

# Axie Infinity



Official Axie Infinity Whitepaper, last updated November 2021



## Axie Infinity Universe

Axie Infinity is a universe filled with fierce, collectible creatures called Axies. Axie features a player-owned economy where players have complete ownership of their digital assets and can buy, sell, and trade them just like physical trading cards and collectibles.

The Axie universe is always expanding through new games and experiences. Many of these experiences will allow players to compete with each other using complex strategies and tactics to attain top rankings or be rewarded with coveted resources. Others will have them complete quests, defeat bosses, and unlock in-depth storylines.

The number of Axie combination is almost infinite. Each Axie has a variety of parts based on a unique genetic code. These genes correspond to body parts which can be interpreted in different ways by different experiences. For example, the first generation of Axie games have all featured systems where Axies can play cards or use moves in battle determined by their body parts.



## Community & Economy

All art assets and Axie genetic data can be easily accessed by 3rd parties, allowing community developers to build their own tools and experiences in the Axie Infinity universe. While still in early access, Axie is ranked the #1 Ethereum game by daily, weekly, and monthly active users. Players have spent over 1M ETH (4B+ USD) so far in the Axie universe.

While Axie is a fun game, it's also taken on characteristics of a social network and earning platform due to the strong community and opportunity to truly own resources earned within the games.

A key difference between Axie and a traditional game is that Blockchain economic design unlocks the ability to have complex player-owned economies and reward players who are able to reach advanced levels of skill. Players are able to have fun and work towards ambitious goals while simultaneously earning potential resources that will have real monetary value due to an open economic system and demand from other players - "Play-and-Earn".

Currently, players can gain more resources to advance in the game by:

- Competing in Battles to win leaderboard prizes as well as Smooth Love Potions (SLP)
- Breeding Axies to produce new ones with particular Body Part combinations
- Collecting and speculating on rare Axies such as Mystics and Origins
- Creating art and content
- On-boarding newcomers to the Axie universe

## Mission

We're here to create an ecosystem of amazing Axie gaming experiences with community and player-owned economies as foundational pillars. By doing this we will **deliver property rights to all users of the internet, starting with gamers.**



Axie is a digital nation where people globally come together to play, work, and make lifelong connections.

*When we started this journey 4 years we weren't sure where we'd end up but we believed that if we asked the right questions we could build something with you that had never been seen before. We asked:*

- *What if we built a game that could onboard the world to Web3?*
- *What if we could make crypto nostalgic, educational, and immersive?*
- *What if a game could be built by developers and players working together through aligned incentives?*

*Welcome to the Axie revolution.*

*Disclaimer: Please note that anything written in this white paper should not be taken as financial advice. Axie is a bleeding-edge game that's incorporating unfinished, risky, and highly experimental technology. Development priorities, roadmaps, and features are subject to radical overhaul based on research, traction, feedback from the community, and a myriad of other factors.*



# Gameplay



Axie Infinity is structured as an open-ended digital pet universe. Axie NFT assets can be seen as tickets that grant access to all current and future experiences build on top of the Axie IP. In this way, Axies serve as base layer for a world of infinite experiences.

The Axie core team will build functionality for the game assets associated with the Axie brand in concurrence with the community. The Axie universe must be fun above all else; only by having an immersive gaming experience can the ecosystem attract enough participants to accrue value to the network.

# Battling



In October 2018, the Axie core team released the first battle system built on top of the Axie game assets. The battle system was structured as an "idle battle" system with inspiration from games like "Final Fantasy Tactics" and "Idle Heroes".

Classic, released in December 2019, grew the Axie community from a ragtag band of a few hundred missionaries to millions. The game is structured as a turn-based card battler where players create teams of Axies to duke it out in the arena. Axies draw cards based on the body parts they possess and you must play these cards at the optimal time and order to maximize your chance of victory. Classic was the first game ever to distribute in-game resources as ERC20 tokens.

On April 6th, 2022, Axie Infinity: Origins was [released in early access](#). Origins is an evolution of Axie's tactical card battler format. It introduces a real-time combat system, 3 free starter Axies, and vertical progression through Rune & Charm crafting.

Origins features:

- **Free starter Axies.** Let your friends and family fall in love with Axie before needing to touch crypto and NFTs!
- **Upgraded Axie art** makes each Axie more visually distinct and special.
- **Sequential turns** for a faster, more dynamic experience.
- **Energy / cards are reset each turn** to encourage aggressive play-styles.
- **Card changes.** We've kept most cards in line with their original spirit.
- **Eye & Ear Cards.** This is the first time that eyes & ears have ever had cards!
- **Runes / Charms as power-ups.** Our first glimpse of Axie progression and upgrading is here!
- **Critical Hits** have been replaced by a Rage mechanic.

Much like Pokemon has gone through numerous iterations and types of battle systems, we also expect Axie to have many variations of battles over the years to come.



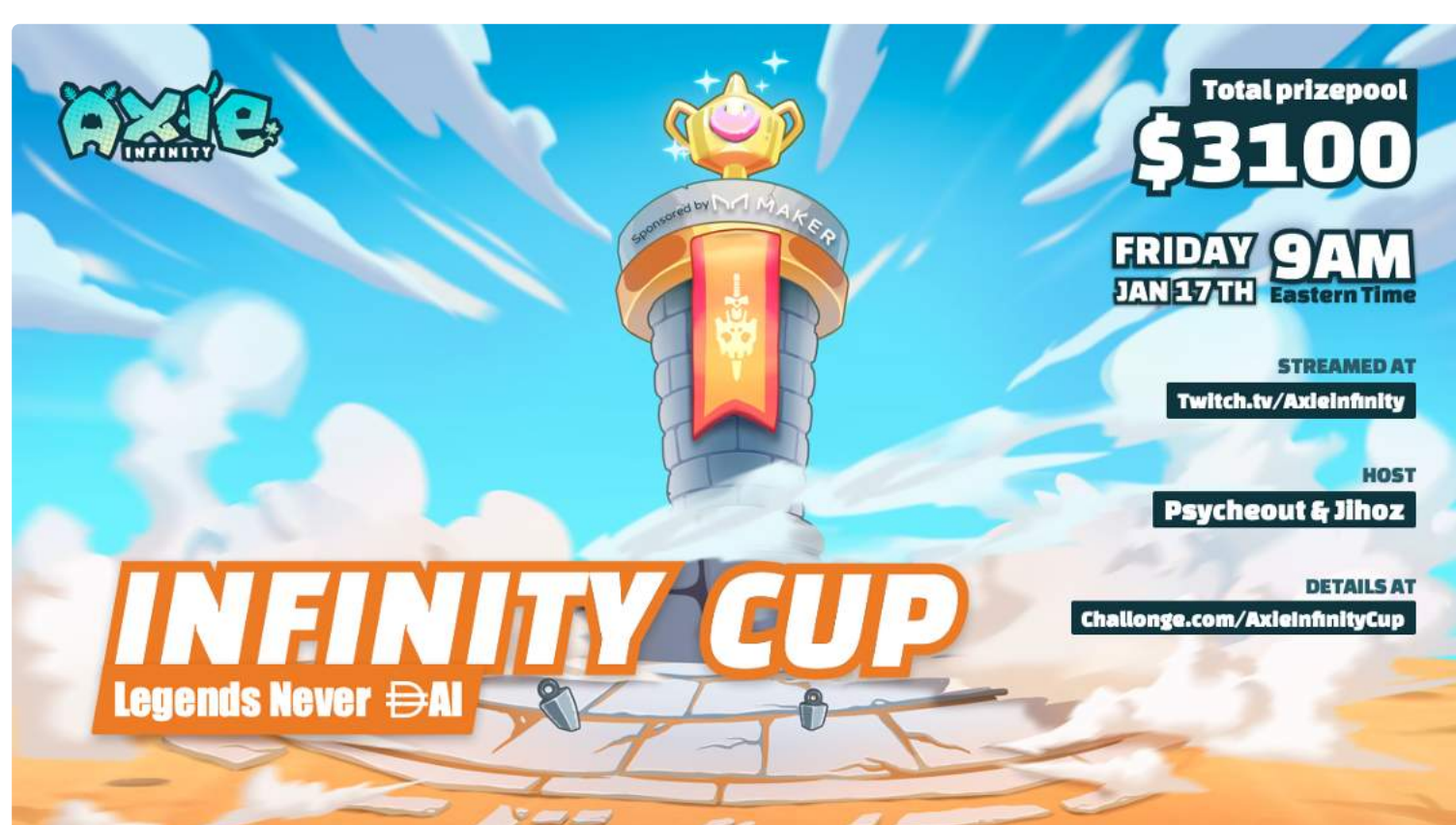
# Tournaments and Esports

Due to its skill-based, competitive nature, the Axie battle system is a good fit for competitive play and Esports. We believe this is a critical aspect for future growth and we have seen how engaged the players become when there is money on the line.

Axie players have already earned thousands of dollars worth of cryptocurrency through numerous tournaments hosted by the core team or 3rd party sponsors.



Highlight video from the recent Axie cup sponsored by Wirex.





# Breeding and \$SLP



Like real-world pets, Axies can be bred to create new offspring. To avoid hyperinflation of Axies there is a maximum amount of times an Axie can be bred before it is sterile.

Breeding an Axie costs AXS and some Smooth Love Potions depending on how many times the Axies have been bred. The AXS portion is variable and subject to adjustment based on a myriad of economic factors.

Axies cannot be bred with their children and Axies cannot breed with their siblings.

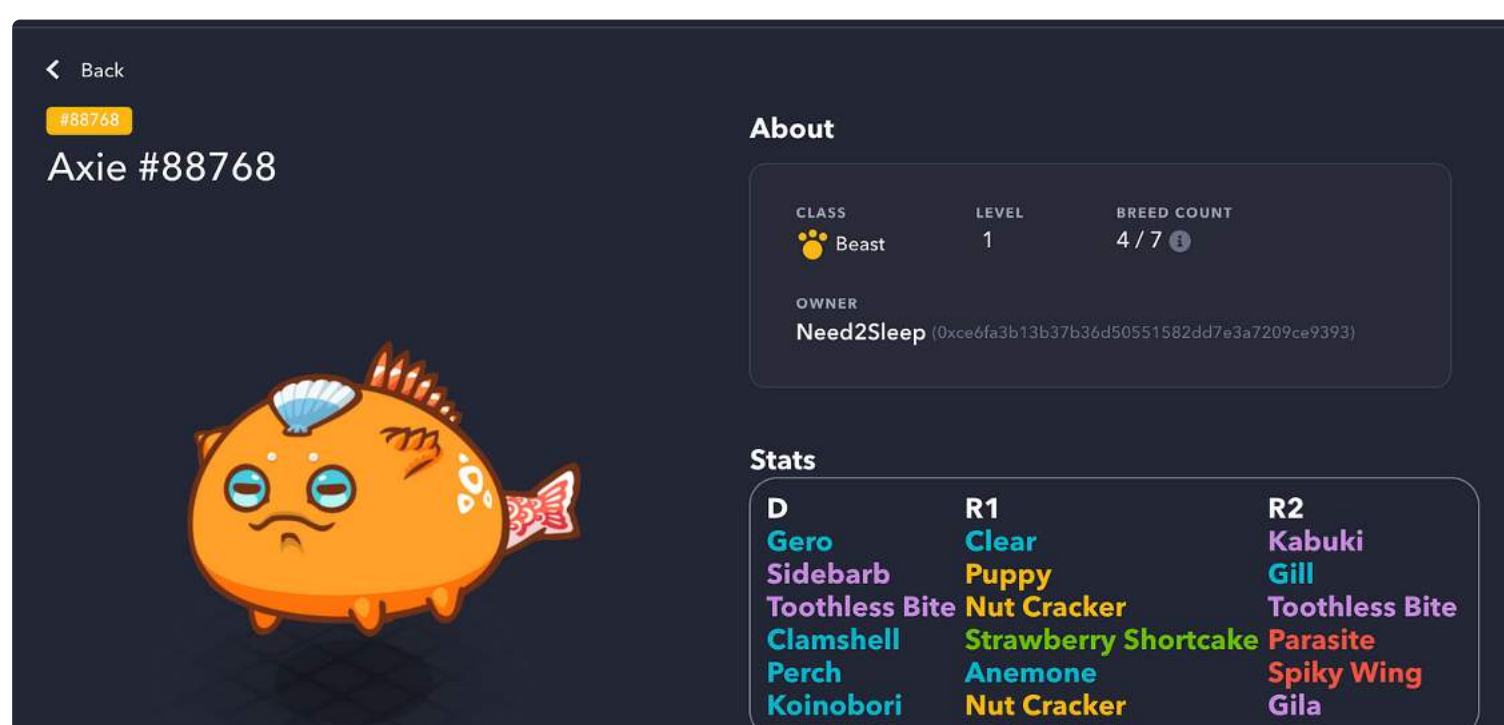
Axie Infinity does not sell \$SLP to players directly.

Breed Count	Breed Number	SLP Cost Per Parent
(0/7)	1	900
(1/7)	2	1350
(2/7)	3	2250
(3/7)	4	3600
(4/7)	5	5850
(5/7)	6	9450
(6/7)	7	15300

Smooth Love potions can be earned by playing the game in the PvP Arena. Once you earn them, you can sync them to your wallet from [this page](#).

## Genetics

Each Axie has 6 body parts as well as a body shape. For each part, an Axie possesses 3 genes. A dominant (D), recessive (R1), and minor recessive gene (R2).



