RESEARCH PAPER

Project SEED
By
House of Chimera

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INTRODUCTION

What is Project SEED?

Ecosystem Overview

Project SEED is one of the first blockchain gaming ecosystems with Decentralized finance (DeFi) integrations built on the Solana Blockchain. Their first game is an Action Role-Playing Game (ARPG), Outland Odyssey, where players can explore and progress through a wondrous metaverse with their favorite companions, ZEDS.

Outland Odyssey will revolve around ZEDS, companions that players can tame comparable to Pokémon™. In the metaverse of Outland Odyssey, there are dozens of variations of ZEDS with different characteristics. ZEDS play a significant role in the game's progression, further highlighted in chapter "Gameplay".

The Project SEED ecosystem utilizes various DeFi solutions to handle trading and ownership by using a native decentralized exchange (DEX) and non-fungible tokens (NFTs). The implications of these DeFi integrations will be further highlighted in the chapter "Decentralized finance (DeFi) Integrations".

The ecosystem utilizes the native token, SHILL, as a utility token. The token will be used for governance, staking, and trading. To add to that, the SHILL token will be interoperable by a mint-burn mechanism to control the circulating supply of the token. The SHILL token and its features will be highlighted in the chapter "SHILL token."

The in-game currency of Outland Odyssey will be O2, a currency that is obtainable by playing the game (i.e., play-to-earn) and is used solely for in-game purposes. The O2 token and its features will be highlighted in the chapter "O2 token."

General Overview

Project Name:	Project SEED
Ticker:	SHILL
Circulating supply:	27,250,000 (excl. LP)
Max Supply:	1,000,000,000

Financial Statistics

Public price:	$0.0250
Private sale price:	$0.0175
Seed sale price:	$0.0075

Core elements of Outland Odyssey

Outland Odyssey is a play-to-earn (P2E) game, enabling players to earn SHILL and O2 tokens by playing the game. The user can earn O2 tokens by completing dungeons or quests and SHILL tokens by selling NFTs (e.g., weapons, armor, buildings, ZEDs) on the NFT marketplace, PvP, and seasonal leaderboards. The game is a multiplayer instanced game which means that there are multiplayer areas (e.g., cities, dungeons) and solo/co-op areas (e.g., leveling zones).

The game is heavily influenced by modern games such as Pokémon™ and Minecraft™ while remaining unique by adding an RPG component to their project. The RPG aspect is visible throughout the whole game and is used as one of the progression and trading systems.

The story of Outland Odyssey revolves around Mornuin, the Great Keeper of Existence. The player is tasked to overcome challenges and uncover the truth about the Keepers of Existence to save the world from extinction. Armed with powerful weaponry, armor, along with magnificent ZEDs, the player is primed to pursue the truth.

Progression

A Role-playing game (RPG) is a category of game in which progression is vital. In general, an RPG has multiple systems whereby the players can progress. These can consist of gear progression, character progression, or general game progression systems by which the player can progress through the game.

Project SEED will have several of these systems for its players to interact with. The game will feature gear-, character- and overall story-driven progression systems and a mechanism for leveling ZEDS. These systems will be discussed in the chapters "Character progression" and "Game progression".

Character progression

Outland Odyssey currently has several mechanics to customize their characters by choosing various skins and modifying their armor and weaponry. In later stages of development, a customization tab will be added to the game to give players more freedom to change their appearance.

There are currently three classes (i.e., jobs) in the game with unique skills and characteristics. The three classes are:

- **Mercenary** – The Mercenary is a melee-based class that focuses on close combat with a high level of defense.

- **Hunter** – The Hunter is a skilled and fast-paced character that revolves around their ability to long-ranged attacks.

- **Alchemist** – The Alchemist is a versatile caster class with high damage output.

Outland Odyssey allows players to customize their characters by a subclass mechanism further. There are six subclasses in the game with their unique crafting mechanics and services. The following subclasses are available:

- **Blacksmith** – revolves around the art of forging items out of metals, ores, and other components to craft powerful weapons and unbreakable armors.

- **Tailor** – Revolves around cut and weave pieces of cloth into clothes and accessories.

- **Cook** – By cooking exceptional food and dishes, players can get buffs to support them through their journey

- **Carpenter** – The art of woodworking that revolves around crafting furniture and tools

- **Alchemist** – By brewing and distilling recipes, an Alchemist can craft medicine and other items to support your journey.

- **Breeder** - The breeder is a unique subclass that allows players to breed ZEDS that can be eventually sold or rented to other players.

Players can obtain crafting components by discovering the metaverse, performing quests, and defeating ZEDs. The player can level up through an experience system. The collection of experience can be done through quests, dungeons, and defeating ZEDs.

Game progression

The progression mechanism of the game mainly revolves around ZEDs and improving gear and weapons. Players can collect crafting components by defeating ZEDs and use these for armor and weapon crafting. The strength of gear and weapons will be quantified in stars, where one-star weapons are the worst and five-star weapons are the best. Furthermore, every weapon has a level that can be increased with other weapons and experience, increasing the overall stats of the weapon. A weapon's stats are bound to an RNG aspect, whose rarity significantly influences the stats' quality. The gear of the player will be stored into the blockchain as an NFT and is therefore tradeable. The higher-tier crafting weapons and armor do require rare crafting components, and the level of a ZED does impact the drop rate of rare crafting components.

Players can have in-game assets such as buildings so that players can start their stores. In these buildings players can sell their undesired items (e.g., armor and weapons) and trade them to other players for SHILL tokens or other items. This allows the game to have a vibrant economy, where players can socially interact and trade with each other within their stores. The dependency of players on each other pushes the player to interact with other players to progress faster.

Figure 1 ZED Leveling mechanism

The game will allow players to tame hundreds of ZEDs to play with as their companions. ZEDs can be either tamed or bred by a Breeder. The player can level up the ZEDs until the Mythical zed tier. As shown in figure 1, the tamed ZED goes from tier 1 to mythical zed, and in case it is a bred ZED, it starts at the 'Egg' tier. The game utilizes a burning mechanism, where every time a ZEDs evolves to a new tier, the old lower-tier NFT will get burned. This way the game does not get flooded by lower-tier ZEDs, preventing a shift in the supply-demand curve.

Core Material system

Core materials in Outland Odyssey are materials that act as base materials for crafting. These are relatively common items that are obtained through defeating ZEDs. The core materials have different tiers and can be combined into better-tier core materials. So ten trash tier materials can be combined into a common tier material, while five common tier items can be combined into a prime-tier material, as shown in figure 2.

The core material mechanism allows players to utilize low-level core materials into better and more valuable materials for higher-tier recipes. Therefore, the economy of the game remains healthy, and it prevents low-tier item inflation.

Figure 2 Core Material combine mechanism

Common Tier	→ x10	Uncommon Tier	→ x5	Prime Tier

Gameplay

Outland Odyssey focuses on Player Vs. Player (PvP) and Player Vs. Environment (PvE) gameplay by enhancing the social experience. The game utilizes procedurally generated maps with a mix of hand-designed aspects. The player will be spawned at a campsite, which functions as the starting point of the procedurally generated map. The variety of gameplay is essential for games, considering it significantly improves the overall replayability. This will be further highlighted in the chapter "Market opportunity."

The likelihood of players spending real money on a game is significantly improved when game elements enhance social presence, such as having in-game friends (Wohn, 2014). To further enhance the social presence of players, Outland Odyssey does utilize a guild system. Every player can create a guild consisting of a maximum of 50 players, and only the guild leader can approve or remove members. The guild leader is free to either make his guild open for everyone or by invite only. The guild system is a cornerstone of the social aspect of Outland Odyssey, allowing players to play together in a co-op storyline with ease. Additionally, the guild chat is essential for staying updated with your friends and leaving them a message whenever they are offline. The "Market opportunity" chapter will highlight the importance of social aspects within a game.

Combat

The combat of an ARPG is the game's foundation to ensure a satisfying and smooth experience for the user. The combat of Outland Odyssey will play a significant role within the game and consists of a healthy balance of skill and positioning. The player can move freely through combat and does not follow a turn-based combat system. The player's combat mechanics consist of attacking, dodging, positioning, and utilizing skills. The pace of the combat is similar to Diablo and Genshin's impact, which fits the game's style.

Every Job has its own set of unique spells that fits the overall playstyle of that Job. Therefore, the Mercenary with powerful melee attacks focuses on single target damage, while a Hunter has dashes and other movement skills to escape dangerous situations. Therefore, the Hunter focuses on positioning and dodging, while the Mercenary lowers the gap between his enemies. By creating synergies between classes, there is an emphasis on team playing, which is beneficial to the game's social aspect. There are currently more than 100 unique skills within the game.

