their advantage, further increasing price volatility and seeking opportunities for personal gain.
Effect:	The behavior of speculators can significantly heighten the volatility of the token's price, leading to extended periods of price instability or a sharp decline. This volatility can severely undermine the project's credibility and reliability, making it appear less attractive to potential investors and advertisers. The perception of instability and unpredictability in token value can deter stakeholders who are critical to the platform's growth and success, thereby damaging the project's reputation and diminishing its perceived potential.
Solution:	Although SeeGame cannot directly control the actions of speculators since they operate as external agents, the project can implement strategies to mitigate the impact of such behaviors. One effective approach is the introduction of a staking mechanism, which helps stabilize the token's price by reducing selling pressure. Key elements of the staking mechanism include offering various levels of loyalty rewards based on the amount of capital staked. Stakers can benefit from several advantages: the potential for capital appreciation, the ability to vote in DAO decisions, additional bonuses such as exclusive tournaments and airdrops, and even a share of the platform's profits.  Furthermore, to prevent sudden and panic-induced market movements, the unstaking process is designed with a delay period, such as a 14-day waiting period before stakers can fully withdraw their tokens. This delay helps ensure market stability by discouraging abrupt sell-offs and providing a buffer against rapid changes in market sentiment.

# Table 17 Type 3 - Blue

Type 3 Collusion:	This type of collusion involves relationships between internal system agents and two external entities: Traditional Streaming Platforms and Competitive Projects in Web3. Each agent within the system, including Advertisers, Streamers, Viewers, Investors, and Stakers, has the autonomy to choose to support other similar projects in Web3 or well-established traditional streaming platforms instead of SeeGame. They might make this decision due to the greater reputation and established status of these alternatives in the market. Factors such as a familiar interface, ease of use, better user conditions—whether lower costs for advertisers, higher rewards for streamers, better terms for investors, or more attractive loyalty programs—can also influence their choice.
Effect:	For SeeGame to function correctly, each of these agents needs to have a sufficiently large representation on the platform. The absence of any one of these agents can disrupt the platform's operations and overall ecosystem balance.

Advertisers are necessary for generating revenue, which in turn funds rewards and incentives for other participants. Streamers attract and retain viewers, creating content that keeps the audience engaged and returning to the platform. Viewers drive the demand for content and interact with advertisements, directly impacting the platform's revenue stream. Investors provide the capital needed for the platform's development and expansion, while Stakers contribute to the system's stability and governance.

#### Solution:

To counteract this type of collusion, SeeGame must offer competitive and superior prices, rewards, and benefits to attract and retain its agents. This involves continuously monitoring and assessing the solutions provided by both competitors and traditional platforms. By staying informed about the latest industry standards and innovations, SeeGame can ensure its offerings remain attractive and relevant.

Moreover, providing a variety of staking options can accommodate different levels of commitment among participants. This allows each user to choose how deeply they wish to engage with the platform, ensuring there are tailored opportunities that appeal to a broad spectrum of agents. This diversity in staking options helps create a more inclusive and flexible environment, encouraging loyalty and active participation from all involved parties.

To ensure the platform remains adaptable and meets the evolving needs of its community, any necessary changes must be implemented through a transparent process. If agents are dissatisfied with the current terms, SeeGame offers them the opportunity to propose modifications via DAO governance. By maintaining a flexible and dynamic system, SeeGame empowers stakers to suggest and vote on changes, fostering a sense of ownership and involvement in the platform's future direction.

#### Table 18 Type 4 - Purple

Type 4 Collusion:	Streamers, in collaboration with viewers, may engage in creating artificial streams that lack substantive content, during which advertisements are played. Viewers, on their part, might employ bots or simply run the stream in the background without actively watching it to earn rewards. This tactic is especially attractive to stakers, who can utilize these artificial streams to rapidly multiply their capital without genuine engagement.
Effect:	In such scenarios, the distribution of rewards occurs without actual user engagement, undermining the platform's reward system. This not only distorts the intended incentive structure but also poses a significant issue for advertisers.

	Advertisers depend on SeeGame to deliver higher viewer engagement and ensure that their campaigns are reaching and resonating with the intended audience. When streams are artificially inflated in this manner, the effectiveness of advertising campaigns diminishes, leading to dissatisfaction among advertisers and potentially driving them away from the platform.
Solution:	To address this type of collusion, SeeGame can introduce two robust mechanisms aimed at ensuring genuine user engagement.
	Boost Watch2earn: This technical feature is designed to actively engage viewers while they watch streams. During a stream, viewrs are asked to do a simple action, for example click on this pop-up, then they receive a boost in the speed at which their rewards are accumulated. This mechanism serves a dual purpose: it incentivizes viewers to pay attention to the stream and interact with the platform actively, thereby verifying that the viewers are genuinely present and engaged.
	Pop-up Confirmation Mechanism: To further ensure active engagement, SeeGame can employ a pop-up window that appears during extended viewing periods. This pop-up will require viewers to confirm their continued presence by interacting with the window. If the viewer fails to confirm within a specified timeframe, the system automatically pauses the accumulation of rewards. This mechanism acts as a safeguard against passive viewing or the use of bots, ensuring that rewards are only distributed to users who are genuinely engaged with the content.

# Table 19Type 5 - Green

Type 5 Collusion:	Stakers might decide to vote in DAO decisions solely for their own interests or the interests of their immediate group, neglecting the overall welfare of the platform.	
Effect:	When DAO decisions are driven by self-interest, it can lead to negative changes that deter other agents from using the platform, ultimately causing operational instability and undermining the platform's integrity.	
Solution:	To address the issue of unfair decision-making, the DAO specification incorporates measures to ensure balanced voting power. Different groups of stakers are assigned varying voting strengths and participation rates based on their expected numbers, ensuring fair representation of all interests. Additionally, the SeeGame team is involved in the decision-making process to support the voting system while preventing any single entity from centralizing control. This balanced approach helps maintain the platform's stability and ensures that decisions reflect the collective interests of all stakeholders.	

# Table 20 Type 6 - Brown

Type 6 Collusion:	Competitive projects in Web3 and traditional streaming platforms, which are direct competitors to SeeGame, may establish exclusive, long-term partnerships with streamers that exclude SeeGame.
Effect:	These exclusive partnerships keep streamers and their audiences tied to specific platforms, preventing SeeGame from integrating them into its ecosystem.
Solution:	SeeGame can also pursue partnerships with other Web3 projects and traditional platforms. Collaborations that provide mutual benefits and added value to both parties are especially valuable. By forming strategic alliances, SeeGame can enhance its appeal and create new opportunities for streamers and viewers, thereby fostering a more inclusive and competitive environment.

#### 4.4.3. How agents can play against each other - conflict of interest between agents

The matrix illustrates how specific agents may have conflicts of interest within the system. The SeeGame task will be to use mechanisms which will balance these agents.