The dominant gene is what determines the body part that is physically present on the Axie. When breeding, each gene has a chance to be passed down to offspring:

**Dominant (D):** 37.5% chance to pass this gene to offspring.

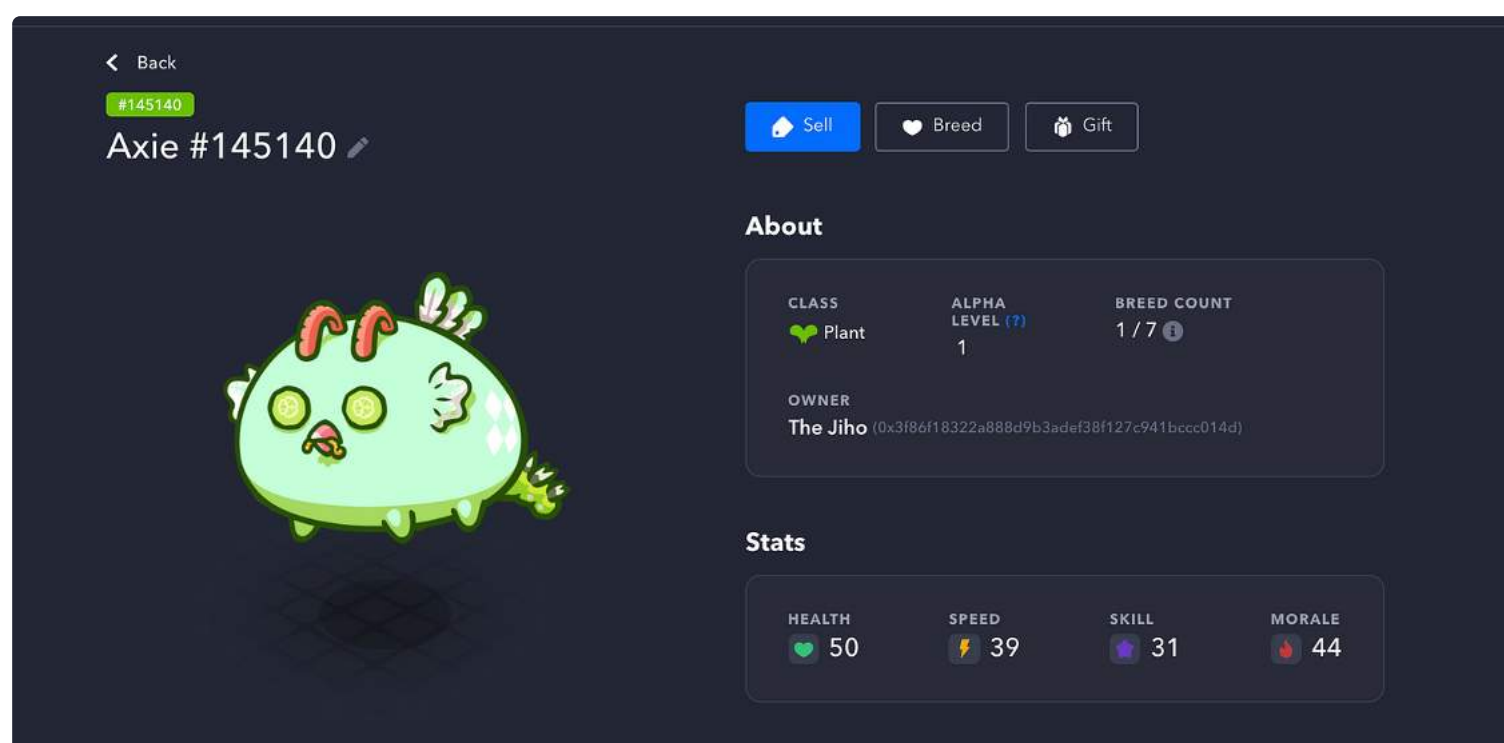
**Recessive (R1):** 9.375% chance to pass this gene to offspring.

**Minor Recessive (R2):** 3.125% chance to pass this gene to offspring.

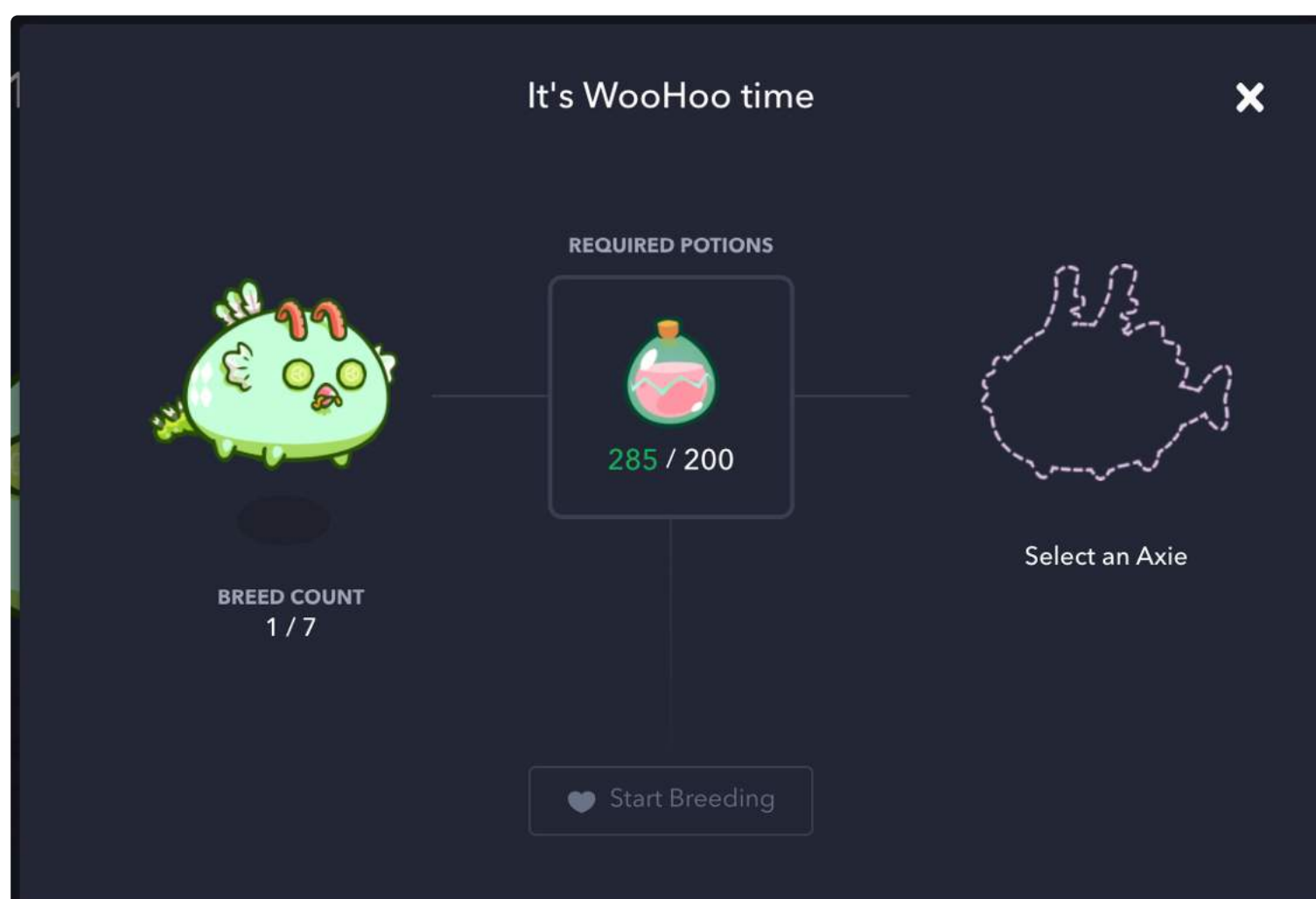
You can use [this calculator](#) to look up the probabilities when breeding 2 Axies.

While we don't show recessive genes on our website yet, you can view them using [this extension](#) built by one of our community members, Freak.

In order to breed, simply go to the page for one of your Axies by clicking on it through your [inventory](#).



Next, click "Breed".



Then select an Axie to pair it with!

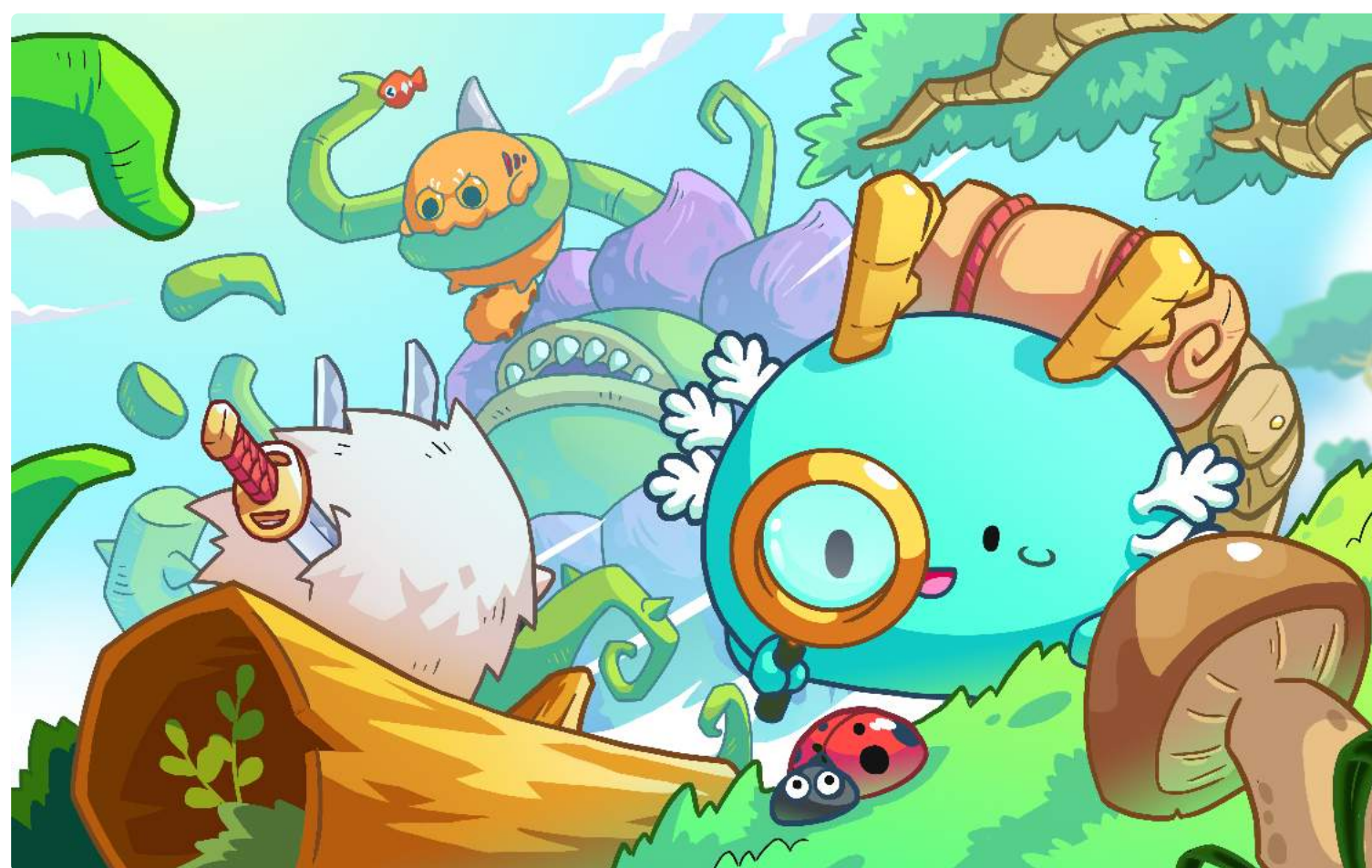
## How Long Does it take for an Axie to become an adult?

Axies take 5 days to reach maturity.

After 5 days, you can morph your egg to an adult Axie and see the Axie's genes.

# Axie Economy & Long-term Sustainability

:



## Axie Principles

- Axie is a new type of game that rewards players for the time and effort they spend both playing the game and growing the ecosystem.
- Axie has a 100% player-owned, real money economy. Rather than selling game items or copies, the developers of the game focus on growing the player to player economy. Marketplace fees go into a Community Treasury whose usage will be guided by AXS holders. The developers monetize through their ownership of AXS tokens. Axies are created by players using in-game resources (SLP & AXS) and sold to new/other players. You can think of Axie as a nation with a real economy. The holders of the AXS token are the government that receives tax revenues. The inventors/builders of the game, Sky Mavis, hold ~20% of all AXS tokens.
- Game resources and items are tokenized, meaning they can be sold to anyone, anywhere on open peer-to-peer markets.

Axie population growth is a major factor within the Axie ecosystem. At any given moment, there exists some ideal inflation rate that allows us to grow to our maximum potential. Too slow and Axie prices are too high for everyday people to join; especially competitive Axies. Too fast and you get unhealthy inflation. AXS / SLP tokens face similar economic forces that need to be managed.

## Economic Sustainability

Long-term the economy will be sustained by adding:

- **Additional valuable utility to Axies.** New and improved experiences such as Land, Mini-games, and Battle updates will be introduced over time. New experiences outside of Battle will also add utility to Axies beyond their effectiveness in fleeting metas. Players will constantly have new goals to reach within the Axie universe. Ultimately, the demand for Axies will come from the intrinsic value they can provide to players in the form of competitive, social, and progression based fun and achievements.
- **Vertical, rather than purely horizontal progression.** Currently in order to progress the main path to progress in Battle is by expanding the size of one's collection. This dynamic is not optimal long term. In the long run there will be upgrades to Axies, Land, and other assets that will require crafting ingredients. Axies themselves may be "released" to obtain these crafting ingredients or unlock upgrades. This creates a long term supply sink to the Axie population. Axie progression is coming in the future; and it promises to create a much stronger bond between trainers and the Axies they choose to upgrade.
- **Accessibility improvements that help unlock sustainable value.** There are various points of friction currently for players to be able to dive into Axie Infinity to compete, have fun, and socialize with the community. Improving onboarding and allowing players to enjoy the game with free Starter Axies for example would enable more players to fall in love with the Axie universe and want to engage in the economy long-term. The more sustained demand for Axies and associated assets, the more healthy the long-term economy will be.