Players Vs. Environment (PvE)

Outland Odyssey has a strong foundation on PvE content with solo and co-op storylines, special quests, dungeons, and mini-games, as shown in figure 3. The player can bring 3 ZEDs with them, while one fights alongside the player. Players can tame or breed ZEDs, and the implemented catching mechanism of Outland Odyssey has some similarities to Pokémon™. ZEDs should not be defeated but strongly weakened and may escape if the attempt is unsuccessful. The taming process will be risky by making the player vulnerable to attacks. This is a clear risk to reward system where the player can reduce that risk with tactical decisions.

The game has an interesting storyline that invites the player to unravel the secrets of Morniun, the Keeper of existence. All players start their journey in Hunters' Haven, a relatively small city where they are immediately tasked with resolving the mystery. The game will have in-depth quests that lead the players through the storyline and give them plenty of opportunities to tame new ZEDs and expand their collection.

Figure 3 **Player vs. Environment content**

The social aspect of this game is incredibly focused on allowing players to play in co-op storylines and create their dungeons. The co-op story mode will allow players to play the storyline in co-op mode with unique quests. These events will allow players to battle mighty and rare mythical boss ZEDs to obtain powerful crafting components. The community of Outland Odyssey can create their dungeons by staking SHILL tokens. All the implications of staking will be highlighted in the "SHILL token" chapter. The dungeon owner can place ZEDs in his dungeon and let other players enter the instance. The owner gets rewarded with a portion of the loot that the player receives. Therefore, players have a financial incentive to create meaningful dungeons for other players because the dungeon owner can use these as crafting material and eventually either use or sell the crafted goods.

The game will have mini-games that players can participate in. These mini-games will mainly revolve around gathering, mining and fishing. The current mini-games that are implemented in the game are:

- Angler – Fishing

- Woodcutter – Tree cutting

- Miner – Gathering ore.

Player Vs. Player (PvP)

The Player Vs. Player gameplay of Outland Odyssey is currently Guild vs. Guild (GvG) and Tournament Battles. As stated in the chapter "Gameplay", guilds play a significant role within the game, and the implementation of GvG even further enhances this role. Guilds can enter tournaments to battle other guilds for rewards (i.e., SHILL). These battles can either be solo or team-based, which requires that teams consist of guild members. Guildmembers can also participate in special co-op quests to defeat Mythical ZEDs. Lastly, players can participate in PvP tournaments. These events allow players to showcase their skills and their ZEDs strength. There are two types of tournaments:

- Solo tournaments

- Team tournaments

The winner of these tournaments will receive SHILL tokens in their wallets. There will be a seasonal player leaderboard, whereby the top players will be highlighted and granted prizes after the season ends.

Decentralized Finance integrations (DeFi)

The Project SEED ecosystem utilizes DeFi integrations for DEX and NFTs. The ecosystem uses an NFT marketplace for all the trading surrounding their games. Therefore, the marketplace will be used for Player Player (P2P) transactions. Players can either buy and sell their in-game assets (e.g., weapons, gear, buildings) or rent and borrow them for a specified amount of time. The marketplace will be subject to a commission fee on every transaction within the marketplace. The commission fee is 5%, 30% of that fee will be used for the community treasury, 60% flows to the Project SEED company as part of their revenue stream, the last 10% will be used for charity.

The NFT market is relatively inefficient with liquidity as only a small percentage of items get traded. A rare in-game asset can be unobtainable for users considering its scarcity and trading value. Allowing that user to rent that specific item adds liquidity to the market by making these NFTS more liquid. However, besides the advantages, disadvantages will be discussed in the "Risk" Chapter.

Players can opt for priority listing to ensure that their listing shows on a 'relevant' item search against a small fee in SHILL. There is also an advertisement subscription for players where their items always show on the "relevant" list of items. This increases the probability of selling their items and reduces the overall liquidity risk. Players can further advertise their items or stores by an advertisement slot within the game. The Project SEED team will strictly manage this to prevent any harmful behavior of malicious actors (i.e., phishing).

The ecosystem utilizes a DEX as an on and off-ramp for SHILL to several token pairs. Holders of the SHILL token can stake in a liquidity provider pool, and in exchange, they get SHILL tokens as rewards. The DEX plays a crucial role within the ecosystem as it allows players to quickly trade their SHILL tokens to other cryptocurrencies without any complexity threshold. The DEX will utilize several APIs of several other DEXES to obtain accurate price data.

SHILL Token

The native token of Project SEED is SHILL. The initial circulating supply is 27,250,000 SHILL (excluding LPs), with a total supply of 1,000,000,000, shown in figure 1 in the appendix. The initial token support will be SPL and BEP-20; however, in the future, the token will be supported by other blockchain networks such as ETH, POLY, and Arbitrum. The token is deflationary because of the NFT crafting and multiple in-game features, which require SHILL and O2 tokens. These will be burned, and therefore the supply of tokens will decrease.

The SHILL token had three funding rounds; seed, private and public. The unlock token distribution, shown in figure 2 in the appendix, highlights the gradual unlocking of Project SEED tokens. In general, a gradual daily unlock is beneficial for the stability of the value of SHILL. The overall increase of supply is gradual and will not lead to supply shocks. Therefore, the market is much more capable of absorbing these small increases in the circulating supply. CERTIK audits the DeFi smart contracts of Project SEED, which is a reputable auditor of blockchain projects.

The SHILL token will publicly launch through an Initial Decentralized Exchange Offering (IDO). The ecosystem has partnered up with three significant IDOpads, Solanium, Gamestarter, and GameFi, shown in figure 3 of the appendix. The IDO ends on the 9th of November.

Utility

The utility of the SHILL token is governance, staking, and in-game features. The ecosystem will utilize a Decentralized Autonomous Organization (DAO) to ensure the ecosystem is fully decentralized. Stakers can vote and propose governance proposals, shown in figure 4, and voters get rewarded for their input in the governance based on their participation tier.

The player's voting behavior mainly influences their tier, and in total, there are three tiers:

- High
- Medium
- Low

Figure 4 SHILL staking synergy model

Governance voting will include but is not limited to game development, metaverse advancement, items library, equipment development, DeFi features and development, and more.

The SHILL token is used for staking by utilizing vaults. Currently, there are two vaults, the Single token vault and the Liquidity token vault, with a flexible or locked staking period, shown in figure 5. The single token vault is used for staking the SHILL token, while the Liquidity token vault is utilized for staking liquidity provider (LP) tokens. These LP tokens are obtainable through the supported DEXes. The APY rewards of these vaults differ, considering the perceived risk is significantly different.
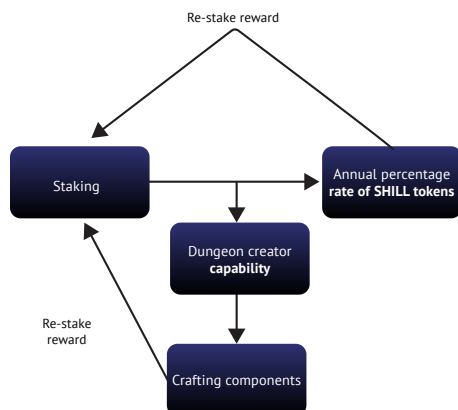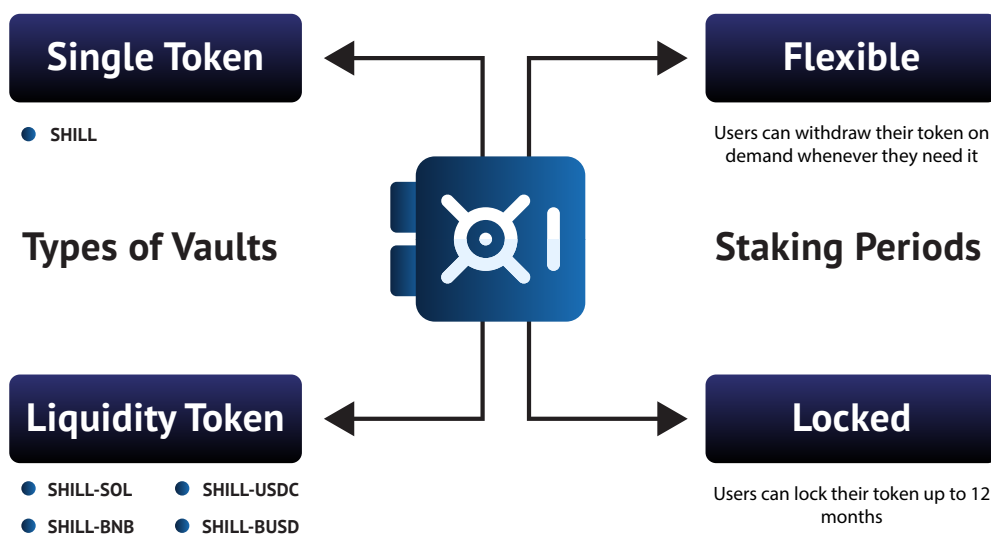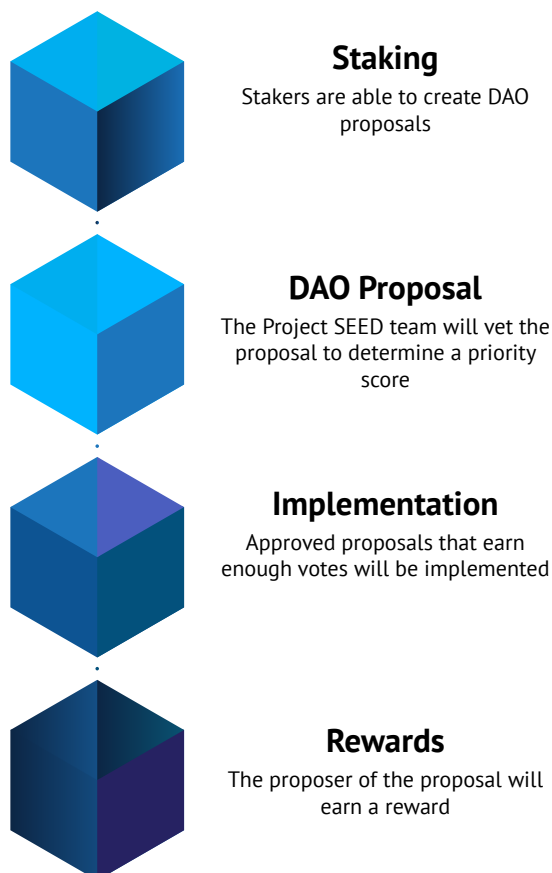
Figure 5 Project SEED Vault mechanism