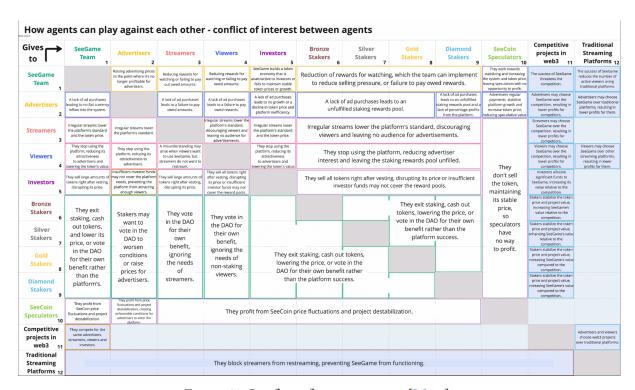


Figure 41 Conflict of interest matrix [Miro]

#### Table 21 Type 1 - Yellow

Type 1 Collusion:	Conflicting behaviors within the system can arise between the SeeGame team and other key agents, including Advertisers, Streamers, Viewers, Investors, and Stakers. These conflicts often become apparent when the SeeGame team makes decisions that affect the distribution of rewards or changes the conditions of compensation. For example, if the team decides to reduce rewards or alter the terms of patricipation, it can create friction with the agents who rely on these incentives. Similarly, conflicts can escalate between the team and investors if the team does not meet the expected milestones, fails to deliver promised returns, or does not provide sufficient entry opportunities into the system.		
Effect:	Agents may leave the platform if the conditions of their participation are altered for the worse or if promises and established terms are not fulfilled. This can lead to dissatisfaction and a lack of trust towards the platform's creators.		

#### Solution:

Aware of these risks, SeeGame must carefully balance rewards and prices to avoid the need for negative changes during the platform's operation. Conducting simulations can help determine safe reward levels and distribution dynamics to ensure the platform's long-term viability.

When changes are necessary, they must be communicated transparently and clearly to the community. Additionally, these changes can be implemented through a decentralized DAO voting process. This approach allows broader involvement and decision-making power for stakers, who can be any token holders. Proposals and conditions for changes are presented to the project's community for their input and approval. This method of managing changes ensures that the community is actively engaged and that decisions reflect the collective interests of all stakeholders, thereby maintaining trust and stability within the platform.

#### Table 22 Type 2 - Dark Blue

# Type Collusion:

This type of collusion occurs between Advertisers and all other agents in the system, including the SeeGame Team, Streamers, Viewers, Investors, Stakers, and \$seecoin Speculators. The manner in which advertisers manage their advertising purchases within the system significantly impacts the overall functionality of the platform. The influx of FIAT into the system hinges on these purchases because buying advertising equates to purchasing tokens from the market. This activity drives up the token's price, which has a direct and positive effect on the platform's operations. Furthermore, these token purchases on behalf of advertisers enhance the token's market value, a factor that might not align with the interests of speculators seeking short-term gains.

#### Effect:

When advertisers reduce or cease their ad purchases, alter their engagement, or change the terms of their transactions, the platform's functionality suffers. This reduction in advertising investment disrupts the inflow of funds necessary for the smooth operation and reward distribution within the platform. Such a disruption can lead to a ripple effect, where the diminished functionality and reliability of the platform discourage other agents, including streamers, viewers, and investors, from continuing their engagement. This, in turn, compromises the platform's overall ecosystem and operational stability.

#### Solution:

To ensure the platform functions effectively, it is essential to maintain robust relationships with advertisers and secure their continued investment in the platform. Advertisers should be made aware that SeeGame campaigns are highly effective in reaching and resonating with their intended audience, thanks to detailed reports on the effectiveness of advertising campaigns provided by the

platform. Additionally, the reward system for viewers, who earn incentives for watching ads while being entertained, fosters a more positive perception of the advertised products and services. This unique approach increases the likelihood of advertisers seeing a favorable return on their investment.

#### Table 23 Type 3 - Light Blue

Type 3 Collusion:	In this type of collusion, conflicts of interest arise between Competitive Projects in Web3 and Traditional Streaming Platforms on one side, and other agents in the system on the other. This scenario describes negative situations from the perspective of competitors when agents choose SeeGame over their platforms.	
Effect:	As a result, SeeGame's competitors may experience a reduction in viewers advertisers, and streamers, as these agents prefer SeeGame, thereby dividing their attention and resources.	
Solution:	This situation is advantageous for SeeGame and is an outcome the platform should actively pursue through effective incentive mechanisms and robust marketing strategies. By continuously improving its offerings and highlighting the unique benefits of the SeeGame platform, the team can attract more agents and maintain a competitive edge over rival platforms.	

#### Table 24 Type 4 - Purple

Type 4 Collusion:	These situations arise from the actions of an agent that destabilize the token price, typically through the sale of their token holdings. Depending on the agent and their capital capabilities, meaning the amount of tokens they hold, such sales can have varying degrees of impact on the token's market price. These scenarios can often involve \$seecoin Speculators, who see potential profit opportunities in such situations.
Effect:	Selling large quantities of tokens or engaging in frequent sales can lead to a significant decrease in the token's price. This decline in value can have several detrimental effects. A low token price can negatively affect the perception of the platform among investors, advertisers, and users. Investors may see the platform as unstable or unprofitable, advertisers might question the platform's reach and influence, and users could lose trust in the platform's value proposition.  In this situation, \$seecoin Speculators may exploit price fluctuations, including declines caused by sales. Their rapid market transactions can further destabilize the price, leading to greater volatility.

# Solution: The solution to this issue is to implement an incentive mechanism that encourages users to stake their tokens. Staking helps stabilize the token price and reduces selling pressure. By offering well-designed incentives for stakers, SeeGame can create a more stable and attractive environment for all participants. Proposed incentives include opportunities to grow their capital through staking rewards, additional bonuses such as airdrops and lotteries, a percentage of the company's profits, and the ability to participate in decision-making processes through DAO governance. By providing these attractive incentives, SeeGame can motivate users to hold onto their tokens, thereby maintaining a stable token price and ensuring the platform's long-term health and attractiveness to all stakeholders.