In the beginning to maximize growth, by design the Axie economy will be dependent on new entrants. New players require Axies to get started and it is important to ensure there are enough Axies being bred to make obtaining them accessible. There needs to be careful consideration for exactly when additional Axie sinks are introduced as it could limit growth by causing prices to go too high. Over time, the outlined additions above will be rolled out to transition the economy towards growth and sustainability via demand from existing players, and reduce dependence on new entrants coming into the ecosystem.

## Additional Sources of Capital

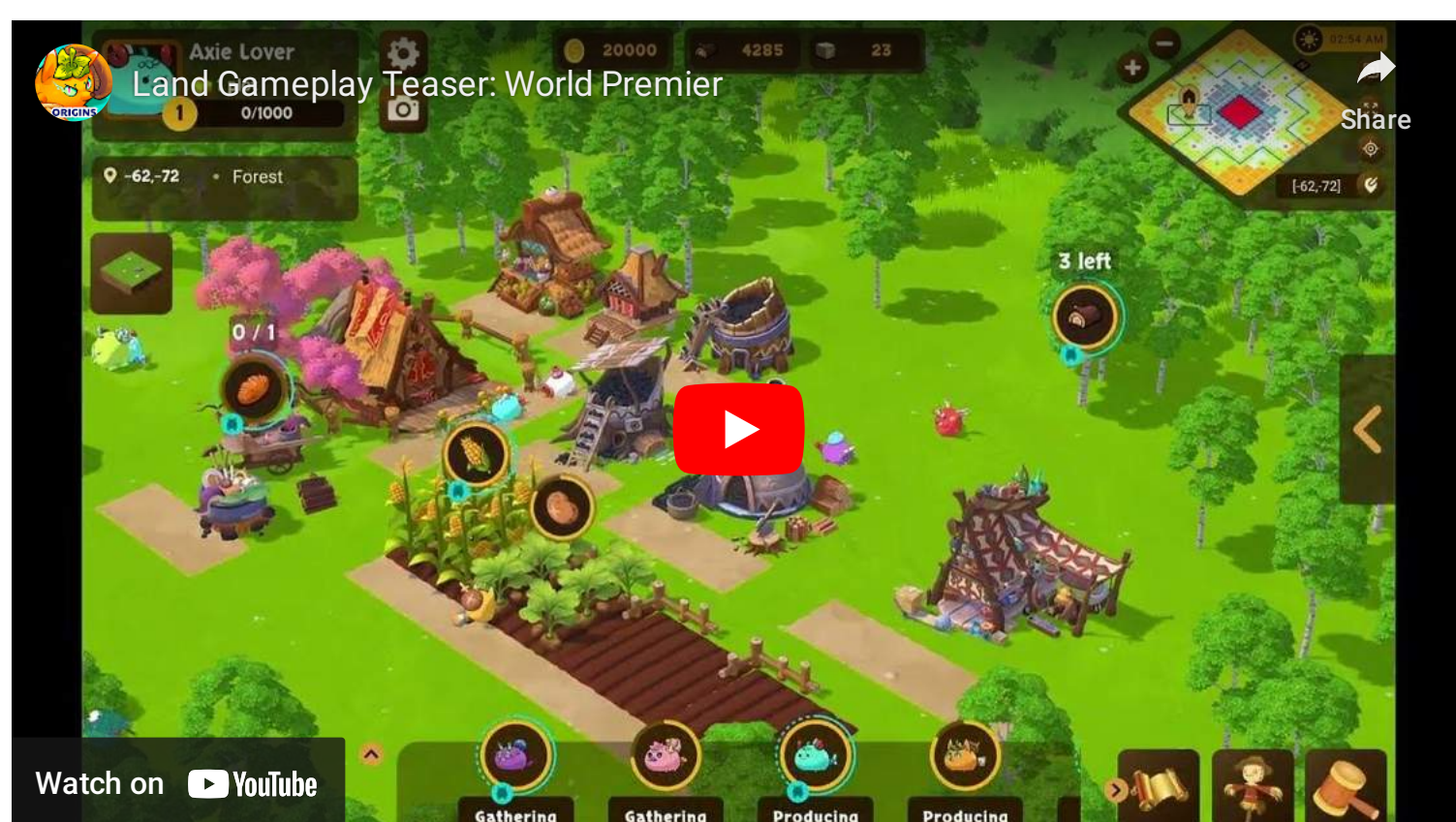
As the game becomes more established and scales, many additional opportunities will present themselves to introduce additional capital into the economy as a bonus on top of the core player-to-player economic activities:

- **Advertising and sponsorships.** Many projects are already eager to distribute rewards and tokens to the Axie economy. So far MakerDAO, AAVE, and Kyber Network have done experimental token drops to Axie players. Axie is already the largest community of people who understand how to use Blockchain technology in the world; there is immense value in advertising to a community like this.
- **Physical / digital merchandise.** This is already a frequent request from dedicated players who would like more physical and/or digital merchandise to be able to express and show-off their attachment to the game. Merchandise could range from exclusive official Axie Art NFTs to T-shirts to Plushies. Profits would go back into the game to be distributed to players.
- **Offline events.** The global Axie community has built extremely strong bonds with each other and meeting other Lunacians in real life is a valuable part of the Axie experience. Profits from major community events would go back into the game to be distributed to players.

Although many Axie players have earned significant returns on their efforts and purchases, many have also played just for the fun and social community. They are excited to devise unique Axie battle strategies to climb the leaderboard or just hangout with new friends in the community. They value these experiences more than any potential earnings. These players make the economy stronger in the long run and Sky Mavis strives to help more players gain this value in the long-term.



# Land

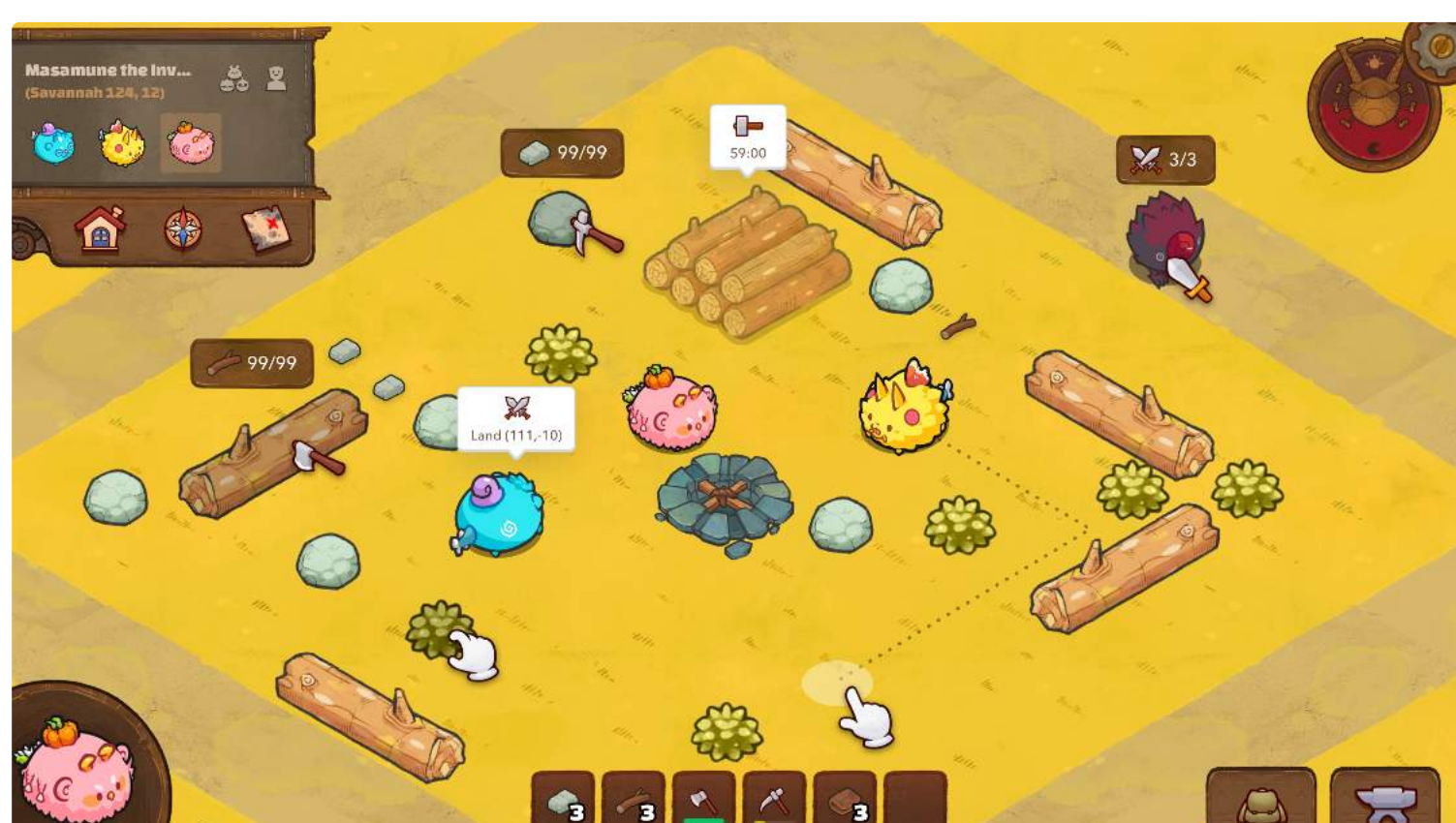


Lunacia, the Axie homeland, is divided into tokenized plots of land which act as homes and bases of operation for their Axies. Plots can be upgraded over time using a variety of resources and crafting ingredients that can be found when playing the game.

In addition, land-owners might find AXS tokens on their land plots, or use the Axies that occupy the land plot to explore resource nodes on the map. When interacting with resources nodes Axies can find AXS and potentially other resources.

## Resource Gathering and Crafting

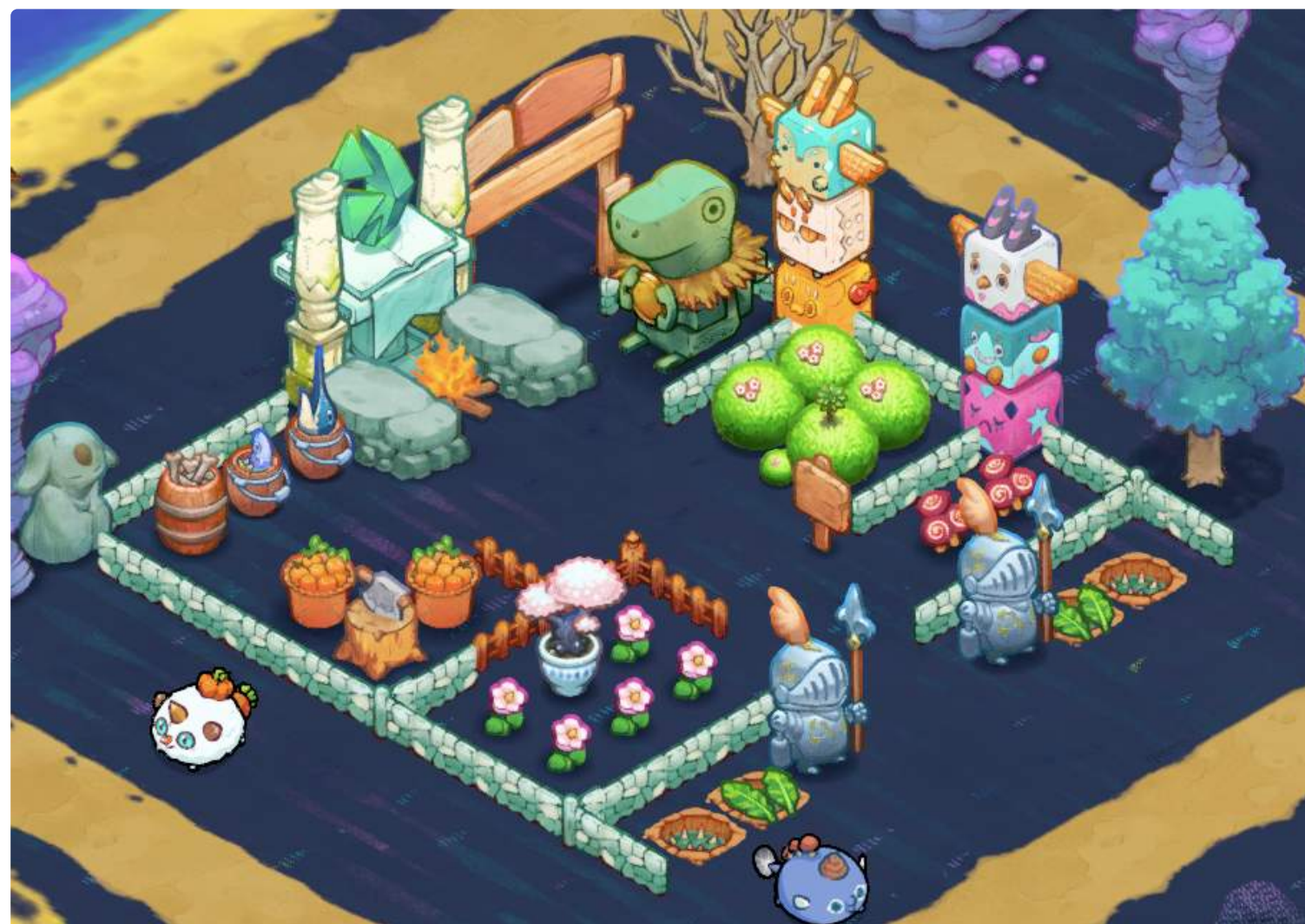
- Resources will spawn in nodes across Lunacia and be used to upgrade both land and Axies.
- Landholders will have first rights to any resources that spawn on their land.