he main benefit of staking is, besides getting APR, the ability to make your dungeons. As highlighted in the "Players Vs. Environment (PvE)" section, the dungeon owner gets a portion of loot that the user gets from the dungeon. The staking synergy model, highlighted in figure 6, shows the synergy between the different staking rewards and the staking mechanism. The staker, assuming it is an active player, can maximize its in-game rewards by attracting players to their dungeons and craft items of the obtained crafting components. The amount and rarity of the loot depend on the size of the dungeon and the strength of the ZEDs. The size of the dungeon will scale with the level of the player, while the ability to place high-tier ZEDS in the instance depends on the total staking amount. The dungeon owner can sell the crafted items for SHILL token and re-stake these tokens, maximizing rewards.

The economies of the Project SEED games are fueled by SHILL. The token is being used for in-game activities such as item- and ZEDs enhancement; these tokens are burned when used for these in-game activities.

The token plays a significant role within any game of Project SEED by being the ecosystem currency. As highlighted earlier in the research, SHILL tokens are obtainable through staking rewards, play-to-earn rewards, grants, and community rewards. The organic demand of the token gets generated by the players of the Project SEED games. The success of the Project SEED games is positively correlated with the value of the native SHILL token.

Figure 6 DAO Governance processflow

Staking
Stakers are able to create DAO proposals

DAO Proposal
The Project SEED team will vet the proposal to determine a priority score

Implementation
Approved proposals that earn enough votes will be implemented

Rewards
The proposer of the proposal will earn a reward

O2 Token

The O2 token is the in-game currency for Outland Odyssey. SHILL stakers get O2 tokens distributed based on their stake at the initial game launch. Additionally, the O2 token can be obtained through dungeon drops. The O2 token will have multiple ingame functions, such as NFT minting, Item Enhancement, evolving ZEDs to new tiers, and enhancing ZEDs to obtain unique skills. The O2 token does not have a fixed supply, but the deflationary mechanisms should stabilize the circulating supply. Using the O2 token in in-game activities (e.g., Items-, ZED enhancement) will burn these tokens. The O2 token will be tradable and, therefore, will have value outside of the game.

Value creation feedback model

Project SEED has created an ecosystem whereby unique network effects drive value creation for the ecosystem, shown in figure 7. The growth in the player base in any of their games will eventually lead to a rise in the value of the Native token SHILL token. The dependency is crucial as it ensures that all stakeholders of the ecosystem benefit from the created value.

Figure 7 Value creation feedback model

Figure 7 Value creation feedback model
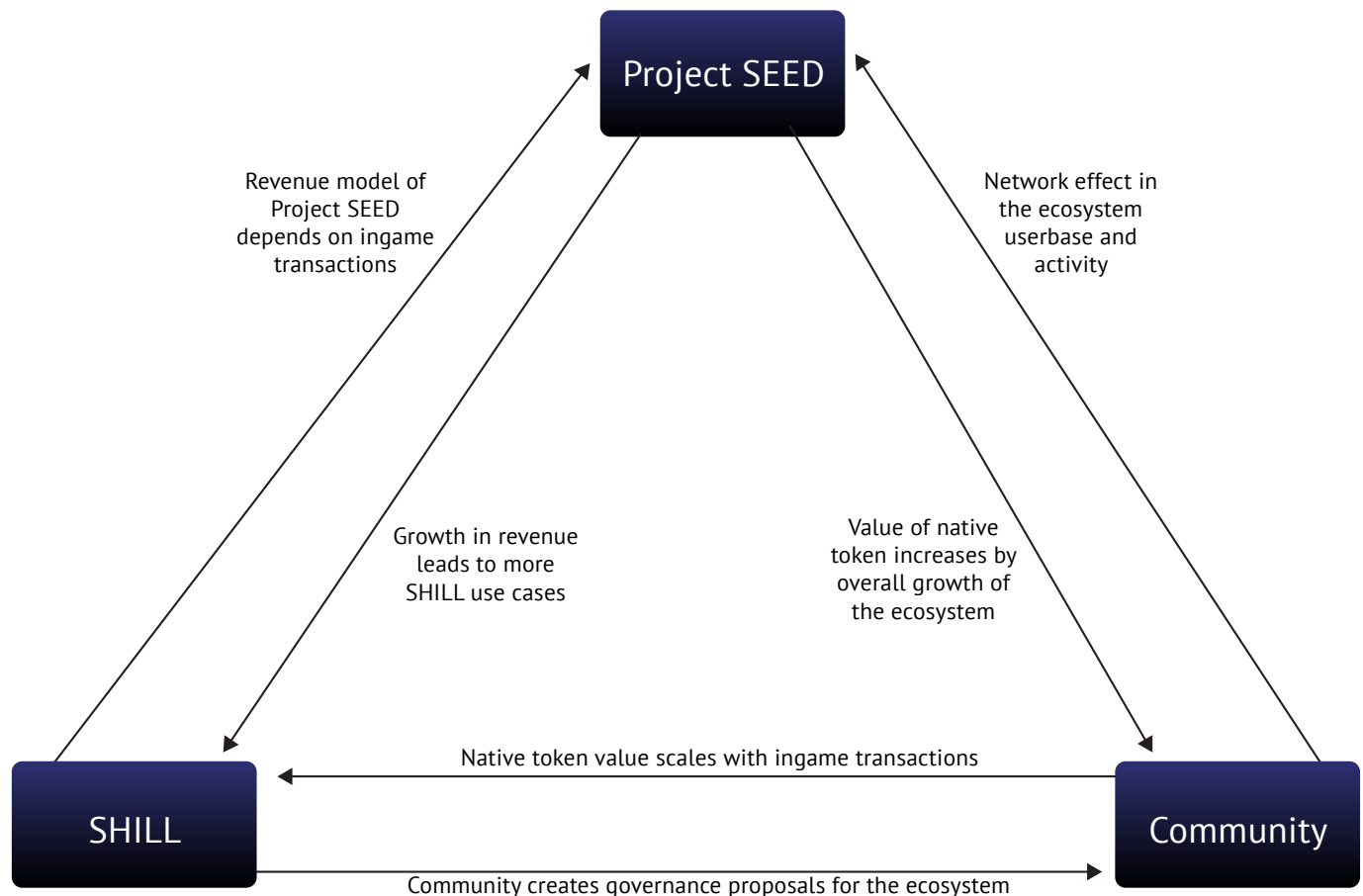
TEAM OVERVIEW

Team Overview

The Project SEED team consists of veteran game developers and blockchain experts, shown in figure 8. The team has an impressive background, with former employees of DreamWorks, Marvel, Square Enix, Binance, Crypto.com, Boeing, and Lexus. The current team consists of approximately 40 people, with a clear focus on game development. The team currently has four employees working on the marketing, four on the blockchain side, 16 graphical designers, and the rest is working on developing the game (e.g., Unity, Scriptwriting). The team mainly focuses on the development and graphical design for the game to ensure the game has enough assets and the gameplay is top-notch.