#### Table 25 Type 5 - Pink

Table 25 Type		
Type 5 Collusion:	Conflicts of interest in this category primarily stem from the behavior of viewer and streamers in relation to other agents in the system: the SeeGame Team Advertisers, Investors, and Stakers. These behaviors are often related to irregula use of the platform or complete cessation of its use. The relationship between streamers and their viewers is crucial for the health of the system. Without active streamers, there are no viewers, who have no reason to stay on the platform, and without viewers, streamers find it unprofitable to restream because their reward depend on the viewers' rewards.	
Effect:	Irregular streams and a lack of viewers lower the platform's standards and the token price. Disruption on either side leads to discouragement of other agents from using the platform and a general decline in quality. Additionally, the absence of viewers and streamers is perceived negatively by advertisers, who are critical to the capital flow into the project.	
Solution:	The solution lies in an incentive program that targets both streamers and viewers. Viewers are rewarded based on the number of ads they watch during streams, while streamers receive rewards based on the total value of the rewards earned by their viewers. It's important to emphasize that both streamers and viewers receive bonus rewards for activities they are already performing—watching streams and restreaming content that would otherwise be broadcast on other platforms. This creates additional value without requiring extra effort induced by the system. By aligning the interests of streamers and viewers through these incentives, SeeGame can maintain a stable and engaged user base, thus ensuring the overall health and attractiveness of the platform for other agents.	

Table 26 Type 6 - Green

Type 6 Collusion:	This collusion involves tensions between stakers and other key agents in the system: the SeeGame Team, Advertisers, Streamers, Viewers, Investors, and other Stakers. Stakers might decide to mass-unstake and sell their tokens, significantly disrupting the token price and devaluing the platform in the eyes of advertisers and other potential users. Another problematic behavior is when stakers vote in DAO decisions solely for their own interests or the interests of their immediate group, neglecting the welfare of the platform and its various agents.		
Effect:	The platform becomes less attractive due to the drop in the \$seecoin price, and the system suffers from the lack of a stabilizing mechanism provided by staking. Negative changes introduced in the DAO, driven by self-interest, can deter other agents from using the platform, causing operational instability.		
Solution:	Several key mechanisms have been introduced to address these issues. The first is offering attractive rewards for staking to attract and retain loyal participants. Additionally, various levels of loyalty and staking programs allow participants to choose their level of engagement and corresponding rewards based on their individual needs and capabilities. Each successive level offers increasingly attractive and valuable rewards. Beside that, to prevent sudden and panic-induced market movements, the unstaking process is designed with a delay period, such as a 14-day waiting period before stakers can fully withdraw their tokens. This delay gives stakers time to rethink their decision and provides a buffer against rapid changes in market sentiment.		
	To address the issue of unfair decision-making, the DAO specification includes measures to ensure balanced voting power. Different groups of stakers are assigned varying voting strengths and participation rates, taking into account their expected numbers, which ensures fair representation of all interests. The SeeGame team also participates in the decision-making process, supporting the voting system without having the ability to centralize the control.		

# Table 27 Type 7 - Orange

Type 7 Collusion:	The first type of collusion occurs between investors and advertisers, where insufficient investor funds may not cover the platform's needs, because the financing of the project before its launch was lower than planned. This results in the need to limit the planned mechanisms and features of the project, which may prevent it from attracting enough viewers. The second type of collusion involves the SeeGame team and competitive projects in Web3, as they compete for the same advertisers, streamers, viewers, and investors.
Effect:	The first scenario, where not enough funds are raised, leads to the necessity of abandoning some well-thought-out parts of the system or the faster depletion of

	funds during its operation. The second scenario is competition with other Web3 projects, where SeeGame competes for the same resources, including viewers, streamers, advertisers, and investors.
Solution:	The key to addressing these collusions lies in ensuring the overall success and smooth operation of the SeeGame platform. When SeeGame functions effectively and demonstrates consistent success, it naturally attracts more investment, helping to secure the necessary funds to support and grow the platform. This, in turn, enhances SeeGame's competitive edge against other Web3 projects vying for the same resources.
	One crucial mechanism designed to support the platform's stability and long-term health is the reserve mechanism. This mechanism is activated during periods of temporary financial shortfalls, ensuring that the platform remains operational even when there is a momentary lack of dollar inflow. By providing a buffer against financial instability, the reserve mechanism helps delay or minimize the risk of system dysfunction, thereby maintaining user confidence and trust in the platform's reliability.

# Table 28 Type 8 - Brown

Type 8 Collusion:	This collusion involves Traditional Streaming Platforms blocking streamers from restreaming, which could severely impact SeeGame's ability to function.
Effect:	This situation poses a significant challenge to the platform's operations. Without streamers, SeeGame cannot provide content to its viewers, undermining its core functionality. The absence of streamers leads to a lack of new content, which in turn diminishes viewer engagement and retention. This creates a vicious cycle where the platform struggles to attract and retain users, which ultimately makes it less appealing to advertisers and investors. The overall vitality of SeeGame is directly tied to the active participation of streamers, making their inability to restream a critical threat to the platform's sustainability.
Solution:	To address this challenge, SeeGame should offer attractive incentives and bonuses to streamers, encouraging them to negotiate with traditional platforms for restreaming permissions. By providing such favorable conditions—such as higher bonuses, exclusive promotional opportunities, and unique engagement tools for their viewers—streamers may find SeeGame more appealing. This could either prompt traditional platforms to allow restreaming or lead streamers to switch to SeeGame entirely. Additionally, establishing partnerships between SeeGame and traditional platforms can facilitate content sharing and co-hosted events, creating a more integrated and cooperative streaming environment.

## 5. Research Insights

This chapter describes the market analysis and overview of existing solutions, both on the side of potential providers and competitors. This is intended to familiarize you with the solutions in place as well as the billing methods, which will help to properly embed the SeeGame project in the market.

#### Executive summary:

- The presented market solutions include individual incentive mechanisms for watching content. Some projects offer token payments for viewing, but this typically involves watching ads or watching videos because those generate earnings.
- Another limitation could be the use of external sites for watching videos or streams that are not as refined or well-known to users as platforms like YouTube or Twitch. SeeGame will combine several solutions from existing projects. Earning will be a secondary activity while watching your favorite creator on the most popular streaming platforms.
- For more engaged participants, projects create special lotteries or contests. In SeeGame case, people who want to fully utilize the potential of platform can stake their tokens, allowing them to earn more tokens while watching creators, receive passive income from staking, and participate in the project's DAO. For the most dedicated stakers, all previous benefits are included, along with increased DAO voting power and profits flowing to the SeeGame company.
- Projects also encourage their users by providing access to events or screenings. SeeGame will periodically create global tournaments, lists of the top streamers and viewers, and events focused on cooperation with streamers, with rewards in tokens given out in every case.

Based on the conducted market research, several methods for obtaining tokens can be identified:

- Watching creators' videos
- Watching creators' streams
- Sharing your computer's bandwidth and memory
- Completing daily tasks
- Participating in airdrops
- Watching educational videos
- Being an engaged participant
- Watching ads
- Receiving tips

- Rating content

Gathering information from the specified projects, besides obtaining tokens, the systems offer additional forms of rewards:

- Points, which can later be exchanged for rewards
- Access to events, screenings, and tickets
- Ranks on private channels

The projects also offer not only the trading of tokens but also additional utilities for them on their platforms:

- DAO Vote or participate in surveys
- Participate in the CLO Launchpad (reward in creator tokens)
- Create NFTs
- Tip the creator

#### 5.1. XCAD Network analysis

XCAD Network is a platform for tokenizing Creators, designed to let YouTubers have their own Cryptocurrency Creator tokens and to reward viewers for engaging with their content directly on YouTube.