## Real-Time PvE Battles

Monsters called Chimera are terrorizing Lunacia. Players will be able to take on Chimera in real-time battles either alone or in groups. Chimera will drop an assortment of resources, items, and blueprints used to upgrade land and individual Axies.

Additional details about land will be released in time.



A plot owned and designed by cloudwhite

## The World

Lunacia consists of 90,601 plots of Land. These Land plots are represented as Non-Fungible Tokens and can be freely traded by players.

Land Type	Player-owned	Total supply
Savannah	5327	22042
Forest	5359	22025
Arctic	4171	16537
Mystic	2309	8264
Genesis	75	220
Lunas Landing (Center)	0*	3501
Map (water, roads, resource nodes)	0	18012
<b>Total land</b>	<b>17241</b>	<b>90601</b>

Land gameplay is still being actively developed and will be released in phases.

**Phase 1** of this experience will focus more upon simulation and land management (production, resource gathering, building, and trading).

**Phase 2** will build in additional management gameplay elements (such as skill trees, jobs, and social/cooperative activities).

**Phase 3** will focus more on group strategic gameplay (defend, battle, conquer). Throughout the continuous evolution of Lunacia, features will be added, and Axies will have an ever-expanding set of experiences they will encounter. However, between each event and game release phase, major events that affect all of Lunacia will occur, giving players a sense of progression at a world scale.

## Additional Resources

[In December of 2020, we ran a 1 week land demo.](#)

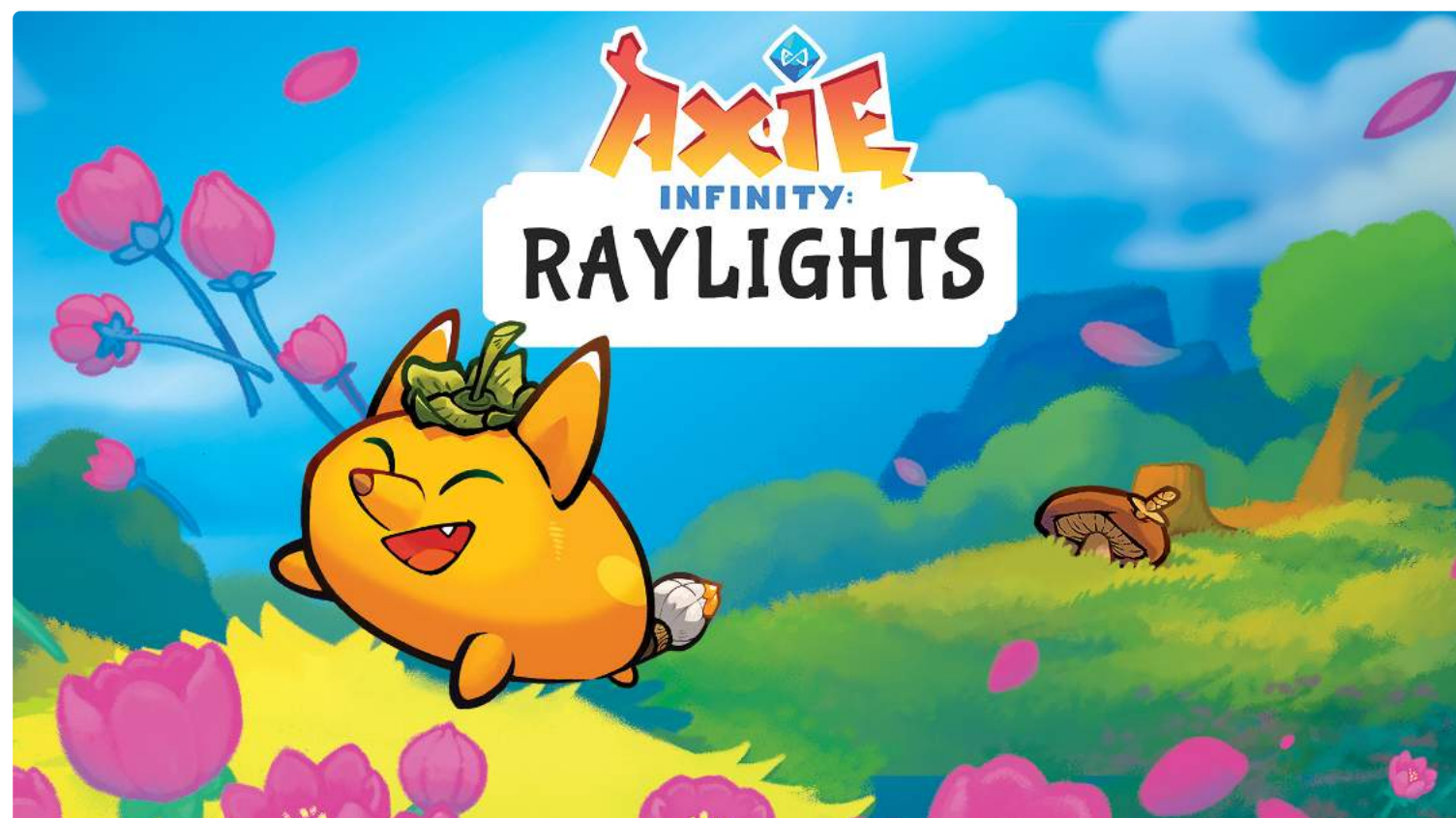
[Original land sale document. Please note that things may change from the original plan as we iterate based on feedback and new ideas.](#)

[Land Dev Journal & Teaser \(12/21\)](#)

[Land Presentation \(4/22\)](#)



# Axie Infinity: Raylights



Axie Infinity: Raylights is our first-ever land mini-game, and is currently accessible to all landowners. Sow minerals, grow plants, and cultivate the most beautiful land plot in Lunacia. Progress will unlock new ingredients, secret recipes, and aesthetics for your land!

Raylights demonstrates how your Axie NFTs can be used as the base layer asset that unlocks new experiences over time. In a time where the purpose and use of Web3 technology is being shaped for future generations, we fully intend on making our products shining maps to the future.

Raylights was officially announced at [AxieCon](#), and was developed in collaboration with Quicksave Interactive - a team of experienced game developers from Finland.

[Start playing now](#) directly from your browser, no download required!

## Gameplay

### Cultivate Your Land

Axie Infinity: Raylights starts at the dawn of axie civilization on Lunacia. As newly formed beings, the Axies in Raylights have to discover the farming and growing techniques needed to build Lunacia into a true homeland.

Raylight's gameplay centers around sowing minerals beneath your land to grow and unlock various recipes and plants! As you progress and experiment with different combinations of mineral inputs, you'll unlock new layers to sow minerals and new recipes and codes! Who will be the first to complete the Archive of Raylights?

We envision Raylights as a peaceful, social experience that allows landholders to cultivate and pursue the perfect aesthetic for their plots.

### Seedling Nursery

Plants are grown by sowing minerals through the seedling nursery. Simply drag and drop the mineral that you want to place on the ground layers to the 'Add mineral' box.

After a combination of minerals has been added, drag an Axie into the "Add Axie" box and press the grow button! You'll see a time-sit back and wait for your plant to appear! The plant will then go into the "Items" tab where you'll be able to drag it onto your plot.

### Minerals

Minerals are used to conduct research through the Seedling Nursery.

Currently, there are 10 types of minerals in the game:

- Edenite
- Aqua
- Beastium
- Serpentine
- Amber
- Aerium
- Mechanium
- Solar
- Obsidian
- Citrine

When you first start in the game, you have access to 3 minerals – Edenite, Aqua and Beastium. To unlock more minerals you will need to clear in-game missions!

Different Mineral Codes unlock different plants although some common plants have multiple recipes, you can think of these plants as weeds. The sequence of the minerals placed matters and different Land rarities have different codes!

A key aspect of Raylights is the pursuit of a perfectly aesthetic plot.

## Upcoming Features

Raylights is still at an early stage and as always, we will build this experience alongside our community.

Over time new features will be added that may include:

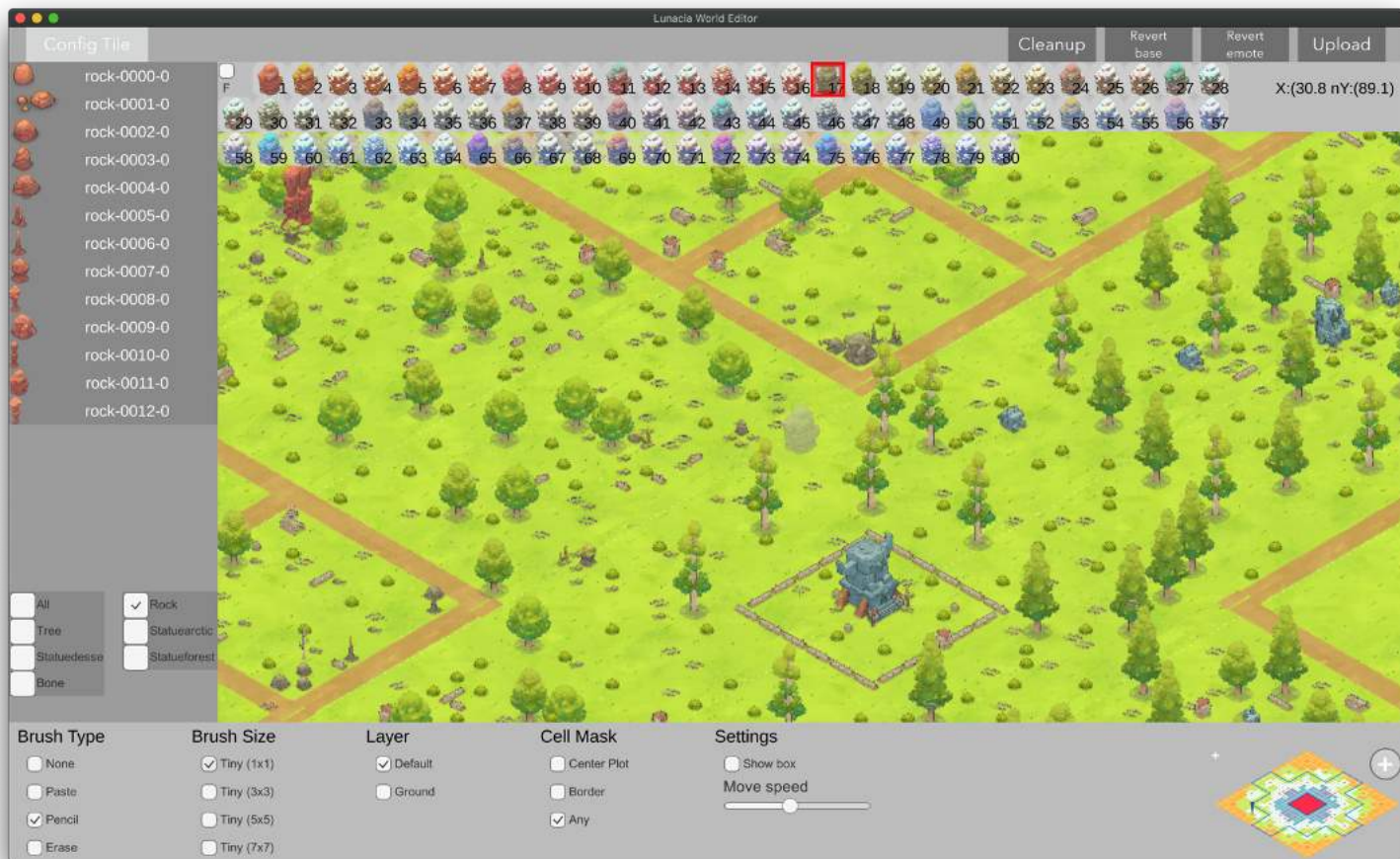
- Allowing non-landowners to access gameplay through landowners\*
- Ability to mint certain crafted objects as NFTs
- Additional game mechanics that allow for crafting to be accelerated
- And more...

Your feedback is very important to the development process of all Axie products and allows us to build alongside each of you. You can help us improve Raylights by filling out this [feedback form](#).



# Lunacia SDK

⋮



The Lunacia SDK will initially be a map editor where players can use Axie Infinity art assets to create games and other experiences. Once a game has been created it is saved as a Non-Fungible Token and can be traded. These NFTs can be placed on land and players will be able to click on them to enter the game inside.