Figure 8 Project SEED Team

Liko Subakti - CEO

- A former employee of Binance and Crypto.com
- 3+ years of work experience in the blockchain industry
- 5+ years of work experience in marketing

Alex Setiawan – CFO

- A former employee of TripAdvisor
- 10+ years of experience in the Tech industry

Baskoro Hadi - CSO

- A former employee of Savage entertainment and Bas Bros Games
- 10+ years of experience in the gaming industry

Mohammed Elelu-Bashir - COO

- A former employee of Crypto.com, APCL, and Concost
- 5+ years of work experience in the blockchain industry

Dinh Thi Thao Trang – CMO

- Former employee Binance, VCORP
- 3+ years of work experience in the blockchain industry

MARKET FIT OVERVIEW

Marketing strategy

Project SEED's marketing strategy consists of the following pillars to ensure sustainable growth for the project and its native tokens SHILL and O2:

- Traditional gaming penetration

- Community initiatives

- Influencers

The Project SEED team specifies certain news outlets and mediums to target specific gaming audiences. By focusing on global Esport agencies, the project tries to engage with traditional gamers. The eSport industry is one of the quickest growing industries of the last decade, with total revenue of over 1 billion USD and 475 million yearly viewers in 2021. Its revenue is expected to grow to 1.6 billion USD in 2024, shown in figure 9(Statista, 2021). Adding financial incentives for Esport teams to engage with the Project SEED brand could increase the player base and eventually increase the native token of Project SEED.

Figure 9 Global eSports market revenue (2019 to 2024)
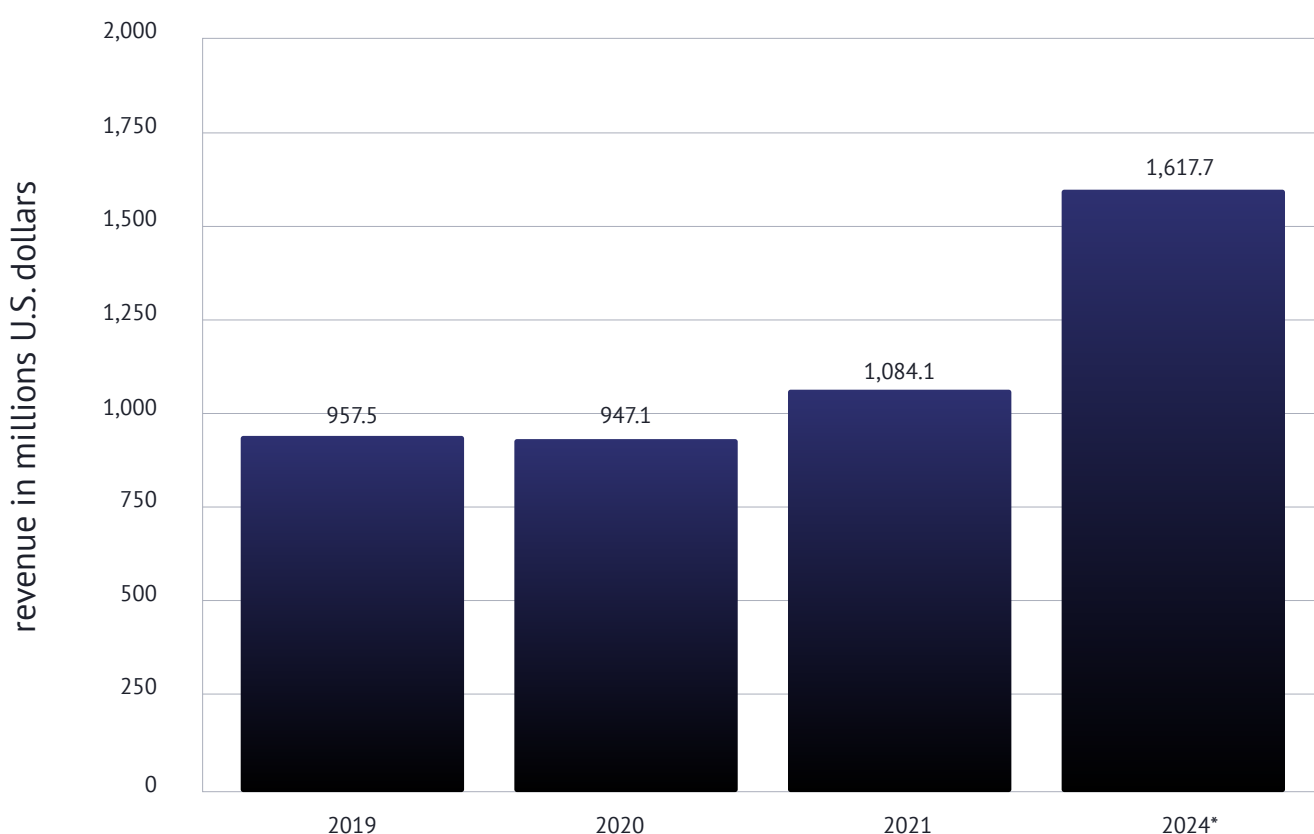
The ambassador program of Project SEED allows the community to engage with the project and get rewarded for their efforts by exclusive rewards. The ambassador program targets active community members to be part of the Project SEED marketing team and the community managers to increase the reach about the project.
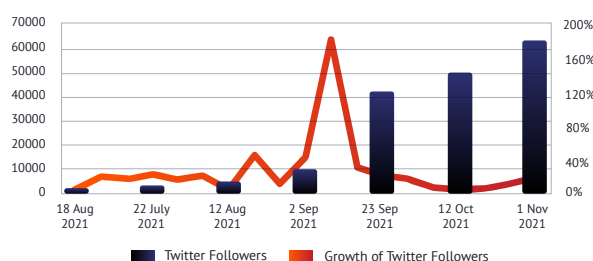
The last pillar is influencers. The project utilizes the reach of cryptocurrency influencers to spread knowledge about the project. In general, the use of cryptocurrency influencers is widespread within the industry. The impact of these influencers is considerable, therefore utilizing them for their reach is logical for a newly established project.

Audience

According to DFC Intelligence, global game consumers are approaching 3.1 billion, translating to 40% of the global population. The biggest and fastest-growing segment is mobile gamers, with approximately 1.6 billion global mobile gamers (Editorial, 2020). The largest gaming market in the Asia Pacific with global revenue of 72.2 billion USD, and 85% of that industry revenue comes from Free-To-Play games (Video Game Industry Statistics, Trends and Data In 2021, 2021).

Figure 10 Twitter digital presence

Project SEED is actively focusing on a diverse audience that Will form a community for the game. The target audience, shown in figure 3 in the appendix, is male-dominant and Between 18 to 40 years old. The geographical focus will initially be on Asia, but later the rest of the world will follow. The initial focus on Asia is rational, considering the significant size of the local mobile- and gaming industry (Statista, 2021a).

Digital presence overview

The digital presence of Project SEED has significantly increased in September and October, with incredible growth on Telegram and Twitter. The cause of the uptick in the digital presence is that Project SEED is performing various marketing campaigns (e.g., giveaways, partnerships, influencer coverage) on their social media accounts. Currently, the project has 63,000 followers and 42,000 members on Telegram, with an average growth rate of 30% on Twitter and 28% on Telegram, shown in figures 10 and 11. It is expected that the digital presence will increase even further when the native token SHILL launches. Considering it is more likely that cryptocurrency influencers will highlight the project through their social media channels. Due to the impact of these social media posts, the digital presence is expected to increase significantly. The overall current growth numbers and digital presence is impressive, and considering the disruptive nature of the project, the chances are that this might be just the beginning.

Figure 11 Telegram digital presence
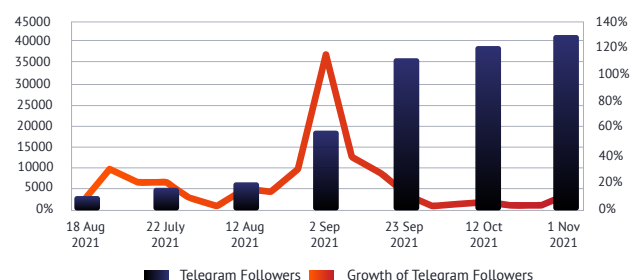
Technical overview

Project SEED aims to combine traditional gaming with the blockchain industry. Blockchain technology has its advantages, such as that it is decentralized and immutable. However, the reputation of blockchain technology can be a significant drawback for companies. The newly arising technology is often labeled as complex with complicated features and requirements. Project SEED plans to break these complexity thresholds with intuitive UI and a smooth gaming experience.