With XCAD Network, fans can earn points for free by watching their favorite Creators on YouTube, giving them access to Creator Tokens (each creator involved in the project has their own unique fan token). Viewers need to use the XCAD Plugin or XCAD App to accumulate points by watching at least 80% of a tokenized Creator's video.

Each creator will feature their own leaderboard, allowing users to compete by watching videos and achieving top fan rankings.

Viewers can utilize creator tokens to vote in polls from their favorite YouTubers. Holding more tokens gives a viewer's vote more influence, ensuring the most dedicated fans have the most significant impact on a Creator's content.

Fans can also exchange their Creator tokens for those of other Creators, purchase merchandise, obtain perks like social media follows or Face Time, participate in raffles, and more. [1] [2]

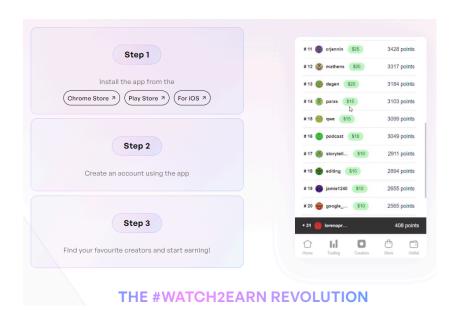


Figure 42 Instructions on how to earn by watching on the XCAD platform

#### How does watch2Earn work?

Users receive daily rewards for watching videos. However, the rewards earned from each subsequent video decrease (e.g., video 1 earns more than video 2, video 2 more than video 3, and so on). Additionally, global rewards for a Creator will gradually diminish over time, promoting long-term sustainability.

Token rewards are calculated algorithmically based on:

- Video Length
- Video Recency (how recently the video was uploaded)
- Video Frequency (number of videos watched within a period)

Users who claim their rewards within the first 24 hours will earn both creator points and tokens. After this period, they will only earn tokens, not points.

Points contribute to a time-based and per-creator ranking system. At the end of each specified period, top-ranking users will receive special prizes.[3]

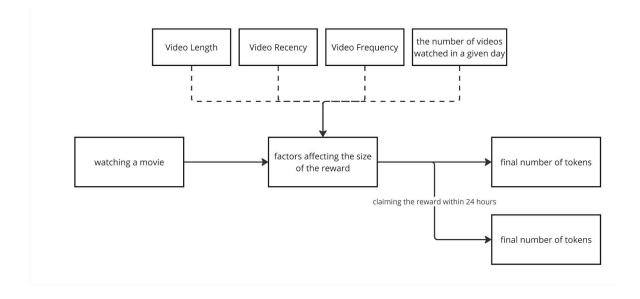


Figure 43 A graph illustrating the watch2earn mechanism for XCAD

Table 29 An example of Donato's (one of the creators from YouTube) first month's creator rewards

Position	Monthly Prize	Position	Monthly Prize
1	\$10,000	26	Free Perk
2	\$5,000	27	Free Perk
3	\$2,500	28	Free Perk
4	iPhone	29	Free Perk
5	PS5	30	Free Perk
6	\$100	31	Free Perk
7	\$50	32	Free Perk
8	\$25	33	Free Perk
9	\$25	34	Free Perk
10	\$25	35	Free Perk
11	\$25	36	Free Perk
12	\$20	37	Free Perk
13	\$20	38	Free Perk
14	\$15	39	Free Perk
15	\$15	40	Free Perk
16	\$10	41	Free Perk
17	\$10	42	Free Perk
18	\$10	43	Free Perk
19	\$10	44	Free Perk
20	\$10	45	Free Perk
21	\$10	46	Free Perk
22	\$10	47	Free Perk
23	\$10	48	Free Perk
24	\$10	49	Free Perk
25	\$10	50	Free Perk

#### **CLO Launchpad**

CLO stands for Creator Liquidity Offering. It's a method to bootstrap liquidity for the Creator Token. CLOs enable users to acquire Creator tokens early—before they are tradable and before users can earn them. Users contribute XCADs to the CLO, which are paired with Creator tokens and permanently locked into liquidity (which is more beneficial than burning because the tokens retain utility). In exchange, users receive a proportionate number of Creator Tokens based on their share of the pool. [4]

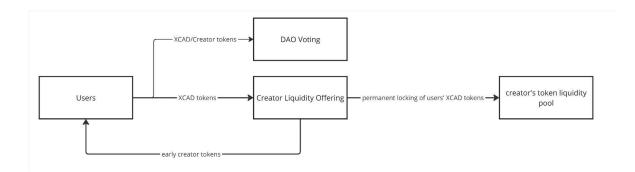


Figure 44 A graph illustrating the CLO Launchpad mechanism for XCAD

#### Network gas fee

To claim earned creator tokens, trade, mint NFTs, or participate in any future trading features added to the XCAD Network plugin, users must have a minimum amount of BNB or ZIL to facilitate transactions. [5]

To prevent new web3 users from encountering significant entry barriers and difficulties with purchasing gas tokens, XCAD has introduced the option to buy these tokens using common methods like credit card, Google Pay, or Apple Pay. [6]

#### 5.2. Script Network analysis

Script.TV will be a groundbreaking online TV platform where both users and content publishers can earn valuable tokens through video streaming. Script.TV will offer a feature-rich application, providing users with continuous entertainment through a variety of exciting channels.

The platform will utilize the blockchain-based Script token (SCPT) to directly incentivize users not only to watch and discover new content but also to contribute their computers' bandwidth and memory to the network. This incentive mechanism is fundamental to powering the network and helps Script.TV avoid the issues that currently plague traditional streaming platforms.

Content partners will earn SPAY tokens for every minute their content is viewed on Script.TV, while users will earn SPAY tokens for watching programs. By using the Script.TV web app, any device can become a Script node, enabling users to earn additional rewards for caching and

distributing video data. Additionally, users can earn through staking, receiving rewards based on the amount and duration of tokens they make available for staking. [1]



Figure 45 A graph illustrating the earn system on the Script Network

#### Script NFTs For Content Partners And Advertisers

Content partners or advertisers can issue NFT-based virtual collectibles as gifts or prizes to content viewers. These could include cards featuring characters or actors from a particular show, digital copies of items or movie clips, among other possibilities. Rare or unique NFTs can become collectible items that viewers can keep or trade. These features will stimulate the platform's growth and offer a more engaging viewing experience for users, while providing content producers with a closer way to connect with their fans.

Script Network will use NFTs to create content that can be purchased, traded, and stored for value, all directly connected to the films and shows on Script.TV. Users will have opportunities to claim and earn time-based rewards, stake valuable NFTs, earn off-chain rewards, and gain access to events, screenings, and cinema tickets through the accumulation of SPAY tokens and Script NFTs.

Script.TV will enable content partners to use these NFTs to engage with their audience. During broadcasts, competitions, quizzes, or gift giveaways can be held for viewers. Once the NFT marketplace launches, users will have the option to sell the received tokens and NFTs as they wish.

[2]

#### **Reward System**

Given that Script Network is and always will be focused on a broad user base, it connects to various reward mechanisms and platforms, offering multiple ways for users to earn rewards.

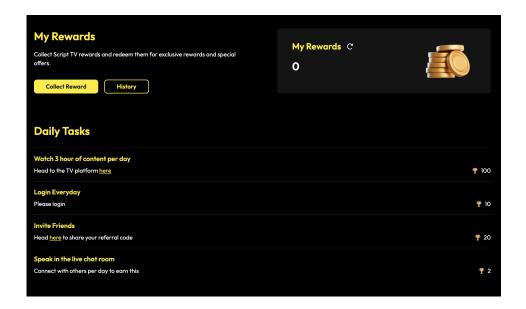


Figure 46A graph illustrating dashboard for Script points

Rewards are available daily by completing tasks, similar to those in a computer game, and earning points. These tasks range from watching one hour of content per day to signing in daily and hitting 'claim,' as well as making referrals. The key aspect of Script Points is that they exist solely on the platform—there is no other way to accrue Script Points outside of the script.tv website.

Script also creates periodic collaborations where opportunities to earn rewards are time-limited, such as the collaboration with the Zealy platform, where tasks could be completed until Q2 2023.

[3]

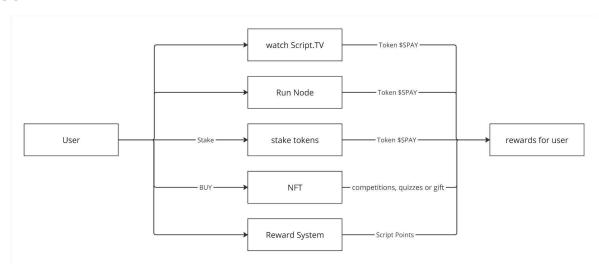


Figure 47 A graph illustrating the reward for users mechanism for Script Network

However, the team notes that the tokens will only be exchangeable after the mainnet launch.

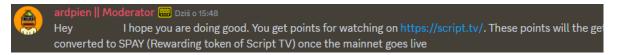


Figure 48 Response from the project's official Discord

#### 5.3. Verasity analysis

Verasity is a leading company providing rewarded video player technology to major publishers worldwide. Its patent-pending video player enables tokenized rewards (VRA) and loyalty schemes within a video player wallet. This technology allows viewers to earn VRA rewards for watching their favorite videos. Publishers, content creators, and live streamers can offer VRA rewards for watching videos on their sites.

Verasity's technology is now integrated into several video players used on publishers' sites, including YouTube, Twitch, Vimeo, JWPlayer, Brightcove, Kaltura, VideoJS, Flowplayer, and Ooyala, which together represent over 95% of all video players utilized.

#### How to get VRA tokens?

Simply click on "Earn VRA" in the top menu of the VeraWallet website. Publishers, content creators, and live streamers have listed their offerings in this section. Click on any video to watch, and you will be automatically redirected to the publisher's site. You will see a trophy icon on the video. When the trophy icon turns green, click it to claim your reward.



Figure 49 A graph illustrating the mechanism of earning \$VRA tokens

Another way to earn VRA tokens is by watching educational videos on the CoinSuper exchange platform, with which Verasity has a partnership. On this platform, there is an immediate VRAB/ETH cryptocurrency trading pair available. [1] [2]

Official guide from the Verasity platform on earning VRA by watching videos: [3]

#### 5.4. StoryFire analysis

StoryFire is a vibrant digital platform tailored for content creation, sharing, and community engagement. It equips creators with the tools and space to tell their stories, host content, and connect with audiences. The platform fosters creativity and collaboration, offering features that support written, video, and interactive storytelling. StoryFire aims to build a supportive community where creators can expand their audience, interact with fans, and monetize their content. [1]

The BLAZE token provides additional opportunities for creators to earn revenue and engage with their audience. Viewers can earn BLAZE tokens by watching content and referring new users to the platform, which incentivizes engagement and supports creators' work.

To further motivate the community, creators have established a reward pool for the top 10,000 most engaged participants. Tokens for this pool will primarily come from a portion of the transaction fees paid by users on the platform. There are nine categories for users to choose from, allowing them to increase their score and ultimately rank among the top participants. [2]

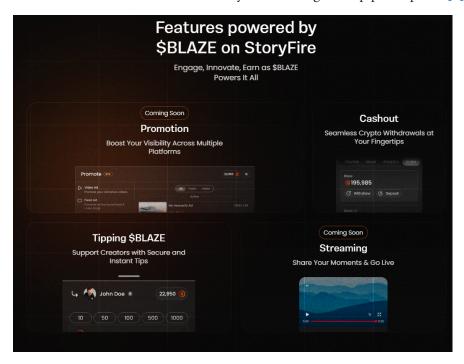


Figure 50 Presentation of the StoryFire platform mechanisms

The rewards for users are significantly influenced by the creators themselves, who can set the values that their audience will receive for watching ads.

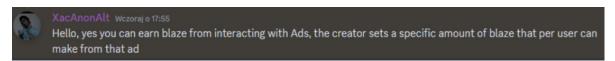


Figure 51 Response from the project's official Discord

Another earning option is receiving tips based on the level of engagement, applicable to both creators and users.



Figure 52 Response from the project's official Discord

#### 5.5. StreamCoin analysis

MeiTalk is a platform designed to provide multi-streaming services on blockchain, consisting of three layers: the MeiTalk Service Layer, MeiTalk Streaming Encoding Layer, and MeiTalk Blockchain Layer. In the MeiTalk ecosystem, StreamCoin (STRM) is used to facilitate all activities.

With MeiTalk, users can connect to multiple live-streaming platforms, comment and engage with live streamers, earn StreamCoin (STRM) by watching ads, and reward their favorite streamers with StreamCoin (STRM).

Streamers using the MeiTalk platform can simulcast to platforms like YouTube, Kuaishou, Twitch, AfreecaTV, and more. They can reach and engage fans with special filters, earn StreamCoin (STRM) rewards, create multilingual subtitles for their content, mint their videos, and upload them to the NFT marketplace for sale, among other features.

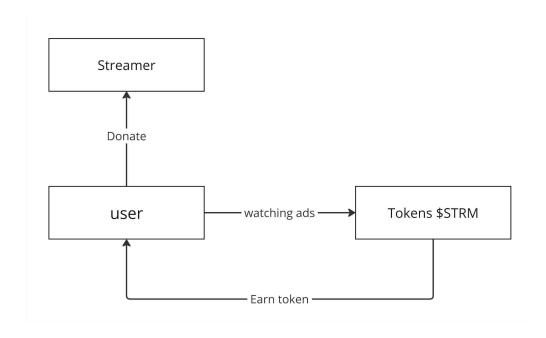


Figure 53 A graph illustrating flow tokens \$STRM in user hands

With MeiTalk Wallet, both users and streamers can store and access their tokens on the MeiTalk platform. The MeiTalk Wallet is the exclusive digital wallet for the platform, specifically designed for StreamCoin (STRM).[1] [2]

# MelTalk's rewarding system lets streamers and viewers earn crypto from watching ads. Content creators can also be rewarded by their fans using STRM. Send STRM Support streamers with cryptocurrencies by watching Advertisement Show Ads Receive rewards with cryptocurrencies by watching Advertisement

Figure 54 The reward system on the StreamCoin platform

For streamers and viewers to earn STRM tokens by watching ads, an update to Meitalk is necessary, which has not yet been implemented in the current state of the platform.

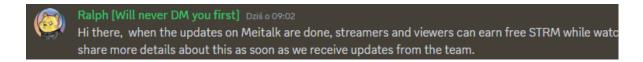


Figure 55 Response from the project's official Discord

#### 5.6. Ritestream analysis

The Ritestream app offers a platform for consumers to watch and interact with content while supporting their favorite celebrities and actors by purchasing limited edition NFTs. The entire ecosystem is powered by the RITE coin, a native token used for investing in independent film projects, purchasing NFTs, and watching content.

Consumers can earn RITE coins by rating content on the Ritestream app. By watching, interacting with, and rating content, users can accumulate more RITE coins.

On the Ritestream app, users can watch content and engage by rating scenes, participating in polls, and rating the final product. This community engagement provides real-time data on the app's content and allows creators to receive support from their fans.

These engagements are rewarded with RITE coins, which can be used to watch more content, fund future projects, or invest in specially curated NFTs.

By using Ritestream's "watch-to-earn" model, audiences can accumulate RITE coins by viewing and rating content. These coins can then be used to watch additional content or invest in projects being produced on the Launchpad. [1][2][3]

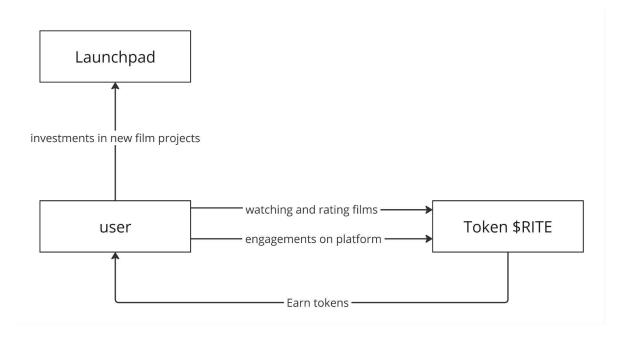


Figure 56 A graph illustrating flow tokens \$RITE in user hands

It's important to remember that the W2E service has not been introduced yet, but the team plans to implement it.

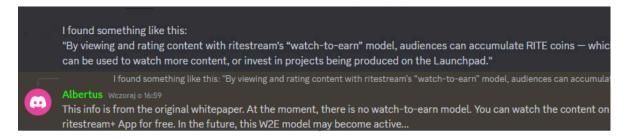


Figure 57 Response from the project's official Discord

## 5.7. AIOZ Network analysis

The W2E options have been disabled in the project.

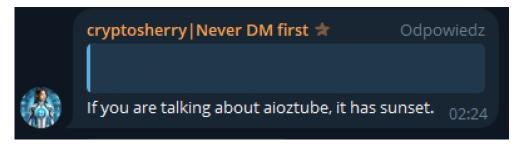


Figure 58 Response from the project's official Discord

#### 5.8. Theta Network analysis

The W2E options have been disabled in the project.

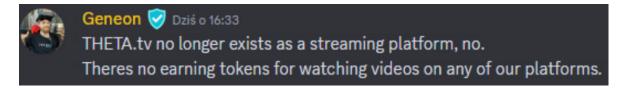


Figure 59 Response from the project's official Discord

#### 6. Conclusion

#### 6.1. Next step

The document allowed us to define key assets, mechanisms, and agents within the system, as well as describe the resulting change in the dynamics of their relationships. A detailed analysis of the needs and goals of the entire system resulted in a thoughtful response in the form of versatile and scalable solutions. Additionally, visualizations and mathematical specifications serve as tools facilitating understanding for developers and investors. The entire document not only aids in organizing knowledge but also serves as excellent marketing and sales material. By dedicating time to understanding the dynamics of the entire system, we can confidently proceed to the second phase of project work.

Based on the above specifications, our team of experts will build upon this to create a Digital Twin of this model in the form of code in the cadCAD framework within the Python environment. It serves as a multidimensional digital representation of the system and all its components. With this foundation, simulations of the entire system will be conducted in hundreds of different scenarios using Monte Carlo and A/B parameter variations to simulate potential outcomes and inform appropriate changes in system design.

#### 6.2. FAQ

#### • How does the SeeGame system work?

The SeeGame system is a platform that connects advertisers, streamers, and viewers, offering financial rewards in \$seecoin tokens. Streamers and viewers earn \$seecoin based on their activity, with streamers benefiting from their viewers' earnings. Advertisers introduce FIAT into the system, which is then distributed for payments, staking rewards, project profits, and token burning. The system includes four loyalty program levels, offering higher APRs and shorter reward times for higher staking. Additionally, stakers gain voting power in the DAO. The system is designed to be resilient, maintaining rewards during financial shortfalls and supporting long-term value appreciation.

#### • What is the utility of the \$seecoin token?

The \$seecoin token is fundamental to the SeeGame ecosystem, serving several key functions: it rewards streamers and viewers, funds the project, powers the incentive system, and influences voting power within the DAO. The token is transferable, exchangeable, and initially tradable on the SeeGame platform using an Automated Market Maker model.

- What are the assets in the system?
- 1. FIAT: Provided by advertisers, it funds rewards for streamers and viewers, supports project profits, and ensures economic stability through conversion into \$seecoin.
- 2. \$seecoin Token: The native token, used for trading, rewards, project funding, the incentive system, and influencing DAO voting power. It is crucial for the platform's economic stability and functionality.

#### How do advertisers pay?

Advertisers pay by purchasing advertising packages using FIAT currencies. This FIAT is then used to buy \$seecoin tokens from the market and distributed across the system for payments, rewards, treasury contributions, project profits, and token burning.

#### • What is buyback and burn?

Buyback and burn is a mechanism where a portion of funds from advertising sales is used to buy \$seecoin tokens from the market, which are then permanently removed from circulation by being sent to a zero address. This reduces the token supply, aiming to create mild deflation and increase the token's valuation.

#### How are viewers rewarded?

Viewers are rewarded through the Watch2Earn mechanism by earning \$seecoin tokens for watching streams. They accumulate rewards over a specified time, during which they view advertisements. The ad revenue funds these rewards. Participation in the loyalty program by staking \$seecoin tokens can reduce the reward accumulation time, increasing their total rewards. The reward size is determined by the \$seecoin pool and advertisement revenue, with a cap in place, and can continue even during payment interruptions from advertisers.

#### • How can viewers boost their reward accrual?

Viewers can boost their reward accrual by participating in an activity verification mechanism, which requires them to perform simple actions during streams, such as clicking the mouse or playing a mini-game. Completing these activities enhances their reward accumulation, resulting in a larger reward for the next payout. This mechanism also helps secure the system and manage user activity.

#### • Is the reward for the time spent on a stream always the same?

No, the reward for the time spent on a stream is not always the same. The reward size can vary based on the amount of \$seecoin in the pool, the number of advertisements displayed, and the staking level of the viewers. Additionally, during periods of insufficient advertiser funds, the reward sizes may decrease proportionally to avoid exceeding the set inflation level.

#### How are streamers rewarded?

Streamers are rewarded through the Stream2Earn mechanism, earning \$seecoin tokens based on the amount their viewers earn while watching their restreams. The more viewers and higher staking levels their audience has, the greater the rewards for the streamers, encouraging them to grow their communities and promote staking.

#### What happens if there are no advertisers?

If there are no advertisers, the system relies on the System Coverage metric to manage rewards. When advertiser funds are insufficient, the inflation mechanism activates to mint additional \$seecoin tokens, ensuring the continuity of rewards for viewers and streamers.

#### • What is the System Coverage mechanism?

The mechanism system coverage is a metric that assesses the health of the SeeGame system by comparing the amount of \$seecoin distributed to users with the amount obtained from advertiser fund conversions. It informs project creators about the financial coverage of rewards and available reserves. When coverage is below 1, the system burns a portion of advertiser revenue to reduce

inflation. When coverage is at or above 1, it rebuilds the \$seecoin reserve pool. This metric helps manage risk and ensure the system's stability by adjusting rewards and controlling token supply.

#### • What is the Loyalty program?

The Loyalty Program in the SeeGame system is a multi-layered staking mechanism designed to stabilize the \$seecoin token price by encouraging users to stake their tokens. It includes four levels: Bronze, Silver, Gold, and Diamond, each offering different benefits such as faster reward accrual, voting in the DAO, and profit sharing. Higher staking levels allow users to earn rewards more quickly. Stakers can exit at any time but lose associated privileges. The program incentivizes community engagement and supports streamers by tying their earnings to their viewers' staking levels.

#### What bonuses can stakers expect?

Each level offers progressively better benefits, enhancing the staker's experience and incentives within the SeeGame system.

- 1. Faster Reward Accrual: Higher staking levels reduce the time required to earn rewards through the Watch2Earn mechanism.
- 2. DAO Voting Rights: All stakers gain the ability to vote in the DAO, influencing platform decisions. The distribution of voting power is as follows:

Bronze Stakers: 40%Silver Stakers: 30%

- Gold Stakers: 15%

- Diamond Stakers: 10%

- 3. Airdrops and additional bonuses: Available for Gold and Diamond tier stakers.
- 4. Profit Sharing: Diamond tier stakers, the top 10 from the Gold tier, receive regular profit shares from the platform.
- Who participates in the DAO and how is voting power distributed?

Participants in the SeeGame DAO include members of the stakers' loyalty program and the project team. Voting power is distributed as follows:

- Bronze Stakers: 40%

- Silver Stakers: 30%

- Gold Stakers: 15%

- Diamond Stakers: 10%

- Team: 5%

Also, different methods are used to calculate voting power within each group, considering the expected size of these groups to ensure fair representation and prevent monopolization by any single group.

• When does deflation occur in the system and how many tokens are burned under which mechanisms?

Tokens are burned in two scenarios which also introduce deflation to the system:

- 1. Buyback and Burn: \$seecoin tokens are bought back from the market using funds from advertising sales and then permanently burned by sending them to a zero address. The amount burned can vary based on economic conditions and DAO decisions and can be treated as a marketing event. .
- 2. Coverage Mechanism: When system coverage drops below 1, a portion of advertiser revenue allocated to the reserve pool is automatically burned to reduce inflation. This continues until coverage reaches or exceeds 1, after which the system rebuilds the \$seecoin reserve pool.
  - When does inflation occur in the system and under which mechanisms?

Inflation occurs when the inflow from advertisers is insufficient to cover all \$seecoin rewards for viewers. The system mints additional \$seecoin tokens to ensure the continuity of rewards for viewers and streamers. This mechanism is activated when system coverage drops below 1, with a maximum inflation level of 10% relative to the initial total supply to prevent uncontrolled dilution.

# 6.3. Appendix

Below are all the external documents that relate to the document:

- [External][SeeCoin] Staking
- [External][SeeCoin] Tokenomics V3
- External SeeGame Agents Collusion
- Link to miro with Stock&Flow Model

#### 6.4. Lists of Tables

Below is a list of all figures in the document:

Table 1 Token Allocation	18
Table 2 Initial Metric	18
Table 3 Static Vesting	20
Table 4 Dynamic Vesting with different coverage value	21
Table 5 The table below defines the parameters of the Fee distribution mechanism.	28
Table 6 Staking Tier	32
Table 7 The table below defines the parameters of the Staking mechanism.	33
Table 8 Example: max_reward=0.06 it correspond with 6% Max APR in Bronze staking	35
Table 9 The table below defines the parameters of the Diamond Staking Rewards mechanism.	36
Table 10 The voting power of each group is described by the following parameters.	40
Table 11 The table below defines the parameters of the Coverage mechanism.	46
Table 12 The table below defines the parameters of the Watch2earn mechanism.	49
Table 13 The table below defines the parameters of the Boost Watch2earn	52

#### mechanism.

Table 14 The table below defines the parameters of the Inflation mechanism.	57
Table 15 Type 1 - Red	84
Table 16 Type 2 - Yellow	85
Table 17 Type 3 - Blue	86
Table 18 Type 4 - Purple	87
Table 19Type 5 - Green	88
Table 20 Type 6 - Brown	89
Table 21 Type 1 - Yellow	90
Table 22 Type 2 - Dark Blue	91
Table 23 Type 3 - Light Blue	92
Table 24 Type 4 - Purple	92
Table 25 Type 5 - Pink	93
Table 26 Type 6 - Green	93
Table 27 Type 7 - Orange	94
Table 28 Type 8 - Brown	95
Table 29 An example of Donato's (one of the creators from YouTube) first month's creator rewards	101
6.5. Lists of Figures	
Below is a list of all figures in the document:	
Figure 1 Agents in System	11

Figure 2 Payment Flow	12
Figure 3 Staking Overview	12
Figure 4 DAO Overview	13
Figure 5 Rewards flow	13
Figure 6 Inflation case	14
Figure 7 Assets Flywheel	15
Figure 8 Vesting Schedule	20
Figure 9 Dynamic Vesting Team	23
Figure 10 Dynamic Vesting Tournaments	23
Figure 11 Dynamic Vesting Seed round	23
Figure 12 Dynamic Vesting Reserve	23
Figure 13 Max Supply of various project	25
Figure 14 Marketcap of various project	25
Figure 15 Initial FDV of various project	25
Figure 16 Listing price of various project	25
Figure 17 FDV of Various Projects	26
Figure 18 Inflow Split	27
Figure 19 BuyBack&Burn	30
Figure 20 Diamond profit	36
Figure 21 Voting power Scheme	39
Figure 22 Voting power for Bronze Tier	41
Figure 23 Voting power for Silver Tier	42
Figure 24 Voting power for Gold Tier	43

Figure 25 Coverage over time.	47
Figure 26 Rewards Reserve and Minted Inflation.	47
Figure 27 Watch2Earn	48
Figure 28 Rewards Threshold base on token price.	5(
Figure 29 Rewards for Viewers.	51
Figure 30 Boost Rewards compare.	53
Figure 31 Stream2Earn	54
Figure 32 Number of Viewers over time.	55
Figure 33 Tokens as rewards for streamers over time.	55
Figure 34 Inflation process	56
Figure 35 Total Supple under minting tokens scenario	58
Figure 36 Rewards Reserve and Minted Inflation.	60
Figure 37 Coverage over time.	60
Figure 38 Stock&Flow diagram	62
Figure 39 Agent relationships map [Miro]	64
Figure 40 Connection between Agents against SeeGame [Miro]	84
Figure 41 Conflict of interest matrix [Miro]	90
Figure 42 Instructions on how to earn by watching on the XCAD platform	99
Figure 43 A graph illustrating the watch2earn mechanism for XCAD	100
Figure 44 A graph illustrating the CLO Launchpad mechanism for XCAD	102
Figure 45 A graph illustrating the earn system on the Script Network	103
Figure 46A graph illustrating dashboard for Script points	104
Figure 47 A graph illustrating the reward for users mechanism for Script Network	104

Figure 48 Response from the project's official Discord	105
Figure 49 A graph illustrating the mechanism of earning \$VRA tokens	105
Figure 50 Presentation of the StoryFire platform mechanisms	106
Figure 51 Response from the project's official Discord	107
Figure 52 Response from the project's official Discord	107
Figure 53 A graph illustrating flow tokens \$STRM in user hands	108
Figure 54 The reward system on the StreamCoin platform	108
Figure 55 Response from the project's official Discord	109
Figure 56 A graph illustrating flow tokens \$RITE in user hands	110
Figure 57 Response from the project's official Discord	110
Figure 58 Response from the project's official Discord	111
Figure 59 Response from the project's official Discord	111

#### 6.6. List of all mathematical formulas

Formula 1. Dynamic vesting.

Formula 2. Dynamic Vesting functions.

Formula 3. Income Distribution Vector.

Formula 4. Income Distribution.

Formula 5. BuyBack.

Formula 6. Staking Rewards pool shares.

Formula 7. Staking Rewards.

Formula 8. Diamond Revenue.

Formula 9. Voting power.

Formula 10. Voting power function.

Formula 11. Conviction voting.

Formula 12. Rewards pools.

Formula 13. Coverage.

Formula 14. Threshold Reward for viewers.

Formula 15. Base reward value condition.

Formula 16. Base Reward for viewers.

Formula 17. Reward for viewers.

Formula 18. Streamers Rewards.

Formula 19. Base mint rewards.

Formula 20. Rewards minting.

Formula 21. Burn Reserve.

#### 6.7. Sources

Below are all the materials that were provided to the team and on which this document was based:

- https://pitchdeck.seecoin.io/
- https://www.seegame.io/en/streamer
- Google meet call at 05.07.2024
- Google meet call at 19.07.2024
- The survey on expectations for MDD completed on 05.07.2024

#### Other:

1. Research sources

#### XCAD Network:

- https://docs.xcadnetwork.com/xcad-network-public-documentation
- <a href="https://xcadnetwork.com/plugin">https://xcadnetwork.com/plugin</a>
- <a href="https://docs.xcadnetwork.com/xcad-network-public-documentation/xcad-ecosystem/creat-or-economics/watch2earn">https://docs.xcadnetwork.com/xcad-network-public-documentation/xcad-ecosystem/creat-or-economics/watch2earn</a>
- <a href="https://docs.xcadnetwork.com/xcad-network-public-documentation/xcad-ecosystem/clo-launchpad">https://docs.xcadnetwork.com/xcad-network-public-documentation/xcad-ecosystem/clo-launchpad</a>
- <a href="https://docs.xcadnetwork.com/xcad-network-public-documentation/xcad-ecosystem/plugi-n-and-app/wallet/buying-gas-bnb-or-zil">https://docs.xcadnetwork.com/xcad-network-public-documentation/xcad-ecosystem/plugi-n-and-app/wallet/buying-gas-bnb-or-zil</a>
- https://buy.xcadnetwork.com/en

#### Script Network:

- https://whitepaper.script.tv/for-users/tokens
- https://whitepaper.script.tv/for-users/script-nfts

- https://whitepaper.script.tv/getting-started-guides/reward-system-script-points-zealy-guild -galxe-+-more

Verasity:

https://steemit.com/verasity/@icemanx/3-ways-to-earn-vra

https://medium.com/verasity/how-to-earn-vra-by-watching-video-content-or-ads-3748ad432b65 https://verawallet.io/earn-vra?c=PL

StoryFire:

https://cryptototem.com/storyfire-blaze/

https://medium.com/@mrvilaiin/storyfire-is-a-social-media-platform-for-both-written-and-video-content-that-aligns-the-incentives-cc367be153b8

StreamCoin:

 $\frac{https://cryptotvplus.com/2022/04/stream-and-earn-with-meitalk-on-the-streamcoin-blockchain/https://stream-coin.com/$ 

Ritestream:

https://medium.com/ritestream/would-you-like-to-get-paid-to-watch-films-tv-shows-yeah-theres-an-app-for-that-6b11e2240089

https://medium.com/ritestream/introducing-the-cryptocurrency-of-creators-rite-coin-will-power-the-launchpad-for-film-tv-ad92d4e077cc

https://www.ritestream.io/watch