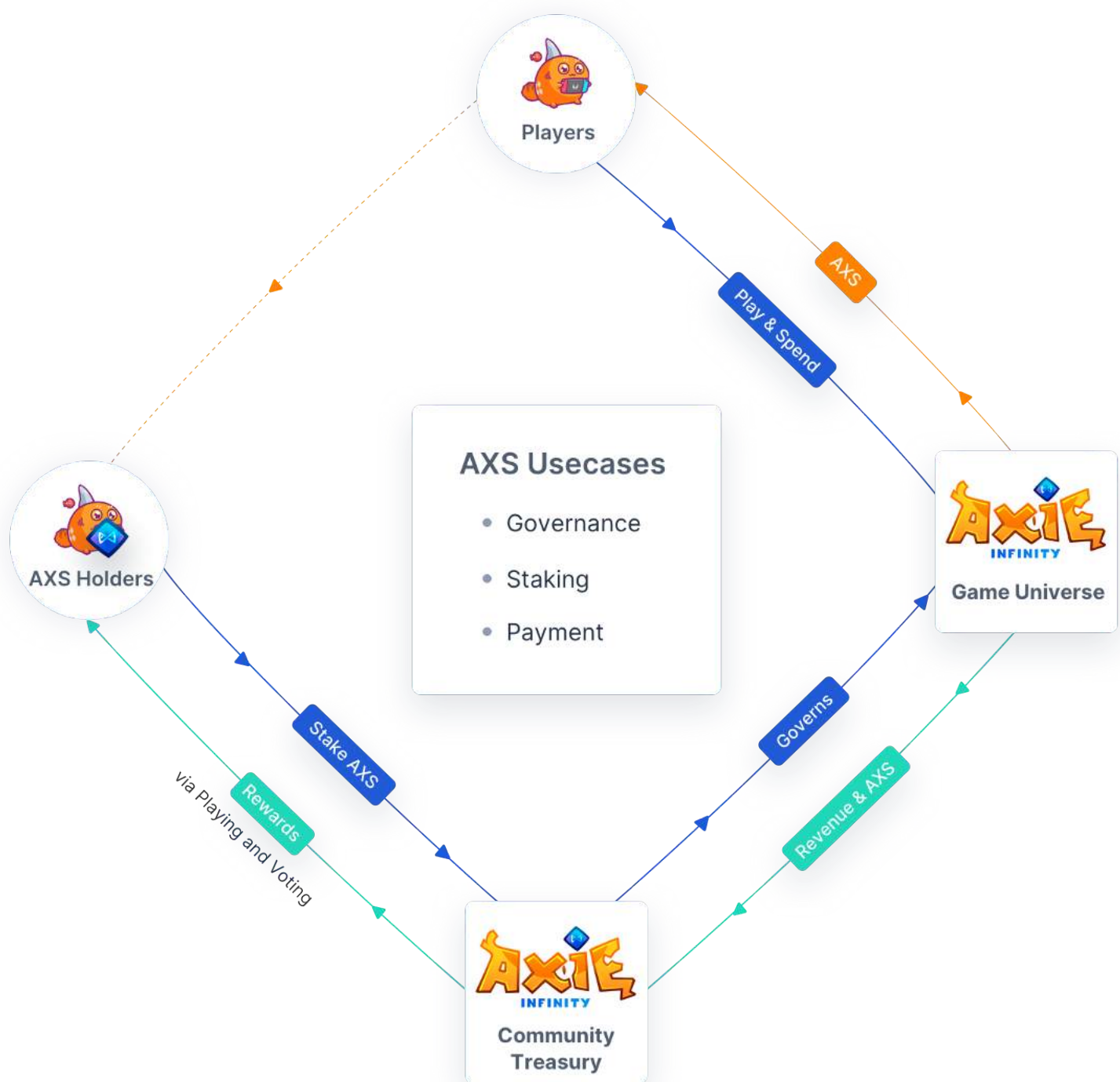
Through this process, we aim to gradually decentralize the game creation aspect of the Axie universe. It will be impossible for one team to built out all the content needed for Lunacia, especially if we reach hundreds of millions of users. User generated content is a scaling strategy for new experiences.



# Axie Infinity Shards - \$AXS



Axie Infinity Shards (AXS) are an ERC-20 governance token for the Axie Universe. AXS holders will be able to claim rewards if they stake their tokens, play the game, and participate in key governance votes. Players will also be able to earn \$AXS when they play various games within the Axie Infinity Universe and through user-generated content initiatives.



Our goal with Axie Infinity Shards is to align the incentives between the players of the game and the developers in novel and exciting ways. The mechanisms described above have two main goals:

- To reward players for interacting with Axie Infinity while simultaneously incentivizing them to hold on to their tokens so they can claim additional rewards.
- To decentralize the ownership and governance of Axie Infinity.

We want Axie to become the first game truly owned and operated by the community that plays it. This opens up limitless possibilities but must be approached carefully. In the past, projects have been abandoned and become stagnant using the term “decentralization” as a ruse. The shift to a true Decentralized organization will occur gradually over time.

In early 2021, the Community Treasury will go live. The Community Treasury will begin to receive revenues generated by Axie Infinity as well as a portion of staking rewards. This treasury will be governed by AXS stakers eventually, once the network has become sufficiently decentralized.

The Treasury receives inflows from:

- 4.25% of all Axie NFT marketplace transactions.
- The AXS portion of the breeding fee.

More streams will be added in the future from cosmetic sales, tournament entry fees, licensing fees, and more as new opportunities present themselves.

In the early days of Axie Infinity, staking issuance will be high—encouraging a high portion of staked AXS without requiring an additional source of funding.

However, as the issuance allocation drops over time, there will need to be another source of funding to encourage a high percentage of staked AXS. This is a potential use for the Community Treasury, which will have a sustainable source of funding from fees related to Axie infinity.

**Account Details**  
ronin:a99cacd1427f493a95b585a5c7989a08c86a616b

---

RON Balance: 0 RON

---

**Token Holdings** Total 2 tokens [View expanded token holdings](#)

ERC20 TOKENS Total Networth: 414,626,945.5056 USD

8,545,411 AXS	15,408.7979 WETH
---------------	------------------

The Community Treasury on The Ronin Block Explorer

The Treasury can be viewed here:

<https://explorer.roninchain.com/address/ronin:a99cacd1427f493a95b585a5c7989a08c86a616b>

The token has been designed in collaboration with Delphi Digital who has put together an [AXS staking guide](#) so future holders can view the potential of AXS at a glance.

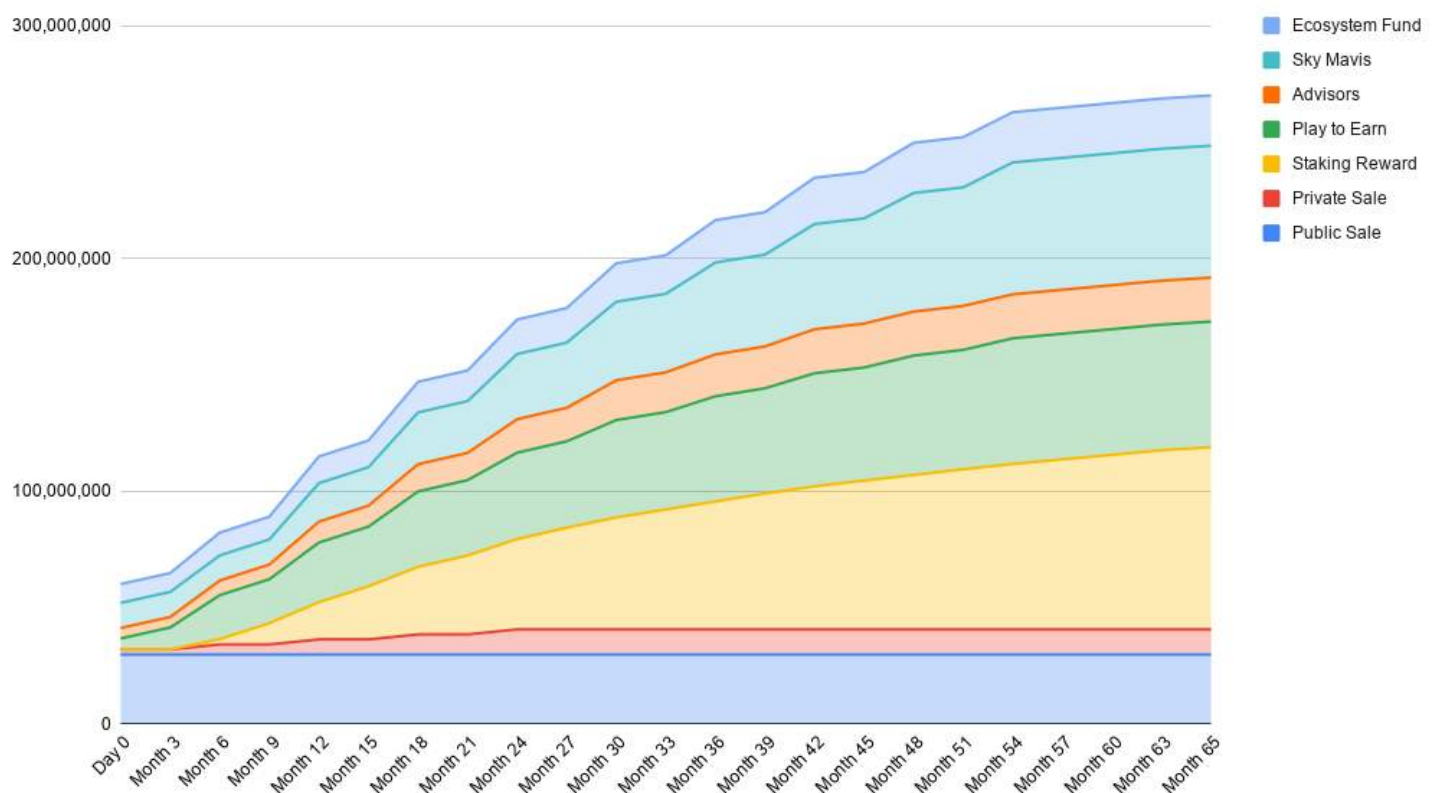


# Allocations and Unlock schedule



AXS will be unlocked in a pre-determined schedule which lasts for 65 months from the public sale. The initial circulating supply is set to 59,985,000 AXS - **22.22%** of the total supply.

Axie Infinity Shards complete release schedule



The above chart illustrates the maximum possible issuance of AXS over the coming years, and the total supply will never exceed **270,000,000**

Token amount	Total Supply	%	
Play and Earn	54,000,000	20%	Locked: issuance s in Q1-Q2 2021
Staking Rewards	78,300,000	29%	Locked: Issuance s in Q1-Q2 2021
Ecosystem Fund	21,600,000	8%	Some unlocked, so locked
Sky Mavis	56,700,000	21%	Some unlocked, so locked
Advisors	18,900,000	7%	some unlocked, so locked
Public Sale	29,700,000	11%	Unlocked
Private Sale	10,800,000	4%	Some unlocked, so locked
<b>Total amount</b>	<b>270,000,000</b>	<b>100%</b>	

The expected issuance of AXS is expected to be slightly lower than the unlock schedule. The Play to Earn and Ecosystem fund allocations will not be issued until the game is ready for a growth phase even if the tokens are unlocked.

	Private Sale	Public Sale	Staking Reward	Play to Earn	Advisors
<b>Total Allocation</b>	<b>10,800,000</b>	<b>29,700,000</b>	<b>78,300,000</b>	<b>54,000,000</b>	<b>18,900,000</b>
<b>% of total supply</b>	4.00%	11.00%	29.00%	20.00%	7.00%
<b>Unlock date (updated for accuracy)</b>	<b>Private Sale</b>	<b>Public Sale</b>	<b>Staking Reward</b>	<b>Gaming Issuance</b>	<b>Advisors</b>
Day 0 (November 4th 2020)	2,160,000	29,700,000		4,725,000	4,500,000
90 days after				4,725,000	
90 days after	2,160,000		2,283,750	9,450,000	1,800,000
90 days after			6,851,250		
90 days after	2,160,000		6,851,250	6,750,000	2,700,000
90 days after			6,851,250		
90 days after (April 28th 2022)	2,160,000		6,198,750	6,750,000	2,700,000
90 days after			4,893,750		
90 days after	2,160,000		4,893,750	4,725,000	2,700,000
90 days after			4,893,750		
90 days after			4,404,375	4,725,000	2,700,000
90 days after			3,425,625		
90 days after			3,425,625	3,375,000	900,000
90 days after			3,425,625		
90 days after			3,099,375	3,375,000	900,000
90 days after			2,446,875		
90 days after			2,446,875	2,700,000	
90 days after			2,446,875		
90 days after			2,283,750	2,700,000	



# Play and Earn



Overview	Detailed unlock schedule	
Token Amount	% of total supply	Unlock schedule
54,000,000	20%	Gradual unlock over 4.5 years

The play and earn issuance represents 20% of the total AXS supply. The goal of the play and earn allocation is to attract a wide range of players to the Axie ecosystem in the hunt for token rewards and to give ownership and stake to the most active community members.

We envision using the play and earn portion of the issuance to reward key behaviors within our ecosystem such as:

- Competing in the arena and winning matches.
- Winning tournaments.
- Interacting with and tending to your land plots.
- Using the Axie Infinity marketplace.
- Breeding Axies.
- Using future Axie products that haven't been announced yet.

The Play and Earn allocation can be seen as a marketing budget for the Axie ecosystem. When certain game modes and products are ready to be promoted, its play to earn allocation could be increased.

These allocations are something that could potentially be decided by governance over time.

The Axie Infinity Shards earned through the Play and Earn allocation will initially be open for trading immediately, but the Sky Mavis team will monitor the situation closely to decide if a lock-up on rewards is needed.

## Why Play and Earn?

A game needs players. By simply playing the game, community members are adding value to the network and should be rewarded. It's simple, but revolutionary. We're looking for missionaries to align incentives with as we change the gaming world forever.

Axie is a living, breathing organism; it's still a toddler. Our revolution is young but spreading quickly – AXS has been designed as a growth hormone to take the toddler to maturity.



# Staking and Staking Rewards



## Staking

Staking is a way for us to reward our community members for having a long term mindset and locking up their AXS tokens. By staking your AXS you'll be able to earn AXS rewards when you lock up your tokens through the staking dashboard. In the future, staking AXS will give you voting rights and a say over the use of the [Community Treasury which now holds over a billion dollars in tokens](#).

Overview	Detailed unlock schedule	
Token Amount	% of total supply	Unlock schedule
78,300,000	29%	Gradual unlock over ~5.5 years

## Incentivizing stakers to add value to Axie Infinity - The Axie Score.

In the future, we may upgrade our staking system to give better rewards to those that have measurably added value to the Axie ecosystem prior to claiming. There is still much research and experimentation to be done in this aspect of governance.

The stakers who are not players or interested in participating in governance could be able to delegate their required "work" to other parties.

This might lead to a future where guilds or corporations with massive amounts of AXS will need to look for talented players who can ensure a high enough Axie score to collect weekly yield.



# Ecosystem Fund



Overview

Detailed unlock schedule

Token Amount	% of total supply	Unlock schedule
21,600,000	8%	Gradual over 4 years

The ecosystem fund will initially be managed by the Sky Mavis core team, and its core purpose is to grow the Axie Infinity community.

The principles for the fund are as follows:

- Clear value added to the broader Axie Infinity community
- KPIs and goals that unlock funds (if applicable)

As time passes the ecosystem fund will be integrated into the DAO and stakers will be able to vote on who should receive funding.