Outland Odyssey is the first game of Project SEED and will initially launch on Android and iOS. The game runs on the Unity engine because the engine is relatively flexible and is considered the industry standard for mobile games. The main benefit of Unity over other engines (e.g., Unreal Engine) is that the engine is highly flexible and lightweight, improving mobile devices' overall performance. The Unity engine allows further multi-platform development, allowing Project SEED to extend the support of their games on other platforms (i.e., PC, Xbox, PlayStation).

Level of Details (LOD) refers to the complexity of a 3D representation. The distance between the player and objects influences the number of polygons that are being rendered. The objects visibly gain definition as the distance between the player and the object decreases, essentially saving processing power for other tasks. Therefore, increasing rendering efficiency by decreasing geometry details, texture maps, and shader management will increase the game's performance and visuals.

In-game wallets

The game utilizes in-game wallets to store SHILL and O2 tokens. A third party will develop these in-game wallets to ensure the Project SEED team can focus on developing the game. Due to the lack of experience in wallet design and to prevent any security issues, it is understandable that the team has decided to outsource the in-game wallets to a third party. This way, the team can focus on game development and ensure the game is polished without worrying about integrating wallets and handling potential drawbacks.

The in-game wallets of Project SEED are multi-chain; therefore, users have to flexibility to utilize multiple blockchains. Due to the difference in characteristics of blockchains, players can avoid high transaction costs by utilizing high-performance blockchains (e.g., Solana) to send their tokens or NFTs.

Roadmap analysis

The roadmap of Project SEED is relatively impressive, as shown in figure 5 in the appendix. The upcoming quarters will mainly involve game development and blockchain integrations, with the full game release scheduled in Q4 2022. The milestones of previous quarters have all been achieved, except for the public sale. The reason for the delay of the public sale is most likely because of the current market sentiment. The current quarter, Q4, is attractive considering the NFT marketplace and staking will launch significant releases, which will provide the first utility usage cases for the SHILL token.

Strategic partners overview

The significance of strategic partners is incredible in a volatile and fast-changing industry. Project SEED has numerous influential partners, shown in figure 12, which will create value through expertise, funding, and overall reach. The project is currently backed by influential venture capitals and incubators such as Y10 Ventures, Huobi Ventures, and Black Mamba ventures.

The partnership with Huobi ventures is significant as Huobi is a top 5 global exchange and a top 3 Asian exchange based on daily volume (CoinMarketCap, 2021). Furthermore, Huobi Ventures has previously invested in ambitious projects such as Aelf, Ren, Ontology, and Stacks. Combining the expertise that Huobi ventures can bring together with their global exchange can create a significant amount of value for Project SEED.

**Figure 12 Strategic partners of Project SEED**

MARKET OPPORTUNITY

Gaming industry

The gaming industry is one of the most prominent entertainment industries and is worth more than the combined markets for film and music. According to a recent study of Accenture, the total value of the gaming industry exceeds 300 billion USD, shown in figure 13. The report predicts that over 400 million new gamers are expected within two years (Accenture, 2021). According to a recent study, the mobile gaming industry is the quickest growing industry within the gaming industry, with a valuation of 98 billion USD in 2020. The expected valuation is 272 billion USD in 2030 at a compound annual growth rate (CAGR) of well over 11% (Ltd, 2021). To put the growth into perspective, the film and music industries are valuated at 289.13 billion USD with an expected valuation of 392.34 billion USD in 2025 at a CAGR of 6% (Ltd, 2021a). The expected CAGR of the gaming industry is nearly twice as high and, with Esports ramping up, there is no sign of stopping soon.

**Figure 13 Global gaming industry (in)direct revenue**
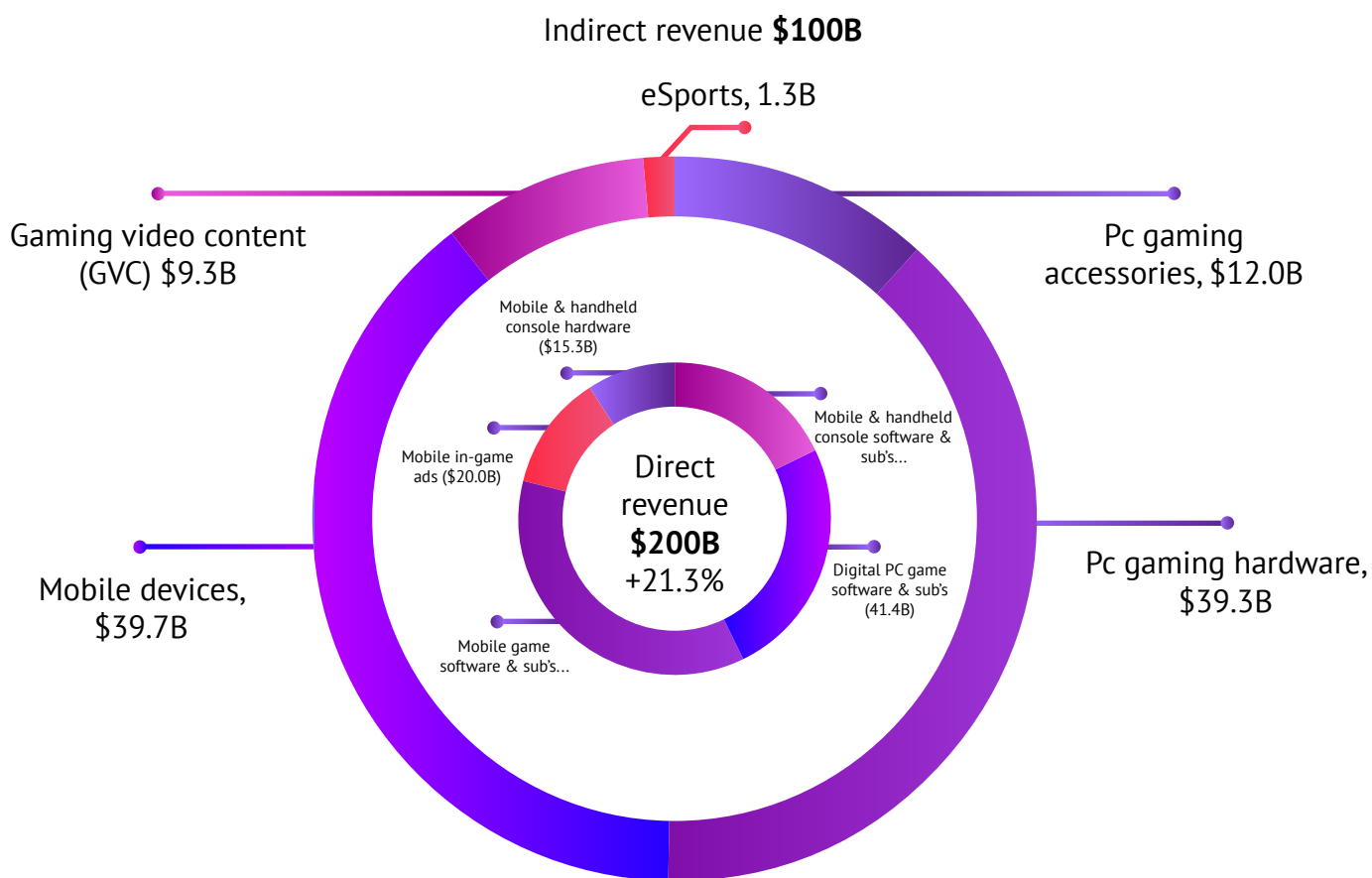
Mobile gaming

Mobile gaming has been a significant force behind the abnormal growth of the global gaming industry. In 2020, mobile games accounted for almost 50% of the total revenue of the global gaming industry (Statista, 2021b). Mobile penetration rates are increasing rapidly with more affordable smartphones in lower-income regions. According to a recent study by Pew Research, in 2013, only 17% of young adults in Asia owned a smartphone, which grew to 66% in 2018.

The leading mobile gaming market in Asia has a significantly higher market share than any other continent. The accessibility of mobile games with free-to-play models, combined with mobile penetration rates, is thriving in the Asian mobile gaming industry. Unsurprisingly Asia makes up for 50% of the global revenue in the mobile gaming market in 2021, while in 2014, this was still 43%, shown in figure 14. The mobile gaming industry in Asia is still growing, with Tencent being a leading force. The video game revenue of Tencent was 29.3 billion USD in 2020 alone, which is an increase of 28%. Therefore, the conclusion can be made that the mobile gaming industry still has considerable growth potential, and therefore it is a smart move that Outland Odyssey is targeting this industry.

Figure 14 Global video gaming industry market value by region (2020 to 2025)
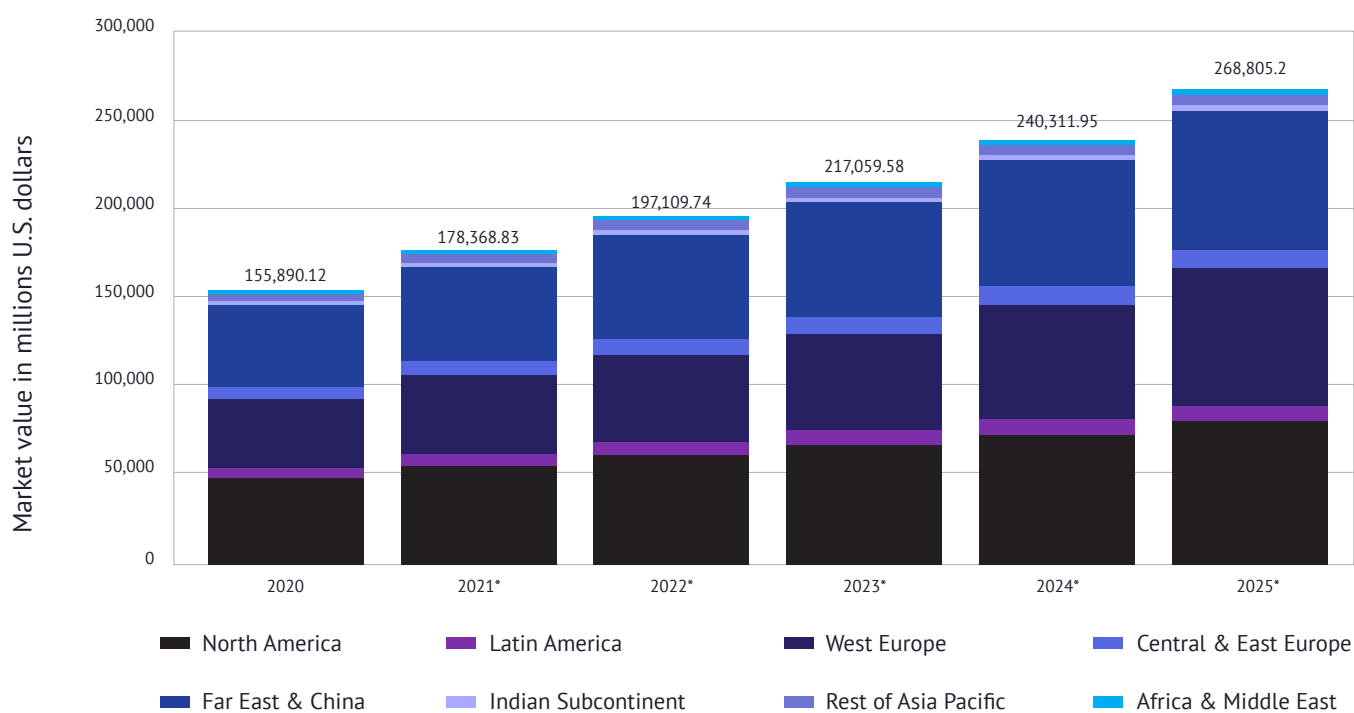
Social gaming

The social aspect of video games is getting increasingly more important for players. According to a recent study about the motivation of players who make purchases within social casino games, there were significant findings that the social aspect within social casino games is an essential feature for paying players (Gainsbury et al., 2016). According to another study on the reason why players make purchases in mobile social network games, findings show that hedonic gratification (i.e., entertainment) and social gratification (i.e., self-presentation) have a significant indirect effect on players' purchase intentions (Huang et al., 2017).

Integrating social networks within a game is essential for a free-to-play game, such as Outland Odyssey. Therefore, the game implements multiple social systems for players to interact, trade and battle. These integrations can lead to a higher probability of paying players and therefore increase the price of the native tokens, O2 and SHILL

GameFi

The blockchain gaming industry has been one of the quickest growing industries of the last few months. The current market capitalization of the blockchain gaming industry is 8.6 billion USD, placing it in the top 30 most valuable industries based on market capitalization (Coingecko, z.d.). The industry has been on an uptick lately in popularity, with Axie Infinity taking the crown. The game recently breached 1 billion USD in sales by all-time trading volume (Yahoo, 2021). In the last 30 days, the game generated 600 million USD in sales across 1.7 million transactions (DappRadar, z.d.). Axie currently has more than 1,000,000 average daily unique active players on their platform (Activeplayer.io, 2021). To put this in perspective, Apex Legends, a triple-A game, has around 330.000 players on-peak hours (Steam, 2021).

Play-to-earn (P2E)

The Play-to-earn model embraces the concept of an open economy and provides financial benefits to all players who add value by contributing to the Outland Odyssey metaverse. Players create value for the game developers by playing the game and get rewarded for their participation in NFTs (i.e., ingame assets). These digital assets are anchored on the blockchain, and the player is the true owner of the digital asset. The main difference between P2E games and traditional games (e.g., League of Legends) is that the player holds the right to their digital assets and can sell them to cryptocurrencies or even fiat at any moment. In addition, traditional games are zero-sum games, meaning the player is not rewarded for their input while an active player attracts new players to their games. The general revenue model of the gaming industry relies on microtransactions. As such, the size of the player base and the engagement rate is essential. However, the revenue model of Project SEED depends on players utilizing the DEX and NFT marketplace.

Outland Odyssey

Outland Odyssey has similarities with Pokémon™, but still has unique RPG components integrated with the gameplay. The first Pokémon™ game was launched in 1996 in Japan. More than two decennia later, the franchise is still top-rated, with the latest game, Pokémon Unite, launched in July 2021. It has been one of the most successful gaming franchises globally, with over 380 million copies sold worldwide (The Pokémon Company, z.d.). The franchise is top-rated because of its accessibility and overall casual gameplay. The competitors of Pokémon, such as TemTem, are relatively popular as well. TemTem, a box price game, has over 1400 daily players and seems stable around this number (Steam, 2021b). Currently, many blockchain games have similarities with Pokémon™, and one of them is Outland Odyssey.

The combination of unique game design with monetizing your Content can be the catalyst for Outland Odyssey. The play-to-earn component of the game rewards players for their input to the Outland Odyssey metaverse. Players can monetize their dungeons as dungeon masters, therefore earning NFTs that are tradable for SHILL tokens. The synergy between the gameplay and monetization components creates value for the game developer and the player.

Replayability

Outland Odyssey tackles replay value in a way that addresses most needs from a player, with an addictive gameplay loop and a perpetual sense of reward. The gameplay of Outland Odyssey has an addictive nature, with unique gameplay components to keep the game challenging and rewarding. The gameplay loop of Outland Odyssey consists out of several components; Character, ZED, and storyline progression. The game has several mechanics to keep players engaged, and therefore active in the ecosystem. As stated earlier in this research, the engagement of players with the Project SEED games is crucial for the value of their native tokens SHILL and O2. Therefore, a high level of replayability and rewarding behavior will increase the overall network activity of the ecosystem and, eventually, the value of SHILL.

COMPETITION

GameFi competition

The competition within the gaming blockchain industry is rapidly emerging, with even traditional gaming studios entering the industry (Ledger Insights, 2021). Therefore, the competition is getting tough, and players have more choices to pick from. The quality of games and their gameplay is subjective; therefore, reviewing gameplay is bound to subjectivity. Benchmarking competitors based on numbers will portray an unbiased image of the overall player base and if players are willing to play the game.