# Sky Mavis



Overview	Detailed unlock schedule	
Token Amount	% of total supply	Unlock schedule
56,700,000	21%	Gradual over 4.5 years

Sky Mavis is the team behind Axie Infinity and should remain incentivized to keep building after a successful token sale. By locking up the majority of the allocated supply the team, community and investors have aligned incentives.

 **Tech in Asia** ✓  
@techinasia

RT @techinasia: Trung Nguyen, co-founder and CEO of 500 Startups-backed Sky Mavis, shares future plans for Axie Infinity. <https://t.co/A31x...>



**Meet the Vietnamese developer behind blockchain game Axie Infinity**  
Trung Nguyen, co-founder and CEO of 500 Startups-backed Sky Mavis, shares future plans for Axie Infinity.  
[techinasia.com](https://techinasia.com)



# Advisors



Overview	Detailed unlock schedule	
Token Amount	% of total supply	Unlock schedule
18,900,000	7%	Gradual over 4 years

## Advisors

- Hashed
  - <https://www.hasheds.com/>
- Delphi Digital
  - <https://www.delphidigital.io/>
- Edward Lee Lee
  - Blackwing Intelligence, Security researcher
  - <https://www.linkedin.com/in/eddie-lee-b41b17/>
- Sébastien Borget
  - The Sandbox, COO and Co-Founder
  - <https://www.linkedin.com/in/borgetsebastien/>
- Binance
  - <https://www.Binance.com>



# Public Sale



Overview

Detailed unlock schedule

Token Amount	% of total supply	Unlock schedule
29,700,000	11%	Instant unlock



# Private Sale



Overview	Detailed unlock schedule	
Token Amount	% of total supply	Unlock schedule
10,800,000	4%	Quarterly over 2 years

Axie Infinity raised \$864,000 in a private sale of AXS to strategic investors in the middle of 2020. These investors purchased AXS at a 20% discount.

20% of the private sale tokens will be unlocked during the AXS public sale. The rest of the private sale tokens will be unlocked quarterly over the next 2 years.



# Community



Axie Infinity is a new type of game - one where users and the core development team are both incentivized to work together to grow the network.

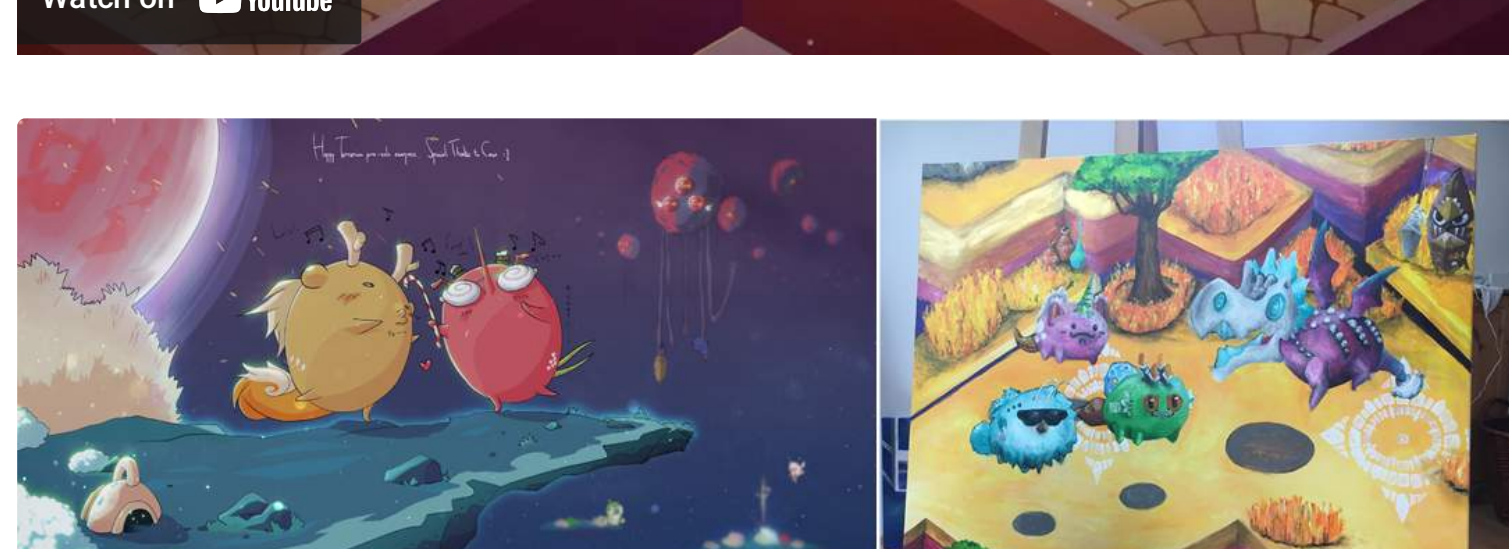
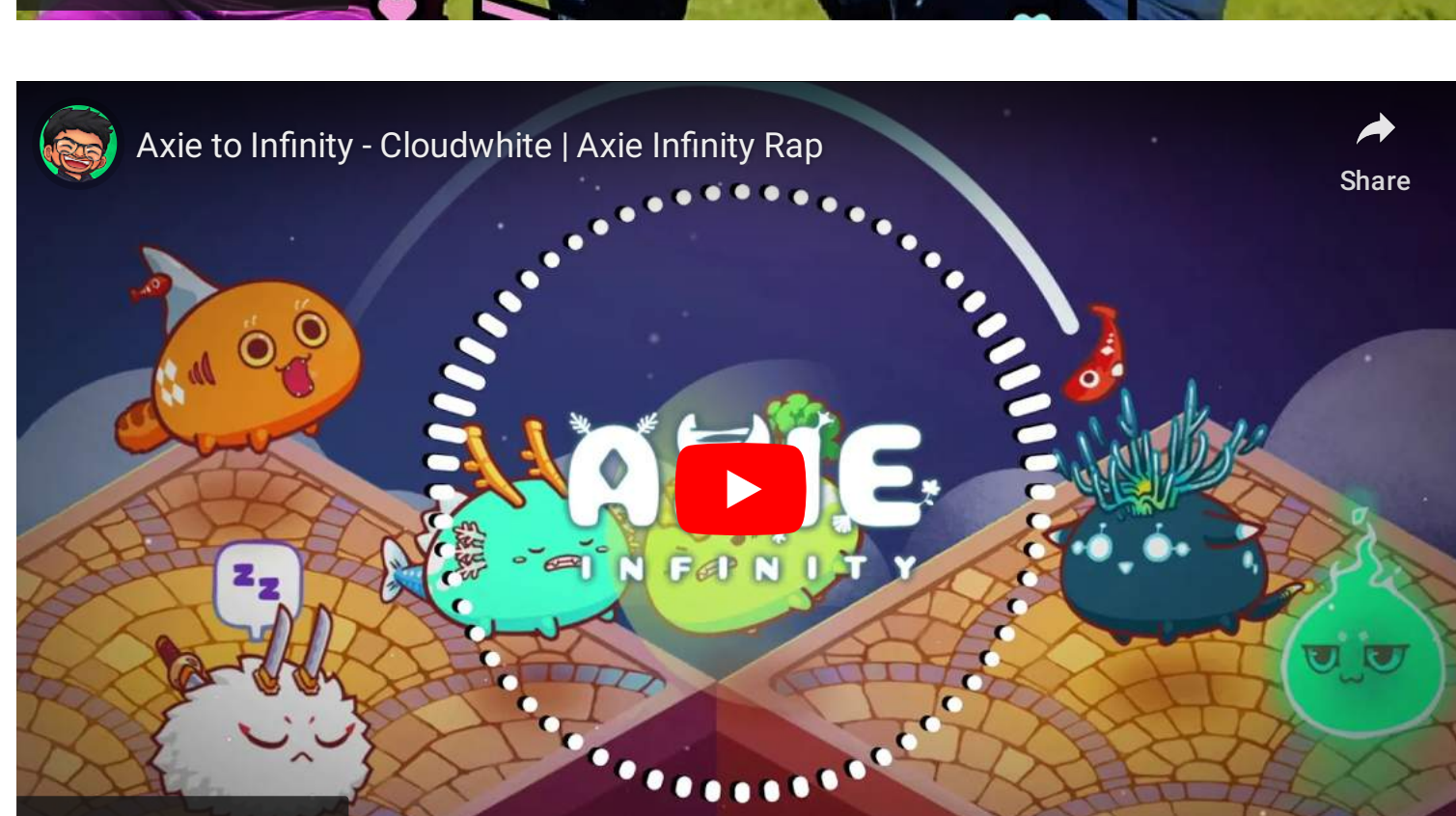
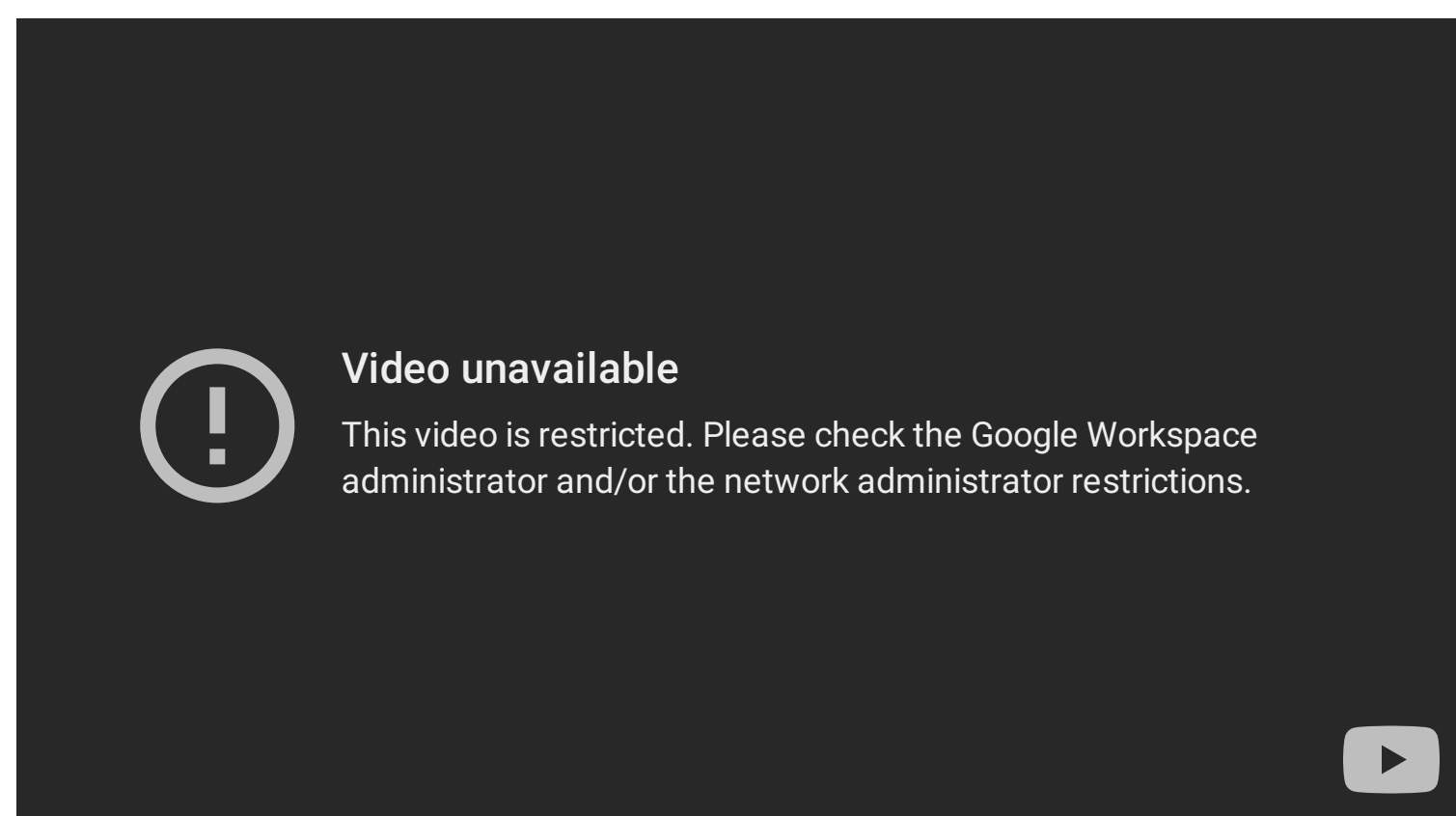
In January, 2022, [the first Axie builders program was released.](#)

Axie is widely recognized as the largest and strongest community in NFT gaming.