Figure 15 GameFi competitors overview
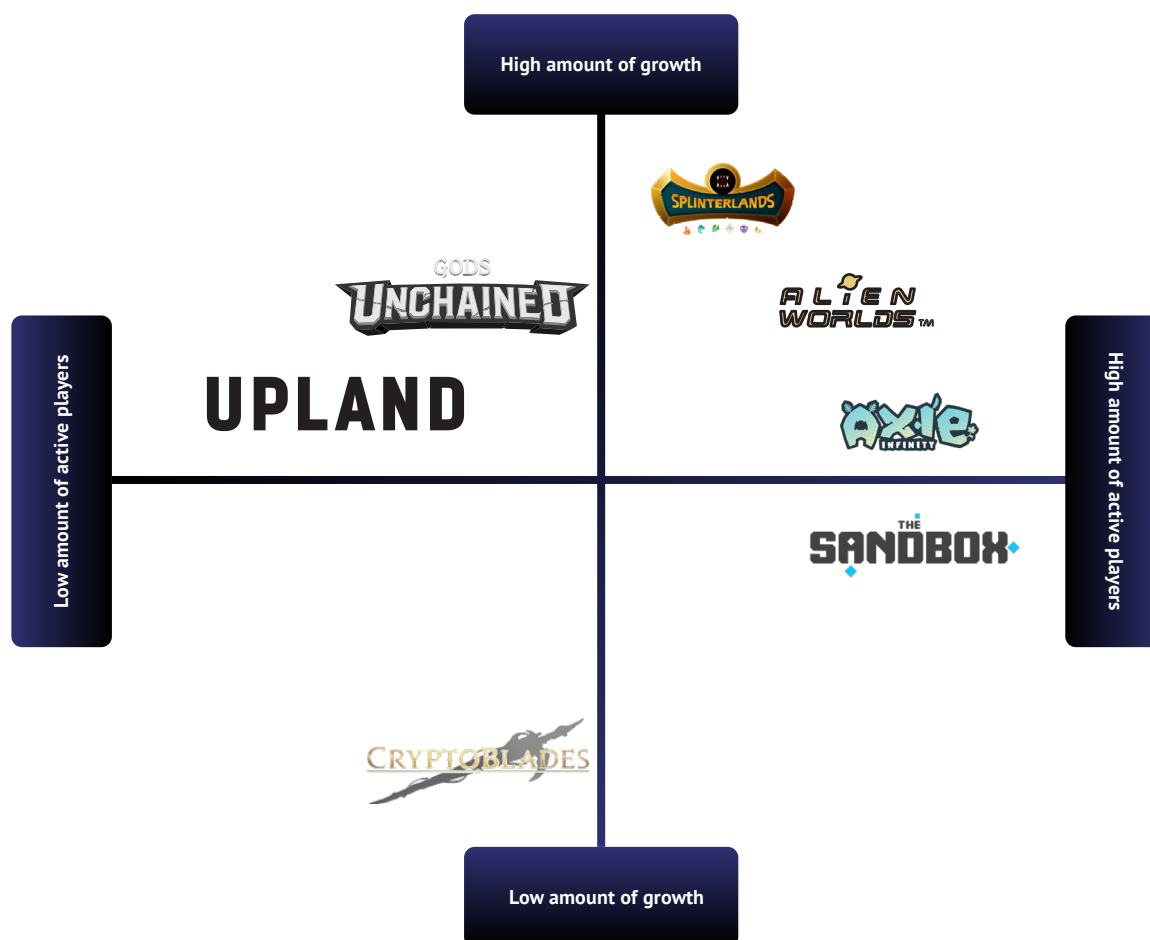
GameFi industry

The GameFi industry is currently valued at 8.6 billion USD, with several major projects (e.g., Axie Infinity, The Sandbox). This industry is one of the quickest growing within the cryptocurrency industry. The main competitors of Outland Odyssey, shown in figure 15, are generally experiencing growth in the number of monthly active players, with an average monthly growth rate of 38.33%. The industry's growth has not gone unnoticed as there has been a considerable influx of new GameFi projects. Therefore, the competition is getting more significant, and the overall perception of quality is increasing.

The main competition of Outland Odyssey will be Axie Infinity and Spliterlands, as both these games have a clear focus on collecting, trading, and playing.

Axie Infinity

The most popular game by user numbers is Axie Infinity, with a daily player base of 1.1 million players (Activeplayer.io, 2021). The game launched in 2018 and was not initially a success. The game has recently blown up in player numbers as the cryptocurrency community realized the potential of the play-to-earn model. The ecosystem is currently handling over daily 56.000 sales with a volume of 13.15 million USD (DappRadar, z.d.). The game registered 364 million USD in protocol revenue in August 2021, up from 196 million USD in July 2021 (Crypto Briefing, 2021).

The game revolves around players collecting, breeding, raising, and trading creatures called Axies. Players can utilize these Axies to battle other players and rewards players with Smooth Love Potions. This ingame item is used for breeding Axies, creating an ingame ecosystem surrounding the potions.

Splinterlands

Splinterlands is a trading card game with an average daily player base of 272K players. The game launched back in 2018 as Steem Monsters. The ecosystem has been growing significantly in the last three months by handling over 58K daily sales with a volume of 172.000 USD. The game utilizes the HIVE ecosystem, benefiting from significantly cheaper transaction fees than the Ethereum based Axie Infinity.

The game revolves around players collecting and trading cards, with which players can play games against other players. The player can purchase the Summoners Spellbook, a 10 USD purchase to create a blockchain account that turns players into Splinterland owners and essentially allows them to earn a tradeable secondary token, Dark Energy Crystals. This secondary token is used as an ingame currency to trade cards, creating organic demand for the token and an economy.

RISKS

Random number generator systems

The usage of RNG algorithms is nothing new in the gaming industry. However, the recent use of these systems has been extraordinary. The issue of the RNG system depends on the severity and if the experience of a game depends on RNG. The potential risk of implementing various RNG systems, which dictate whether a player can progress, is significant. The issue gets aggravating if a player cannot progress through a game because of not having the right in-game items or stats. Therefore, the player cannot progress through the more complex and challenging areas and dungeons.

According to a recent study (Zendle et al., 2020), most in-game RNG systems (e.g., loot boxes) are highly problematic. The spending on these RNG mechanisms is more often linked to gambling, even with the presence of cashing out on your digital assets. The cash-out feature and game currency strengthen the link between problem gambling and RNG systems like loot boxes. Due to the nature of the issues, various countries are either considering or have banned loot boxes and similar systems.

Outland Odyssey does not necessarily have a loot box system. However, it has multiple RNG mechanics that can be classified as 'loot box' like systems. Considering that the business model of Outland Odyssey relies on these RNG mechanisms, it could turn out to be an imminent problem if regulation tightens.

Pay to win

Traditionally, there is an in-game currency in the gaming industry that is solely obtainable through playing the game. The currency is not obtainable outside the game and cannot be traded outside the game. Most P2E games utilize a cryptocurrency that functions as the in-game currency while being tradeable out and inside the game. Therefore, the in-game currency can be bought with fiat and cryptocurrency. The issue with an in-game currency that is obtainable outside the game is that it potentially could lead to economic and social problems within the game.

The magnitude of pay-to-win issues depends on the accessibility of the in-game currency outside of the game. Suppose that the in-game currency is easy to obtain through easy-to-navigate websites or applications. If that is the case, it could lead to an unhealthy in-game market, where whales are actively manipulating the market by controlling the supply and demand of certain in-game items. This could create a toxic space where players cannot progress and therefore get upset with the state of the game.

Outland Odyssey does recognize this problem by adding a loan mechanism for in-game items. However, this will only solve one side of the issue by adding lending in-game items. It allows players to utilize specific items they might not be able to afford. The status quo will remain the same: whales can manipulate the lending market by hoarding certain items and pushing the competition out. Therefore, the starting thresholds of players can be considered as seen by Axie Infinity. This issue is a zero-sum game where the player will likely lose revenue or is less likely to progress through the game. The player's revenue decreases when the base exceeds a certain point making supply and demand shift towards a new curve.

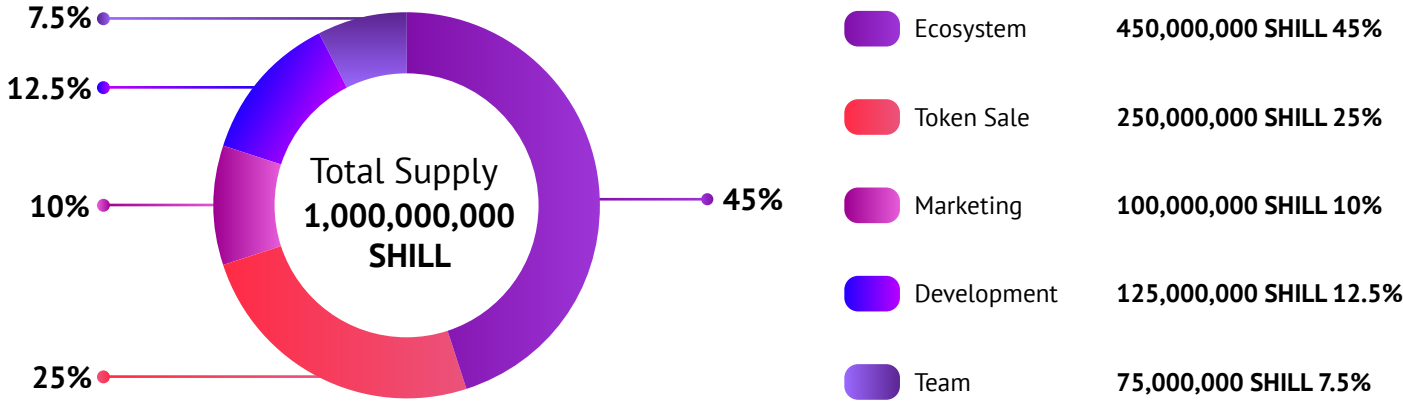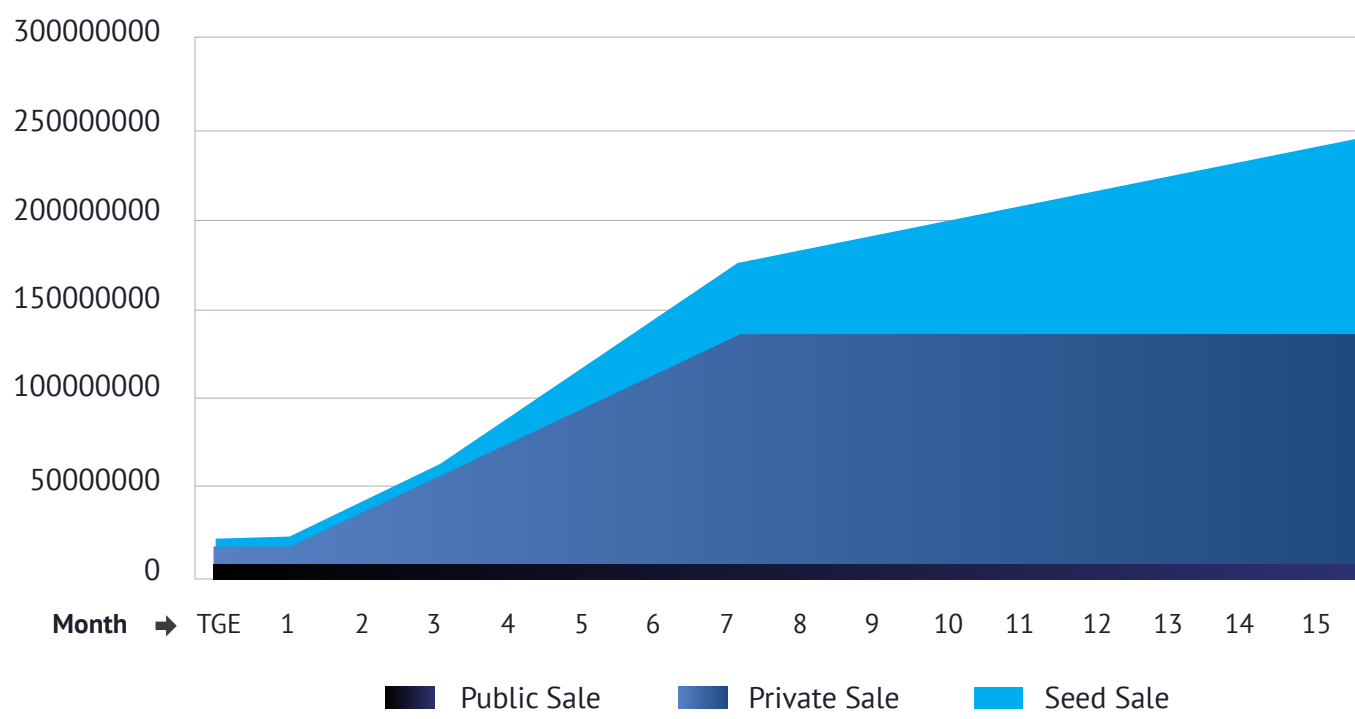# APPENDIX

Appendix

Figure 1 Tokenomics of SHILL

Total Supply 1,000,000,000 SHILL

- 7.5%
- 12.5%
- 10%
- 25%
- 45%

Ecosystem	450,000,000 SHILL	45%
Token Sale	250,000,000 SHILL	25%
Marketing	100,000,000 SHILL	10%
Development	125,000,000 SHILL	12.5%
Team	75,000,000 SHILL	7.5%

Figure 3 Initial Decentralized Exchange Offering launchpads

Game starter
SOLANIUM ventures
GAMEFI

Figure 2 Token sale unlock distribution

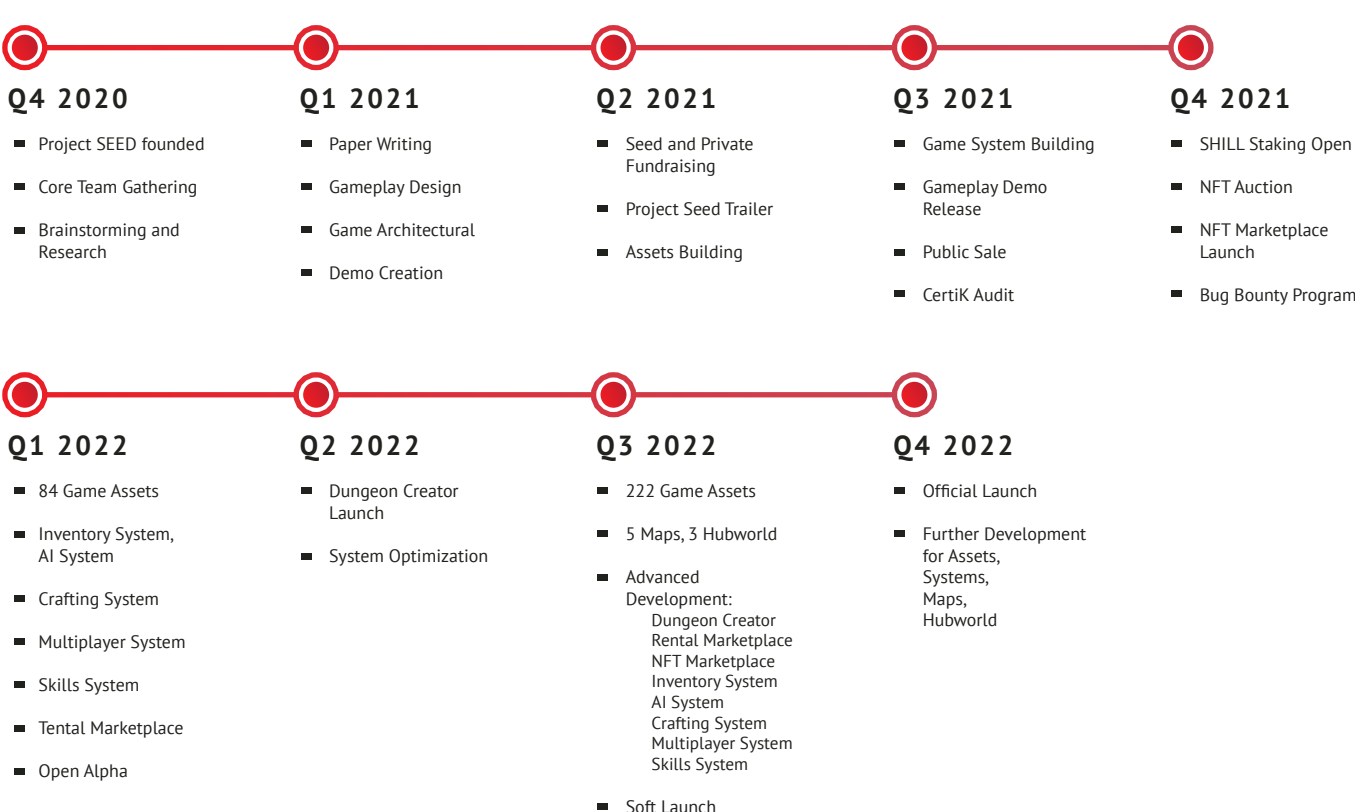Month → TGE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

■ Public Sale   ■ Private Sale   ■ Seed Sale

Title 3 Target audience of Project SEED

Demographic	Age 18-40 years old	Gender 80% male 20% female	Social Class All social class
Geographic, Behavioral and Psychographic	Geography Worldwide, starting from Asia, then America, Europe and Africa	Gamer Types Both professional and general gamers	Taste Young players who love collecting game items and artsy designs.

Title 4 Roadmap of Outland Odyssey (Q4 2020 to Q4 2022)

Q4 2020
- Project SEED founded
- Core Team Gathering
- Brainstorming and Research

Q1 2021
- Paper Writing
- Gameplay Design
- Game Architectural
- Demo Creation

Q2 2021
- Seed and Private Fundraising
- Project Seed Trailer
- Assets Building

Q3 2021
- Game System Building
- Gameplay Demo Release
- Public Sale
- CertiK Audit

Q4 2021
- SHILL Staking Open
- NFT Auction
- NFT Marketplace Launch
- Bug Bounty Program

Q1 2022
- B4 Game Assets
- Inventory System, AI System
- Crafting System
- Multiplayer System
- Skills System
- Tental Marketplace
- Open Alpha

Q2 2022
- Dungeon Creator Launch
- System Optimization

Q3 2022
- 222 Game Assets
- 5 Maps, 3 Hubworld
- Advanced Development: Dungeon Creator Rental Marketplace NFT Marketplace Inventory System AI System Crafting System Multiplayer System Skills System
- Soft Launch

Q4 2022
- Official Launch
- Further Development for Assets, Systems, Maps, Hubworld

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