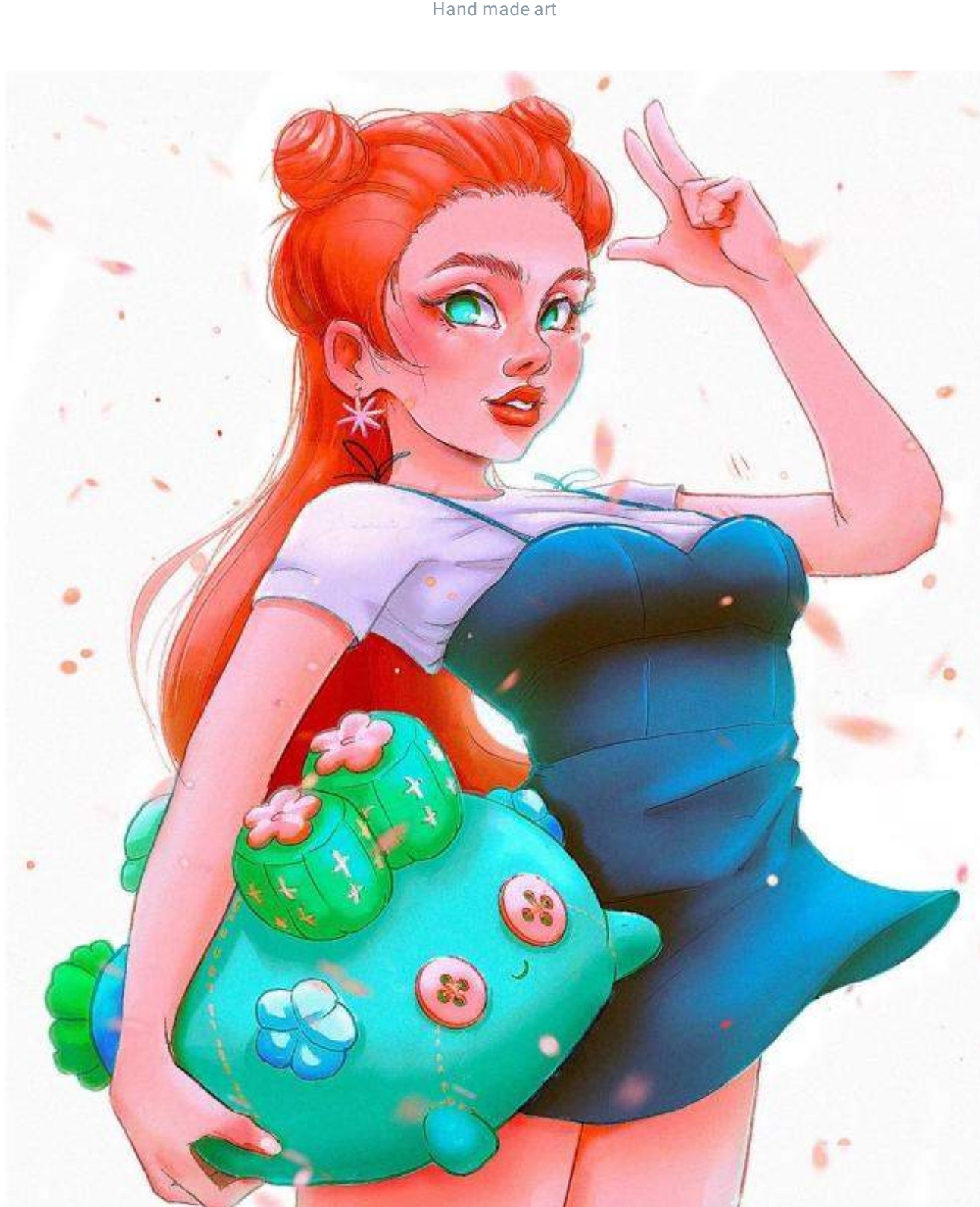
Although the Axie community is relatively small when compared to conventional games, the amount of user-generated content and evangelism is very high.

Here is a guide for Axie content creators: <https://www.notion.so/axie/Axie-Creator-Bible-5feb470e2f42477598787ddf5bfca8e5>

So far Axie users have made some amazing content like:



Hand made art





# Third-party development



We believe the Axie universe can be a powerful medium for attracting developers to blockchain technology and as a potential launchpad for Indie developers.

To date, the Axie community has built a variety of tools and experiences such as:

- tools for appraising Axies.
- tools for enhanced market search.
- Small mini-games
- **Community websites to aggregate useful info like:**



**Axie.Tech**  
Axie.Tech



**Axie World | Home of Axie Infinity Universe!**  
Axie World



**Axie Infinity tools and resources for beginners | AxieZone**  
AxieZone



**Axie Infinity Tools**

**Home » AxieEdge**

AxieEdge

# Decentralized Organization

This page is taken from a post titled "The Axie Community Treasury & Progressive Decentralization"

Four years ago, we set out to build a new type of game— a game dedicated to the idea that players deserve ownership of their in-game assets as well as the universes they spend their precious time in.

As passionate gamers ourselves, we saw room in the world for a new kind of social contract between the participants within a gaming ecosystem. In this model, game players, designers, engineers, and creators work collectively under a set of aligned responsibilities and incentives. We think the world is long overdue for an approach that blurs the historic lines between builders and players: empowering all to create, grow, refine, champion, and benefit from the efforts of the collective. We also believe that these efforts need to be protected from co-optive middlemen (such as publishers, online game stores, etc) that limit access via their distribution channels.

In short, we believe that equitable communities are the foundation of our gaming future, and we are aggressively moving towards demonstrating their potential with Axie Infinity. We believe that this is the path towards creating gaming that's longer lasting, more rewarding, and above all, more fun!

## The Community Treasury

While there are a number of interrelated components to a truly decentralized gaming ecosystem, the focus of this update is on describing the way forward for governing the Axie Community Treasury, one of our foundational pillars. This is a [pool of assets](#) that has grown considerably (over 1B USD in value) due to Axie's incredible community growth over the past year. We designed the Treasury to be under the direct influence of all holders of Axie Infinity Shards (AXS tokens). This means that in the future, we expect holders to govern how these resources are used. For example, they could be used to:

- supplement token staking rewards
- reduce the total long-term supply of AXS (ie, burning AXS).
- replenish resources for current initiatives, such as gaming issuance or the ecosystem fund once they are depleted.
- invest in new activities/initiatives that improve the overall community experience
- resource councils or working groups to carry out strategically important projects

We're very excited to embark on this journey around the use of Treasury funds, but it's increasingly clear that we need to do a much better job of helping both our community and the world around us understand our long term vision for Axie Infinity and the Treasury's role in support of it. It's hard to govern what might be non-intuitive to understand. Additionally, there are many outstanding operational and legal considerations that need to be approached carefully. In short, we believe that unlocking this pool of capital before the community ecosystem is prepared will likely result in inadvertent long term harm to our above stated vision for Axie Infinity.

Therefore, when considering the overall governance of Axie Infinity and the Community Treasury, we think it's important to practice **progressive decentralization**. What does this mean and what does the path towards unlocking the value in the Treasury look like?

## The Progressive Decentralization Continuum

We define progressive decentralization as the deliberate, stepwise process we will undergo to enable active partnership/ownership with an increasingly broad set of community members. In short, we ultimately commit to fully empower any willing participant to contribute and benefit from their efforts within the Axie ecosystem. Hopefully, as you're beginning to notice, we're already experimenting with this in small ways. We need to unlock everyone's collective potential, as meaningful contributions are only possible when those participants have the knowledge, experience, and supportive infrastructure needed to convert good intention into something valuable.

Early within a decentralization process, a few founding members have the primary responsibility for guiding the collective, building the product to collaborate around while also creating a process to enable a broader group to partner and watching for indications of community buy-in / progress. Late within a decentralization process, the collective has the primary responsibility to guide one another as everyone works to advance the community's well defined mission by self organizing within a milieu of easy to understand expectations, conventions, and social norms. While we are passionately committed to this end state, many of the prerequisites needed to properly equip interested contributors don't yet exist.

Why is this important? We want everyone to understand both our goal of full decentralization, and the process we're undertaking to make this happen.

Jesse Waldron of the Variant Fund [laid out a helpful framework to summarize the cascading stages of progressive decentralization](#). A quick review shows that we're still in the early stages, working to establish Axie's core "product-market fit," which refers to a product that consistently grows and addresses needs at scale. One measure of product-market fit is weekly growth of at least 5%. While we have experienced periods of hyper-growth, we have not seen long-term sustainable growth rates of 5% weekly growth to date. Axie Infinity: Classic, released in late 2019, never left Alpha and we recognized the need to build a major overhaul of the battle system: Axie Infinity: Origin. Land gameplay of course, has not been released yet. In the words of Jesse Walden: "During <this early> phase, the only thing that matters is product-market fit. To move fast toward finding it, it's important to avoid design by committee (or community!) A product needs opinionated leadership to test hypotheses and update assumptions quickly."

As hopefully it's apparent, we've established a core team to lead product development and oversee most decisions related to the progress of the game. This allows us to build and iterate quickly towards product-market fit. Hopefully you've also noticed that as time has passed, we've also started to seek direct input from the community around decisions such as gameplay and economic balancing. These attempts at engaging the community in decision-making are deliberately intended to get the community familiar with this growing engagement expectation, to learn how to best get input from large audiences, and to identify community members with exceptional interest in governance. This drum beat will only grow louder in the days to come.

Even if Axie's core product-market fit was clearly established, we still have a large number of technical and social governance coordination challenges that have never been solved before. For example, while we understand that our community is excited to experience on-chain governance, there is still much research around this topic that needs to be conducted. [Vitalik Buterin recently wrote about the challenges faced by the current community governance models in Web 3](#). To quote Vitalik directly:

- **"Small groups of wealthy participants ("whales") are better at successfully executing decisions than large groups of small-holders.** This is because of the tragedy of the commons among small-holders: each small-holder has only an insignificant influence on the outcome, and so they have little incentive to vote. Even if there are rewards for voting, there is little incentive to research and think carefully about what they are voting for.
- **Coin voting governance empowers coin holders and coin holder interests at the expense of other parts of the community:** protocol communities are made up of diverse constituencies that have many different values, visions and goals. Coin voting, however, only gives power to one constituency (coin holders, and especially wealthy ones), and leads to over-valuing the goal of making the coin price go up even if that involves harmful rent extraction.
- **Conflict of interest issues:** giving voting power to one constituency (coin holders), and especially over-empowering wealthy actors in that constituency, risks over-exposure to the conflicts-of-interest within that particular elite (eg. investment funds or holders that *also* hold tokens of other DeFi platforms that interact with the platform in question)."

A quick scan of [Snapshot.io](#) shows just how primitive Web 3 voting infrastructure is. Even for the largest projects on the platform, voter participation is typically limited to hundreds.

When we do enable governance, we want it to be substantive and meaningful. We have not seen this from the current models and believe it will take some time to iterate and experiment towards a model that is airtight and has limits the potential for abuse. Fortunately, we're learning a lot from community dialog, and we're arriving at a collection of techniques that'll help us address some of the concerns. For example, you might have seen us talk collectively about:

- **Implementing an "Axie score" as a modifier to weight voting.** This means allowing one's contributions to the ecosystem in addition to their AXS ownership amount to be taken into account. We are currently considering a non-transferable badge system that could allow us to build a robust system around this in collaboration with the community.
- **The creation of player-driven councils** that ensure a variety of opinions and recommendations from specialists are used to inform the creation and structure of key proposals.
- **Quadratic voting:** quadratic voting is a system where voters have limited voting power and must spend this power wisely. For example, staking AXS could cause non-transferable voting power to accrue to the staker over time and that voting power would be burned when used to effect the outcome on a proposal. This creates a market dynamic around voting.

## Updating Governance Timelines

As it's likely clear from the above, we have a lot of work to do. In retrospect, placing concrete dates on how we'd proceed with progressively decentralizing might have been misguided, given the evolving lessons we and the space around us are actively trying to learn. We want to move as fast as we can in this direction while protecting our vision, and we want your partnership in accelerating our pace. Perhaps as a framework to measure our progress, we'd like to share a set of phases and criteria for advancing towards full decentralization. Our hope is that it allows us to ground our community discussion, and serves as a call to action:

### Phase 1: Product-Market Fit

- The Sky Mavis team manages product development and makes key product decisions with feedback and input from the community.
- AXS tokens are emitted through AXS staking according to the staking schedule.
- AXS tokens are strategically emitted through the gameplay reward allocation.
- Sky Mavis manages the ecosystem fund. It's used to fund early experiments around grant programs.
- Sky Mavis will begin the process of council formation around key topics such as gameplay balancing, economic balancing, and cultural development.
- The Community Treasury sits dormant.
- Governance experimentation with lightweight forums and minor proposals with an emphasis on product feedback (ie, trial voting, non-binding referendums, etc).
- Gauge interest in various voting systems
- Sky Mavis to research and explore options around commercial rights for Axies.

### Criteria for Moving to Phase 2

- An Axie game that has over 10 million DAU and average weekly growth rates of 5% for 6 consecutive months or 8 months out of 12 over a 12 month period.
- Construction of a functional, easy-to-understand governance portal and process that avoids the pitfalls outlined earlier in this article.
- At least 3 outside teams are building games with over 100,000 DAU on top of Axie Infinity outside of the core Sky Mavis team.

If these requirements are not met by the end of 2023, Sky Mavis will lead the formation of a steering committee or similar vehicle to discuss a path forward. Alternatives include hosting a virtual/physical governance summit and enlisting a 3rd party think-tank. We are also open to exploring any combination of these alternatives that gets us through this phase as quickly as possible.

### Phase 2: Growth Stage

- Certain key product decisions are made through a formal on-chain governance process. The parameters and rules of this voting process are iterated on and improved with experience.
- AXS tokens are emitted through AXS staking according to the staking schedule.
- AXS token emissions through gameplay scale as product market fit allows for higher reward issuance without pressure on the economy. This increases AXS ownership among the playerbase and decentralizes ownership of the network.
- Sky Mavis manages the ecosystem fund with input and soft voting from the community. The fund is used for investments and grants that build vital goods, products, and educational tools for the Axie ecosystem.
- Sky Mavis brings forward proposals around use of the Community Treasury.

### Criteria For Moving To Phase 3

These criteria will be determined with community input during phase 2.

### Phase 3: Community Governance & Ownership

- The on-chain governance process around product adjustments and Community Treasury management begins to settle and become dynamic only through a formal amendment process.
- AXS token emissions through gameplay scale as product market fit allows for higher reward issuance without pressure on the economy. Eventually, the gaming issuance will run out of tokens and need to be replenished through a combination of distributions from the Treasury and sponsors.
- The ecosystem fund is likely fully deployed at this stage.
- During this stage the gaming issuance allocation becomes fully distributed to the community.
- Proposals related to the Community Treasury are opened up to the Community.
- Possible drafting of an Axie constitution.

## Conclusion

Four years ago, we set out to build a new type of game. A game that would help ensure that the future of the internet is open and owned by its users. To date, we've gotten closer to this goal. We've accumulated a number of victories and introduced Axie and Web3 to millions. We've also encountered complicated hurdles and roadblocks. We hope that this article has helped align the community around our thoughts on decentralization and the path forward for this community and our collective treasury.

Disclaimer: the framework above reflects our current thinking around the decentralization phases for Axie. *Axie Infinity is a bleeding-edge game that incorporates unfinished, risky, and highly experimental technology. Development priorities, roadmap, and features are subject to radical overhaul based on research, traction, feedback from the community, and a myriad of other factors.*



# Key Metrics



Dashboards created for Axie Infinity from 3rd party websites:



**Axie Infinity | DappRadar**

DappRadar



**Nansen**

# Future revenue streams



Axie Infinity will be run using a Game-as-a-Service model where new features will be introduced over time. Axie can potentially earn revenue from selling Axies, Land, cosmetics, and in-game consumables. Additionally, there will be fees when players want to level up their game characters, play in tournaments, and craft new assets.

**All the fees and revenue generated by Axie Infinity will be placed in the Community Treasury which is governed by the AXS holders.**

For now, these are the primary fees in the Axie universe:

- A breeding fee, paid in AXS, for breeding Axies.
- A 4.25% Axie Marketplace fee taken from successful sales of Axie NFT assets: Axies, land, and land items.



# Technology



Our engineering team is made up of top technical talent from Vietnam. Many of our team members met through competitive coding competitions and hackathons such as the International Collegiate Programming Contest (ICPC). Our team members are thought leaders in Vietnam's Rust community and have presented their findings to the broader community in various tech talks.



**Rust Vietnam**  
YouTube

## Decentralization and Blockchain

We initially chose Ethereum back in 2018 due to the number of developers building on the platform, and the ability to recruit initial community members. As time passed it became clear that building a blockchain game solely on Ethereum would not be feasible from a scalability standpoint.

We have learned that while our users care about blockchain technology they are focused on the benefits it can bring, rather than decentralizing too many features. As long as we provide a tamper-evident distributed ledger that ensures scarcity and allows our players to own and trade their assets it will be enough, for now.

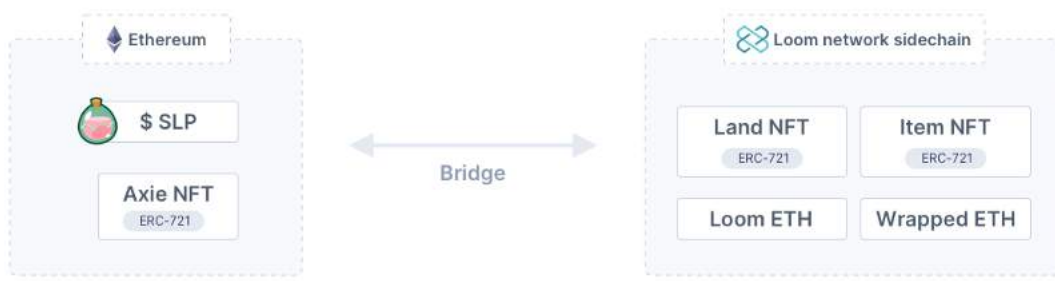
The mechanics of Play to Earn do not require a fully decentralized public blockchain. We believe that part of the ethos of web 3 is the idea of users being rewarded for the value that they bring to applications and this is what we choose to focus on with Axie.

# Ronin Ethereum Sidechain

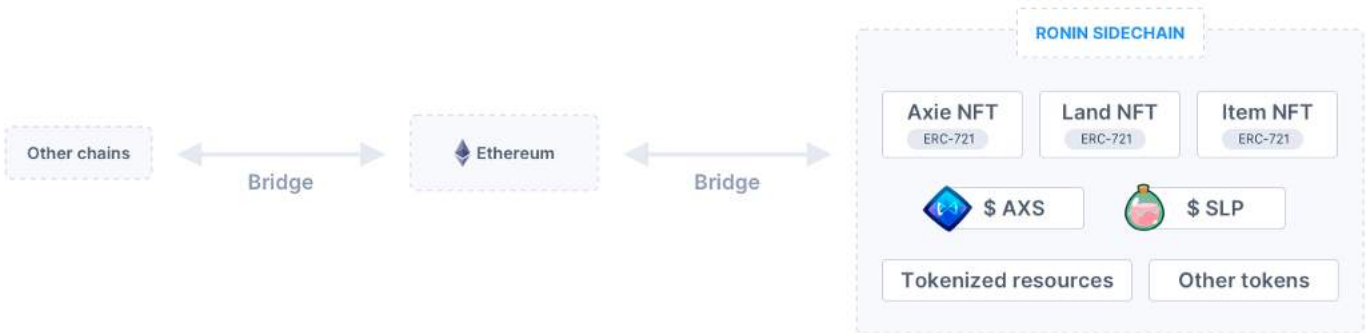


Sky Mavis is currently creating Ronin – an Ethereum-linked sidechain made specifically for Axie Infinity. A Ronin was a samurai without a master in feudal Japan and Ronin represents our desire to take the destiny of our product into our own hands.

## CURRENT BLOCKCHAIN STACK



## FUTURE BLOCKCHAIN STACK



## Security & Consensus

To help secure Ronin, we have recruited an all-star cast of partners from the traditional gaming, crypto, and nonfungible token space to serve as validators of our network.

### SIDECHAIN TO ETHEREUM IN TESTNET

The screenshot shows the AxieChain testnet interface. The top part displays a dashboard with metrics like 'Latest Block #52257', 'Gas Price 0.00', 'Last Block Isago', 'Avg Block Time 300s', and 'Avg Withdrawal Rate 0.3Hs'. Below this are sections for 'Latest Block', 'Latest Transactions', and 'Activities'. The 'Activities' section shows a 'Withdraw 0.23 ETH' transaction with a confirmation status. At the bottom, there is a 'ATTENTION!' section with a warning message.

## The Future of Ronin

Here's a message directly from Trung, CEO of Sky Mavis:

*"We are very excited about the possibilities Ronin brings. Though it's still in an early state, Ronin will continuously evolve over the years to serve the spirit and ethos of blockchain gaming. On the technical side, we are also looking into various solutions to further strengthen and scale Ronin. zKSyncs, for example, is looking promising, but it could take time until it's production-ready – particularly for NFTs and games."*

An extended AMA with Trung about Ronin can be found [here](#)



# Smart contracts and GitHub Repo



The \$AXS and \$SLP ERC-20 contract has been audited by Quantstamp on April 25th 2021:

 **Axie Infinity Token - Final Report.pdf** 320KB  
PDF

Axie Infinity token - Final report

## Our most used smart contracts

Notes	
<a href="#">AXIE ERC721</a>	\$AXIE contract - was deployed before ERC721 was standardized
<a href="#">Claim Reward</a>	Our players interact with this contract to claim tokenized rewards
<a href="#">Origin Axie sale #1</a>	Was used for the initial Origin Axie presale in 2018
<a href="#">Origin Axie sale #2</a>	Was used for the initial Origin Axie presale in 2018
<a href="#">MEO 1 Axie sale</a>	Was used for MEO Season 1 Axie sale in early 2018
<a href="#">Land sale #1</a>	Was used for Phase 1 of the Land sale early 2019
<a href="#">Land sale #2</a>	Was used for Phase 1 of the Land sale early 2019
<a href="#">Land sale #3</a>	Was used for Phase 1 of the Land sale early 2019
<a href="#">Marketplace contract</a>	Volume on our Ethereum marketplace
<a href="#">Loom marketplace contract</a>	Volume on our Loom Network marketplace
<a href="#">Breeding contract #1</a>	Was used to breed Axies until late 2019
<a href="#">Breeding contract #2</a>	Currently being used to breed Axies
<a href="#">Small Love Potion</a>	Small Love Potion
Github	Notes
<a href="https://github.com/axieinfinity">https://github.com/axieinfinity</a>	Axie Infinity main repo
<a href="https://github.com/skymavis">https://github.com/skymavis</a>	Sky Mavis main repo

# Roadmap and completed milestones



## Roadmap

Please note that there are many things that could change the ordering of these priorities including massive traction, breakthrough research, and feedback from the community. *In addition, it should be understood that these are projections that we are making to the best of our ability but are subject to many potential disruptions. Axie is a bleeding-edge game that's incorporating unfinished, risky, and highly experimental technology.*

- Q1 2020: Land and Items migrated to Ronin ✓
- Q2 2021: Axies migrated to Ronin ✓
- Q2 2021: Axie: Origin Alpha ✓
- Q3 2021: \$AXS staking ✓
- 2022: Land Gameplay Community Alpha
- 2022: Land gameplay
- 2022: Lunacia SDK Alpha (N/A, converted to builder's program cookbook for now)
- 2023: Axie Part Upgrades

**The endgame is to create a single application which players can use to interact with the entire Axie Infinity universe:**

- Social network
- Marketplace
- Progression of Axies (Leveling, achievements)
- Breeding Game
- PvP with ladder and tournaments
- PvE / Adventure mode
- Land Gameplay
  - Players expand their kingdom, harvest resources, attack Chimeras and other players.
- Lunacia SDK - Allowing developers and creators to make games using existing Axie Infinity assets and hosting them on land.

## Completed milestones

- December 2017: Concept and Idea - Development begins
- February 2018: Origin Axie Presale begins - 900 ETH raised
- March 2018: In-House Axie-NFT Marketplace released
- May 2018: Breeding game released
- October 2018: Idle battle game released
- January 2019: Land Sale begins - 3200 ETH raised
- May 2019: In-House Land/item-NFT marketplace on ETH Layer 2 (Loom Network) released
- December 2019: Unified Land and Axie marketplace launched
- December 2019: Community alpha (card battle game) released
- May 2020: Mavis Hub released
- May 2020: All land in Quarter 1 sold out - 4600+ ETH raised
- June 2020: Axie Infinity participates in Ubisoft Entrepreneurs Lab
- July 2020: Ronin Sidechain in test net
- August 2020: Land gameplay internal alpha
- February 2021: Ronin Mainnet Launch
- April 2021: Axies migrated to Ronin
- May 2021: Fiat on-ramp added to Ronin
- September 2021: AXS staking launched
- November 2021: Katana Decentralized exchange launched
- January 2022: RON token launched
- January 2022: Axie Releasing (Lunacian Express) Lunar New Year Event
- February 2022: Axie Builder's Program launched
- April 2022: Axie Infinity: Origins Alpha launched
- June 2022: Axie Creator Program launched
- June 2022: Lunacian Codes launched
- July 2022: Lunacian Summer Breeding Event
- August 2022: NFT Runes & Charms launched on app.axie
- September 2022: First AxieCon held in Barcelona, Spain
- October 2022: Axie Infinity: Raylights launched
- December 2022: Axie Contributor Initiative Kickoff
- December 2022: First Builder's Program Game Axie DoLL added to App.axie
- December 2022: Axie Accessories released
- December 2022: Axie Infinity: Origins approved on Google Play
- December 2022: Axie Infinity Land Alpha released



# Team



Axie Infinity is being developed by [Sky Mavis](#) which is a technology-focused game studio founded in early 2018.

The team consists of 40 full-time employees and has its headquarters in Ho Chi Minh City, Vietnam. The founding team consists of the following individuals:

## Trung Thanh Nguyen - CEO

Trung is involved in all key decisions from product to marketing and leads the company in Vietnam.

At the age of 19, Trung co-founded and was CTO of Lozi.vn, an early Vietnamese e-commerce startup which has raised around 10 M in funding and is still in operations as of now. He left Lozi once it became a stable business and the team's focus shifted from building to business/operations. Trung also had stints at Trusting Social (25 M recent funding round led by Sequoia) and Anduin Transactions (a Joe Lonsdale company) before founding Axie Infinity

Trung represented Vietnam in the ACM-ICPC World Final 2014 held in Yekaterinburg, Russia.

[LinkedIn](#) / [GitHub](#) / [Twitter](#) / Coindesk Most Influential 2021 Profile

## Aleksander Leonard Larsen - COO

Aleksander is responsible for all things business-related in Axie Infinity. He also serves on the board of directors in the Blockchain Game Alliance and holds the secretary position.

He has worked in the Asia Pacific region since early 2018 and has a vast network of Blockchain industry and gaming connections, particularly in Vietnam, Hong Kong, South Korea, and Japan.

Before Axie Infinity he worked as a manager in the Norwegian state and spent his free time as a content creator and competitive gamer. He has been ranked as one of the top 200 players in Europe in DotA 2 and has represented the Norwegian national team in Warcraft 3 and DotA.

[LinkedIn](#) / [Twitter](#)

## Tu Doan - Art Director and Game Designer

Tu runs the art team in Vietnam and designed the original Axies. He is responsible for the art direction and many game design concepts.

He co-founded and formerly worked as the Head of Design at Lozi.vn.

[LinkedIn](#)

## Andy Ho - CTO

Andy leads our engineering team and is responsible for our technical strategy and engineering operations.

He previously worked as a software engineer at Anduin Transactions and interned at Google and Paypal.

Andy attended the International Olympiad in Informatics (IOI) 2010 held in Waterloo, Canada. He graduated from Nanyang Technological University, Singapore and also represented Singapore in the ACM-ICPC World Final 2015 held in Marrakech, Morocco.

[LinkedIn](#) / [GitHub](#)

## Jeffrey Zirlin - Growth Lead

Jeff AKA "Jihaz" is responsible for growth and community development. He also spearheads token design and works closely with the product team.

Jeff grew up collecting fossils and insects; he uses this experience when thinking about the collector side of NFTS. Jeff was a member of a top-ranked USA Horde guild in vanilla World of Warcraft; he spent much of his childhood/adolescence in raids. Academically, he studied military and economic history at Yale where he wrote his thesis on the ideological origins of Alexander Hamilton's debt restructuring plan.

[LinkedIn](#) / [Twitter](#) / [Thesis](#)

# Partners

:

