# Ludena Protocol

Play-to-Earn Game Social Platform

#### Whitepaper 2.5

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## Introduction

Gaming has become one of the most consumed forms of entertainment present day but the absence of a game platform for all the participants(players, investors, developers) has resulted in expensive fees, ineffective marketing, and an unsatisfying user experience. The traditional game industry, growing billions of dollars annually, is characterized by an oligopoly of large gaming corporations. Recently, decentralized games (dApps) have brought innovative change to the gaming industry; the rise of **NFT Marketplaces** gave ownerships of the digital assets back to the users, and the growth of DeFi(Digital Finance) market has led to real usage of digital assets in games,

**Ludena Protocol** is the largest blockchain game social platform in the world with 3 million active users. Ludena Protocol, which has already launched Gametalktalk as their first DApp, a gaming social platform that connects games and players, adds value to game player's daily activities such as gameplay, game content production, and live streaming. GameTalkTalk is a blockchain-game integrated ecosystem, and through gamification, LDN tokens are provided as rewards. The Gametalktalk platform provides a feature where players can 'Pin' a game of their interest and enter a space where they can communicate with other players globally.



Ludena Protocol has been recognized for its potential within the industry and was built around addressing concerns regarding scalability and developing an ecosystem where all the participants of the gaming industry can coexist. Innovative ecosystem structures developed on top of **Play-to-Earn(P2E)** games such as the **Axie Infinity** have provided direction to Ludena, and the aim for a self-sustained blockchain game ecosystem in the market.

The structure of the **Play to Earn(P2E)** is where players are rewarded for active gameplay with in-game digital assets that can be traded within an **NFT marketplace**. Furthermore, these **P2E games** such as Axie Infinity's scholarship selection, a **community system** that selects and manages players who can focus only on gameplay, and a **wallet** that manages these players are extremely important components of the whole structure. The real motives of the players participating in the ecosystem, a clear usage of the tokens, the supply and demand structure as players increase will be covered by Ludena's plan to cover its game Ecosystem problems.

This is also an important reason for Ludena Protocol to position itself as a blockchain game social platform that can potentially handle **P2E games** on a blockchain gaming social platform. Unlike other **P2E games**, one of **Ludena Protocol's** main strengths is that it allows players to earn tokens with the Play to Earn concept on several games and not just one.

Until now, **P2E games** have been created with the limit of an individual game, however, Ludena Protocol intends to focus on creating a **P2E game platform** model on a larger scale.

Ludena protocol's Dapp, gametalktalk has a PIN feature that allows players to connect with any game in the world which makes Ludena the fastest **Play-to-Earn(P2E)** gaming platform.

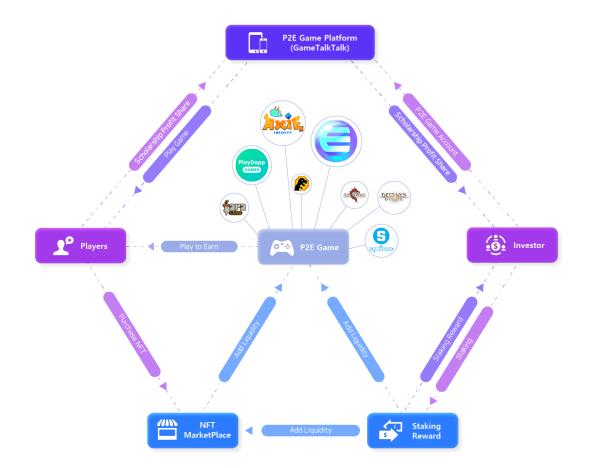
Even before the rise of the **Play-to-Earn** gaming concept that has become a big trend in the industry, Ludena Protocol has already been using this mechanism through its gametalktalk application's minigame. Through the **NFT marketplace** and the **staking pool** that is soon to be released, Ludena will structure a firm token economy in the ecosystem. **Ludena Protocol** believes that for the ecosystem to spontaneously expand and grow, the **P2E platform** foundation is essential.

The development of the **P2E platform** was the essential step in order for onboarding games of partners. The next step is to build the **staking pool** and **NFT marketplace** which currently is on the verge of its launch. Finally, the launch of the **P2E game**, will complete the **Ludena Protocol**'s ideal ecosystem and through new game incubating and onboarding, Ludena will continue to globally expand and develop a meaningful ecosystem.

# THE ECOSYSTEM

Ludena Protocol, Providing Play-to-Earn(P2E) Gaming Platform to all the players around the world

Although **Play-to-Earn(P2E)** became the most trendy mechanism in the DApp(Decentralized) category, blockchain games are still facing problems with the most vital element of growth and expansion in securing users and players. To implement an efficient **P2E** system, Ludena Protocol has divided its 3 million users into 3 fundamental principles: **P2E Game Platform, P2E Game** and **NFT Marketplace,** and **Staking Pool.** 



Investors that are purely holding LDN tokens in their wallets, can participate in Ludena's staking and P2E ecosystem. Participants can either purchase LP tokens (Liquidity Pool Tokens) and receive rewards from providing liquidity to Ludena's staking pool, or purchase in-game NFTs to battle through various P2E games, and earn contribution rewards. The liquidity that has been provided to the NFT Marketplace, P2E Games, and P2E Game Platform will support platform development and expansion in securing and attracting more players.

P2E Game Platform - Renovate and adopt Gametalktalk into the world's first P2E game platform with more than 3 million users that can share accounts and fairly distribute revenue into boosting productivity. Ludena Protocol supplements and establishes the issues of moderate reliability that exist in the existing P2E game platform. DApp (decentralized application) Gametalktalk can prevent and regulate the complication through standing as an intermediary between the users to prevent any "scams, misuse, or unfair distribution" that may occur when playing P2E games.

P2E Games and NFT Marketplace - Ludena Protocol has been conducting many strategic partnerships with NFT and DApp Games-related teams recently and is currently preparing to launch NFT Marketplace in September before releasing its official P2E games. In addition to the LDN governance token, we are also planning to launch a utility token that can interact with P2E games as NFT Marketplace opens to utilize participants to experience a more advanced ecosystem with much fewer transaction costs, scalability, and faster transaction speed.

Staking - The staking pool will be launched with a variety of pairs integrated into Play-to-Earn (P2E) games and NFT Marketplace. Ludena Protocol's staking pool will provide its contributors and users with LDN Token as compensation for providing liquidity to the ecosystem.

Ludena World, Metaverse - The **Ludena protocol** started in the beginning with one ultimate legitimate goal; creating a social ecosystem for all players in the game industry, including game players, game publishers, investors, and game developers. Likewise, to create an infinite virtual reality world where intellectual players, publishers, and passionate developers can come together to coincide with users and the ecosystem. Ludena's Metaverse World will perform a **P2E** mechanism that utilizes all the participants in the game industry to connect and appoint; players generating revenue, efficient marketing by publishers, productive content development, and expansion with no cost.

## **Development Plan**

**Ludena Protocol,** the first comprehensive gamified social gaming platform, where gamers around the globe can play, trade, and share on a single application have now evolved to its 2nd stage of the development cycle: adoption of the Play to Earn **(P2E)** mechanism.

For over 8 years, **Ludena Protocol** has been successfully managing over 3 million die-hard gamers in the world's most competitive country for the gaming industry, South Korea. Building strong relationships with numerous influential partners, **Ludena Protocol** has reached its initial goal and is very close to finishing everything on the roadmap.

**Ludena Protocol** has designed 3 steps in the beginning to reach the ultimate goal, building a metaverse for players, publishers, and developers:

Build an application full of users in the game industry Integrate blockchain functions such as staking tools and games Create a **P2E** metaverse world for players, publishers, and developers

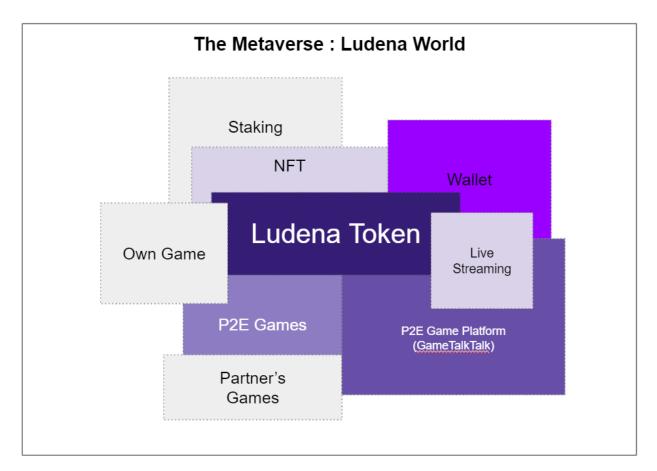
Ludena Protocol has successfully finished the first part of the long journey and is onto the next step: Integrate blockchain functions (P2E games, Staking) on the application. With a new roadmap and incredible new partners, Ludena Protocol will be integrating a fully functioning Play-to-Earn (P2E) game, NFT Marketplace, Staking pool, and P2E Game Social Platform.

The professionals in the Ludena team from traditional gaming companies now have served in the blockchain industries for several years operating applications with over 3 million users such as 'GameTalkTalk'. As the gaming industry is quickly evolving with P2E integration, **Ludena Protocol**'s sizable infrastructure and the influential network would be one of the most needed platforms among players, publishers, and developers.

# THE VISION

Ludena Protocol's ultimate goal, a metaverse world of gamers: Ludena World

For the past 8 years, the **Ludena Protocol** has always been working towards one goal. Social gaming platform with 3 million users ready for mass adoption, blockchain functions (Play-to-Earn, **NFT Marketplace**, Staking, etc) incorporation with a mobile application, and numerous partnerships with top-notch gaming companies; we're just steps taken to reach the ultimate but fundamental goal, Ludena world, the metaverse of gamers.



Through its existing infrastructure (community, blockchain, game), **Ludena protocol** intends to reach its ultimate goal of creating the Ludena Metaverse world :

**Community** - For many years, **Ludena Protocol** has gathered more than 3 million domestic users in South Korea, the biggest market for die-hard gamers in the world. As much as the rise of DApps makes every blockchain lover happy, mass adoption will only happen with users that are not familiar with blockchain technology. To build a fully functioning metaverse world that everyone is waiting for, it is crucial to have a sizable number of real users and the user base of **Ludena Protocol** simply proves the project's attractiveness and potential.

**Blockchain** - LDN Token, successfully launched in 2019, is currently listed on various major exchanges. **Ludena Protocol** is also building a staking pool to complete the **P2E ecosystem**. Furthermore, the **NFT marketplace** allows users to buy and sell goods for their avatars as well as their fan art with LDN tokens. As the **Play-to-Earn (P2E)** ecosystem gets more complex, utility tokens will take their place for smooth operation. With an in-house development team, **Ludena Protocol** will continue to meet every technical roadmap to keep up with the fast-paced blockchain industry.

P2E Games - One of the first adopters for the Play-to-Earn (P2E) mechanism on Gametalktalk, Ludena Protocol has perfect resources, infrastructure, and network to not only develop games but connect the gaming industry as one big unit. As the majority of Ludena Protocol's team members have experience working in the traditional gaming industry, Game development and management is the key strength of Ludena Protocol.

**The Metaverse** - Ludena World is the perfect example of community, blockchain, and games co-existing in the metaverse form. In the Ludena World, users can, with their avatar, go around and find their favorite game "clubhouse" and earn tokens playing games with other players or simply chatting about complicated yet revolutionary Ludena World.

## P2E Game Social Platform - GameTalkTalk

GameTalkTalk Social Network

 P2P Support is much like P2P Services that directly connects parties and users without third-party intermediary, but it is more of providing and overcoming the pressure, information risk-cost, and asymmetries to new users that have to face. Experts and experienced users with supervision and reputation in the platform can provide solutions, guidelines, and information based on gameplay, tokens, or whatever on the platform for incentivisation and benefits with Ludena Protocol.

GameTalkTalk Adoption

1. Ludena aims to leverage user-base including users of game dApps on blockchain platforms from Enjin blockchain network to drive adoption and growth to the Ludena Community

- 2. With more than 3,000,000+ users registered in GameTalkTalk, we aim to bring awareness and opportunities to people who are not familiar with Blockchain and Crypto. GameTalkTalk was originally designed for a centralized basis, even before P2E was invented. With the mass source of P2E and DaPPs available in GameTalkTalk, we expect in terms growth-hack the market.
- 3. With GameTalkTalk Community, we expect the dApps of Ludena will drive continuous user engagement to the community, marketplace and games.

# Sidechain

Adding a sidechain was inevitable due to the scalability issue on the Ethereum network. The Ludena Protocol team decided to work with Enjin, layer 2 mainnet on the Ethereum network. Enjin lets users manage in-game items across many different properties. As a P2E game social platform, Ludena Protocol as Enjin's strategic partner, is planning on using Ethereum-linked sidechain built by Enjin to solve the current blockchain stack built on ERC-20. Bridges between Ethereum, Jumpnet, and Efinity will enable you to easily mint and port tokens onto multiple chains without worrying about gas fees,

Ludena Protocol will work with Enjin to build a wallet for future P2E game incorporation. The wallet will have :

- Fast & seamless transactions with instant confirmation.
- Free to almost no gas fees.
- The ability to withdraw Ludena's game assets back to Ethereum Mainnet.
- Simplified on-boarding for new users, through a customized wallet solution.

# **Staking Pool**

Ludena Protocol has incorporated a staking system in order to reward community members for supporting the long term growth of the platform. Within the platform users will be able to lock up their \$LDN tokens by interacting with our staking contract, and in exchange users will be able to receive \$LDN rewards from a dedicated rewards pool for 5 years from inception.

Ludena Protocol has set aside 25% of the total token supply (300,000,000 \$LDN) tokens to be distributed to users over a period of 6 months at a liner release rate with the released amount being decreased over the total duration, as a mechanism to reward early supporters of the Ludena Protocol platform.

Year	Monthly \$LDN Rewards	Reward per Block
0	7,500,000 LDN / Month	~39 LDN / block
1	6,250,000 LDN / Month	~32 LDN / block
2	5,000,000 LDN / Month	~26 LDN /block
3	3,750,000 LDN / Month	~20 LDN / block
4	2,250,000 LDN / Month	~14 LDN / block
5	1,500,000 LDN / Month	~8 LDN / block

Staking rewards are calculated on a per-block basis depending on the rate and divided to stakers based on their share of the total staking pool.

While user staking rewards are calculated on a per-block basis, user rewards are subject to a 6 month vesting period. Users at any time will be able to claim their rewards by interacting with the staking contract, which will place the current unharvested rewards into a 6 – month (1,155,000 blocks) timelock, in which upon expiration users will be able to call withdraw() to have the \$LDN tokens released into their wallets.

#### **NFT Marketplace**

Ludena Protocol's NFT Marketplace will be where gamers and investors come together. Both parties will trade what they have gathered through Ludena Protocol's P2E ecosystem; whether it is LDN token from staking pool or game NFTs from playing P2E games. NFT Marketplace will sell in-game NFTs such as characters, lands, items of future Ludena games. Each Character NFTs will have unique features with different traits. Holding multiple characters would benefit the player for more game time. Land NFTs are the foundation of the character. Characters can rest in a special land where they belong for quicker game time recharge. Item NFTs will give special power or change useless traits of a character. Items will be given to players by completing quests.

NFT Marketplace will also be the place for minting new NFTs from Ludena Protocol and its users. Ludena Protocol will be launching NFTs regularly including avatars in Ludena's P2E game NFT, Ludena World, original Ludena characters, and Ludena's partners' NFTs, user created art NFT, and etc. Ludena Protocol will reward NFT holders with special in-game NFT items as well as regular LDN token airdrops. Ludena's NFT Marketplace is planning on launching multiple series of NFTs in near future; Ludena's original character NFT, in-game NFT for Ludena's first P2E game that will be launching August of 2022, art and music collections that users have created.

Ultimately, the NFT Marketplace will be traded with LDN tokens in the future. Users who have earned LDN tokens through play-to-earn games, LDN staking, live streaming donation, and a variety of events can use them to buy NFTs for P2E game play, special collection, NFT staking, in-game NFT upgrades, and NFT airdrop.

#### Ludena's P2E Game

Ludena Protocol is planning on launching multiple self-published games one by one. The first P2E game will be launched in August of 2022 featuring real-time battle between NFT characters. Characters are needed in order for players to Play-to-Earn, the more characters a player owns the more play time he/she will get. The game will have breeding functions to upgrade characters in various ways, each function will require LDN tokens but doing so will generate a great amount of profit for players on top of their daily reward in LDN tokens. Additionally there will be items with special powers to win the battle. Items will be acquired by completing daily missions and in-game quests. Characters and Items both can be traded in the NFT Marketplace with LDN Tokens. More information will be released after the official teaser.

#### Roadmap

#### 2020

Q1 : Market research
Q2 : Whitepaper 1.0
Q3 : Token issuance
Q4 : First wallet development,
Multiplayer casual game development

#### 2021

Q1 : GameTalkTalk wallet integration, LDN Token automatic reward payment system development
Q2 : Play-to-Earn community system open, Engine Jumpnet NFT test successful
Q3 : Live Streaming service development including LDN donation, NFT Marketplace Beta version open
Q4 : P2E exclusive wallet development

#### 2022

Q1 : Staking service launch
Q2 : Self-publishing 1st P2E game alpha version Test
Q3 : Accelerated entry into the global market; Southeast Asian,
Self-publishing 1st P2E game open!
Q4 : Self-publishing 2nd P2E game alpha version Beta Test

# **Tokenomics**

Currency Code : LDN

Currency Type : Utility Token

Token Sale Allocation : 390,000,000 LDN

#### Total Supply : **1,200,000,000 LDN**

Purpose	Percentage	Number of Tokens	Lock-Up		
Team	10	120,000,000	- ~5.83% 18 months after listing.(Feb.27th, 2023) - Vesting over 34 months (~5.83% every 2 months).		
Strategic Partnership	7.5	90,000,000	<ul> <li>- 5% 6 months after listing.</li> <li>- Vesting over 38 months (5% every 2 months).</li> </ul>		
Ecosystem	10	120,000,000	- 5.41% upon listing. - Vesting over 5 years.(every 3months. Increasing annually)		
Staking	25	300,000,000	- Locked for 6 months. - Vesting over 5 years.		
Play-to-Earn	15	180,000,000	- Locked: issuance starts in Q3-Q4 2022 - Vesting over 5 years.		
Token Sale	32.5	390,000,000	- 5% upon listing. - Vesting over 15 months (15% every 3 months, 20% last month)		

\* 6 months after listing is February 27th of 2022.

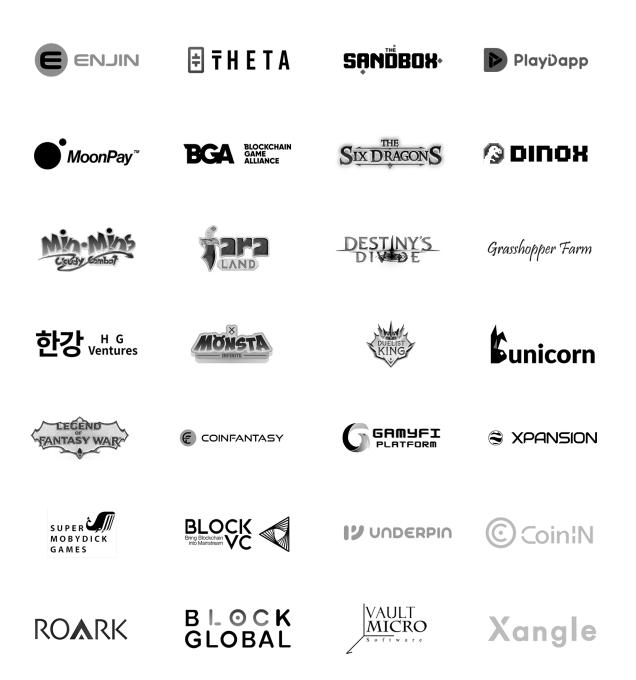
LDN Token can be purchased from many major cryptocurrency exchanges from 2020. Tokens are essential to illustrating and displaying the performance of the platform's value. The total distribution of LDN tokens is 1,200,000,000, and 32.5% of the total, 390,000,000 LDN is distributed into sales. 25% of LDN (300,000,000) will be used to compensate all the investors and contributors that provided liquidity to Ludena's staking pool. 15% of LDN tokens will be allocated to Play-to-Earn gameplay, and be used to secure and reward users for contribution. 10% of LDN tokens are used to enhance and generate the ecosystem. 10% are allocated for core members of Ludena who have dedicated and contributed to the creation of Ludena Protocol. 7.5% will be used for strategic partnership.

# **Release Schedule**

2/27/22         4,500,000         3,100,000         58,500,000         92,100,000         7,66           M+1         92,100,000         7,66         92,100,000         7,66           M+2         4,500,000         96,600,000         8,00           M+3         2,400,000         58,500,000         157,500,000         13,11           M+4         4,500,000         162,000,000         13,50         162,000,000         13,51           M+5          162,000,000         13,51         162,000,000         13,51           M+6         4,500,000         2,400,000         7,500,000         4,500,000         28,40,000           M+7          7,500,000         4,500,000         267,900,000         28,40           M+9         2,400,000         7,500,000         4,500,000         369,300,000         28,40           M+10         4,500,000         7,500,000         4,500,000         369,300,000         29,77           M+11          7,500,000         4,500,000         369,300,000         28,40           M+12         7,000,000         4,500,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000         37,300,000         450,0000 </th <th></th> <th>Team</th> <th>Strategic Partnership</th> <th>Ecosystem Fund</th> <th>Staking Reward</th> <th>Play to Earn</th> <th>Token Sale</th> <th>Total Supply</th> <th></th>		Team	Strategic Partnership	Ecosystem Fund	Staking Reward	Play to Earn	Token Sale	Total Supply	
Image: Period         Strategic Team         Strategic Partnership         Ecosystem Fund         Staking Reward         Play to Ean         Token Sale         Circulating Supply         %           Now         6,500,000         6,500,000         19,500,000         28,600,000         2.1           2/27/22         4,500,000         3,100,000         58,500,000         32,100,000         7,66           M+1         2         4,500,000         22,400,000         19,550,000         32,100,000         7,66           M+2         4,500,000         2,400,000         58,500,000         167,500,000         13,11           M+4         4,500,000         2,400,000         7,500,000         4,500,000         239,400,000         13,51           M+5         1         162,000,000         251,400,000         221,400,000         223,31           M+7         2,400,000         7,500,000         4,500,000         267,900,000         223,31           M+8         4,500,000         7,500,000         4,500,000         367,300,000         28,44           M+10         4,500,000         7,500,000         4,500,000         366,400,000         367,300,000           M+112         7,000,000         4,800,000         7,500,000         4,500,000 <th>Total</th> <th>120,000,000</th> <th>90,000,000</th> <th>120,000,000</th> <th>300,000,000</th> <th>180,000,000</th> <th>390,000,000</th> <th>1,200,000,000</th> <th></th>	Total	120,000,000	90,000,000	120,000,000	300,000,000	180,000,000	390,000,000	1,200,000,000	
Period         Team         Partnership         Fund         Reward         Play to Earn         Sale         Supply         %           Now         6,500,000         19,500,000         26,000,000         21,100,000         26,000,000         21,11           2/27/22         4,500,000         3,100,000         58,500,000         92,100,000         7,60           M+1         2,400,000         19,500,000         157,500,000         157,500,000         13,13           M+4         4,500,000         2,400,000         162,000,000         135,50         162,000,000         13,50           M+5          7,500,000         4,500,000         28,400,000         29,400,000         29,400,000         19,99           M+7          7,500,000         4,500,000         28,400,000         28,400,000         28,400,000         28,400,000         28,400,000         28,400,000         28,400,000         340,800,000         28,400,000         340,800,000         28,400,000         340,800,000         340,800,000         380,300,000         380,300,000         380,300,000         380,300,000         380,300,000         380,300,000         380,300,000         380,300,000         380,300,000         380,300,000         380,300,000         380,300,000         380,300	%	10.00%	7.50%	10.00%	25.00%	15.00%	32.50%	100.00%	
Period         Team         Partneršhip         Fund         Reward         Play to Earn         Sale         Supply         %           Now         6,500,000         19,500,000         26,000,000         21,100,000         26,000,000         21,11           2/27/22         4,500,000         3,100,000         58,500,000         92,100,000         7,60           M+1         2,400,000         1         92,100,000         157,500,000         13,11           M+4         4,500,000         2,400,000         162,000,000         13,51           M+4         4,500,000         2,400,000         7,500,000         4,500,000         239,400,000         13,51           M+5         7         7,500,000         4,500,000         251,400,000         261,900,000         28,400,000         28,400,000         28,400,000         28,400,000         340,800,000         28,400,000         340,800,000         28,400,000         340,800,000         340,800,000         29,71         M+11         7,500,000         4,500,000         365,500,000         340,800,000         38,0           M+41         7,000,000         4,500,000         7,500,000         4,500,000         368,00,000         369,00,000         369,00,000         38,0           M+11									
Period         Team         Partnersing         Fund         Reward         Play to Earn         Suppl         Suppl         2427/22         4,500,000         2,100,000         2,100,000         7,66           M+1             92,100,000         7,66           M+2         4,500,000           96,600,000         8,00           M+3         2,400,000           96,600,000         13,11           M+4         4,500,000           162,000,000         13,55           M+5            162,000,000         13,55           M+6         4,500,000         7,500,000         4,500,000         251,400,000         267,900,000         22,32           M+7          7,500,000         4,500,000         368,500,000         340,800,000         28,44           M+10         4,500,000         7,500,000         4,500,000         368,500,000         369,300,000         30,77           M+11          7,500,000         4,500,000         368,300,000         30,77           M+11          7,500,000         4,500,000         368,400,000         369,300,000		-							%
2/27/22         4,500,000         3,100,000         58,500,000         92,100,000         7,6i           M+1           92,100,000         7,6i           M+2         4,500,000          92,100,000         8,00           M+3         2,400,000          98,600,000         13,11           M+4         4,500,000          162,000,000         13,51           M+5           162,000,000         13,51           M+6         4,500,000         2,400,000         4,500,000         284,00,000         29,400,000           M+7          7,500,000         4,500,000         284,00,000         29,400,000         29,92,93           M+7          7,500,000         4,500,000         261,400,000         29,92,93           M+8         4,500,000         7,500,000         4,500,000         38,90,000         20,73,90,000         28,44           M+10         4,500,000         7,500,000         4,500,000         365,90,000         366,100,000         367,300,000         30,77           M+11          7,500,000         4,500,000         368,00,000         365,00,000         366,00,000         37,730,000         4,500,000		Team	Partnership		Reward	Play to Earn			
M+1         M+1         M+2         A,500,000         F.6.           M+2         4,500,000         M         92,100,000         7.6.           M+3         2,400,000         S8,500,000         157,500,000         13.1.           M+4         4,500,000         162,000,000         162,000,000         13.5.           M+5         1         162,000,000         13.5.         162,000,000         13.5.           M+6         4,500,000         2,400,000         7,500,000         4,500,000         289,400,000         299,90           M+7         7         7,500,000         4,500,000         261,400,000         229,90           M+8         4,500,000         7,500,000         4,500,000         368,500,000         340,800,000         28,40           M+10         4,500,000         7,500,000         4,500,000         368,100,000         369,300,000         369,300,000         37,7300,000         369,300,000         369,300,000         369,300,000         369,300,000         37,90         369,300,000         369,300,000         369,300,000         369,300,000         37,90         369,300,000         369,300,000         369,300,000         36,90,000         369,300,000         369,300,000         369,300,000         369,300,000         36			4 500 000					. ,	2.17%
H+2         4,500,000         532,100,000         7,50           M+3         2,400,000         58,500,000         157,500,000         13,17           M+4         4,500,000         162,000,000         135,57           M+5         1         162,000,000         13,57           M+6         4,500,000         2,400,000         7,500,000         4,500,000         239,400,000           M+7         1         7,500,000         4,500,000         261,400,000         20,99           M+7         2,400,000         7,500,000         4,500,000         267,900,000         28,40           M+9         2,400,000         7,500,000         4,500,000         367,300,000         28,40           M+10         4,500,000         7,500,000         4,500,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000         38,00         340,800,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000         369,300,000			4,300,000	3,100,000			30,300,000		7.68%
M+3         2,400,000         58,500,000         157,500,000         13,13           M+4         4,500,000         1         162,000,000         13,57           M+5          1         162,000,000         13,57           M+6         4,500,000         2,400,000         7,500,000         4,500,000         239,400,000           M+7          7,500,000         4,500,000         251,400,000         20,99           M+7          7,500,000         4,500,000         267,900,000         22,33           M+9         2,400,000         7,500,000         4,500,000         365,300,000         28,44           M+10         4,500,000         7,500,000         4,500,000         369,300,000         29,74           M+11          7,500,000         4,500,000         369,300,000			4 500 000						7.68%
M+4         4,500,000         Instruction         162,000,000         13.50           M+5         Image:			4,500,000	2 400 000			<u> 59 500 000</u>		8.05%
M+5         Interview         Inte			4 500 000	2,400,000			58,500,000		13.13%
M+6         4,500,000         2,400,000         7,500,000         4,500,000         58,500,000         239,400,000         19.33           M+7           7,500,000         4,500,000         239,400,000         20.93           M+8         4,500,000         7,500,000         4,500,000         267,900,000         223,400,000         223,300,000         230			4,500,000					162,000,000	13.50%
M+7         Z35,400,000         Z51,400,000         Z05,400,000         Z05,400,000 <thz05,400,000< th=""> <thz05< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>162,000,000</td><td>13.50%</td></thz05<></thz05,400,000<>								162,000,000	13.50%
M+8         4,500,000         7,500,000         4,500,000         267,900,000         22.33           M+9         2,400,000         7,500,000         4,500,000         58,500,000         340,800,000         28.44           M+10         4,500,000         7,500,000         4,500,000         357,300,000         29.74           M+11         -         7,500,000         4,500,000         369,300,000         30.74           M+11         -         7,500,000         4,500,000         369,300,000         38.0           M+13         -         7,500,000         4,500,000         456,100,000         38.0           M+14         7,000,000         4,500,000         7,500,000         4,500,000         468,100,000         39.0           M+14         7,000,000         4,500,000         7,500,000         4,500,000         468,100,000         468,100,000         468,100,000         468,100,000         468,100,000         468,100,000         468,100,000         468,100,000         468,100,000         468,100,000         468,100,000         468,100,000         468,100,000         468,200,000         586,400,000         586,400,000         586,400,000         586,400,000         586,400,000         586,400,000         586,400,000         586,400,000         586,400,000	_		4,500,000	2,400,000			58,500,000	239,400,000	19.95%
M+9         2,400,000         7,500,000         4,500,000         58,500,000         340,800,000         28,44           M+10         4,500,000         7,500,000         4,500,000         357,300,000         29,74           M+11          7,500,000         4,500,000         369,300,000         369,300,000         369,300,000         369,300,000         38,0           M+12         7,000,000         4,500,000         4,500,000         4,500,000         456,100,000         38,0           M+13           7,500,000         4,500,000         468,100,000         39,0           M+14         7,000,000         4,500,000         7,500,000         4,500,000         468,100,000         39,0           M+15          4,800,000         7,500,000         4,500,000         469,000         58,64,00,000         48,88           M+16         7,000,000         4,500,000         7,500,000         4,500,000         609,900,000         50,83           M+17          7,500,000         4,500,000         621,900,000         54,83           M+18         7,000,000         4,500,000         6,250,000         3,750,000         648,200,000         54,83           M+20         7,000,00								251,400,000	20.95%
M+10         4,500,000         7,500,000         4,500,000         357,300,000         29.74           M+11           7,500,000         4,500,000         369,300,000         30.74           M+12         7,000,000         4,500,000         4,600,000         4,500,000         369,300,000         30.74           M+12         7,000,000         4,500,000         7,500,000         4,500,000         58,500,000         456,100,000         38.0           M+13           7,500,000         4,500,000         468,100,000         39.0           M+14         7,000,000         4,500,000         7,500,000         4,500,000         468,100,000         40.99           M+15          4,800,000         7,500,000         4,500,000         58,6400,000         48.8           M+16         7,000,000         4,500,000         7,500,000         4,500,000         58,6400,000         58,6400,000           M+17           7,500,000         4,500,000         58,200,000         51,83           M+18         7,000,000         4,500,000         6,250,000         3,750,000         621,900,000         54,00           M+19           6,250,000	M+8		4,500,000		7,500,000	4,500,000		267,900,000	22.33%
M+11         7,500,000         4,500,000         4,500,000         369,300,000         30.74           M+12         7,000,000         4,500,000         4,800,000         7,500,000         4,500,000         58,500,000         456,100,000         38.0           M+13         7,000,000         4,500,000         4,500,000         468,100,000         39.0           M+14         7,000,000         4,500,000         7,500,000         4,500,000         468,100,000         39.0           M+15         4,800,000         7,500,000         4,500,000         4500,000         491,600,000         48.8           M+16         7,000,000         4,500,000         7,500,000         4,500,000         586,400,000	M+9			2,400,000	7,500,000	4,500,000	58,500,000	340,800,000	28.40%
M+12         7,000,000         4,500,000         4,800,000         7,500,000         4,500,000         58,500,000         456,100,000         38.0           M+13          7,500,000         4,500,000         4,500,000         468,100,000         39.0           M+14         7,000,000         4,500,000         7,500,000         4,500,000         468,100,000         39.0           M+14         7,000,000         4,500,000         7,500,000         4,500,000         491,600,000         40.9           M+15          4,800,000         7,500,000         4,500,000         78,000,000         48.8           M+16         7,000,000         4,500,000         7,500,000         4,500,000         609,900,000         50.8           M+17           7,500,000         4,500,000         621,900,000         51.8           M+18         7,000,000         4,800,000         6,250,000         3,750,000         648,200,000         54.8           M+20         7,000,000         4,500,000         6,250,000         3,750,000         694,500,000         57.8           M+22         7,000,000         4,500,000         6,250,000         3,750,000         763,500,000         60.57           M+23	M+10		4,500,000		7,500,000	4,500,000		357,300,000	29.78%
M+13         M+13         T,500,000         4,500,000         468,100,000         39.0           M+14         7,000,000         4,500,000         7,500,000         4,500,000         468,100,000         39.0           M+14         7,000,000         4,500,000         7,500,000         4,500,000         491,600,000         40.9           M+15         4,800,000         7,500,000         4,500,000         586,400,000         48.8           M+16         7,000,000         4,500,000         7,500,000         4,500,000         609,900,000         50.8           M+17          7,500,000         4,500,000         621,900,000         51.8           M+18         7,000,000         4,500,000         6,250,000         3,750,000         648,200,000         54.8           M+20         7,000,000         4,500,000         6,250,000         3,750,000         679,700,000         56.6           M+21          4,800,000         6,250,000         3,750,000         694,500,000         57.8           M+22         7,000,000         4,500,000         6,250,000         3,750,000         716,000,000         60.5           M+23          6,250,000         3,750,000         763,500,000         62.7	M+11				7,500,000	4,500,000		369,300,000	30.78%
M+14         7,000,000         4,500,000         7,500,000         4,500,000         491,600,000         40.9           M+14         7,000,000         4,500,000         7,500,000         4,500,000         78,000,000         40.9           M+15          4,800,000         7,500,000         4,500,000         78,000,000         586,400,000         48.8           M+16         7,000,000         4,500,000         7,500,000         4,500,000         609,900,000         50.8           M+17           7,500,000         4,500,000         621,900,000         51.8           M+18         7,000,000         4,500,000         6,250,000         3,750,000         648,200,000         54.00           M+19           6,250,000         3,750,000         679,700,000         56.6           M+20         7,000,000         4,800,000         6,250,000         3,750,000         694,500,000         57.8           M+22         7,000,000         4,500,000         6,250,000         3,750,000         716,000,000         60.57           M+23           6,250,000         3,750,000         763,500,000         62.79           M+24         7,000,000         4,500,0	M+12	7,000,000	4,500,000	4,800,000	7,500,000	4,500,000	58,500,000	456,100,000	38.01%
M+15         4,800,000         7,500,000         4,500,000         78,000,000         586,400,000         48.8           M+16         7,000,000         4,500,000         7,500,000         4,500,000         609,900,000         50.8           M+17           7,500,000         4,500,000         621,900,000         51.8           M+18         7,000,000         4,500,000         6,250,000         3,750,000         648,200,000         54.00           M+19          6,250,000         3,750,000         679,700,000         56.6           M+20         7,000,000         4,500,000         6,250,000         3,750,000         679,700,000         56.6           M+21          4,800,000         6,250,000         3,750,000         694,500,000         57.8           M+22         7,000,000         4,500,000         6,250,000         3,750,000         716,000,000         59.6           M+23           6,250,000         3,750,000         726,000,000         62.7           M+24         7,000,000         4,500,000         6,250,000         3,750,000         763,500,000         62.7           M+24         7,000,000         4,500,000         6,250,000 <td< td=""><td>M+13</td><td></td><td></td><td></td><td>7,500,000</td><td>4,500,000</td><td></td><td>468,100,000</td><td>39.01%</td></td<>	M+13				7,500,000	4,500,000		468,100,000	39.01%
M+16         7,000,000         4,500,000         7,500,000         4,500,000         609,900,000         50.83           M+17           7,500,000         4,500,000         621,900,000         51.83           M+18         7,000,000         4,500,000         6,250,000         3,750,000         648,200,000         54.03           M+19          6,250,000         3,750,000         658,200,000         54.83           M+20         7,000,000         4,500,000         6,250,000         3,750,000         658,200,000         54.83           M+21          4,800,000         6,250,000         3,750,000         694,500,000         57.83           M+22         7,000,000         4,500,000         6,250,000         3,750,000         716,000,000         59.63           M+22         7,000,000         4,500,000         6,250,000         3,750,000         726,000,000         60.51           M+23           6,250,000         3,750,000         763,500,000         63.63           M+24         7,000,000         4,500,000         6,250,000         3,750,000         763,500,000         63.63           M+25           6,250,000         3,750,000	M+14	7,000,000	4,500,000		7,500,000	4,500,000		491,600,000	40.97%
M+17         7,500,000         4,500,000         621,900,000         51.83           M+18         7,000,000         4,500,000         6,250,000         3,750,000         648,200,000         54.02           M+19         6,250,000         3,750,000         658,200,000         54.83           M+20         7,000,000         4,500,000         6,250,000         3,750,000         679,700,000         54.62           M+21         4,800,000         6,250,000         3,750,000         694,500,000         56.64           M+22         7,000,000         4,500,000         6,250,000         3,750,000         694,500,000         57.84           M+23         6,250,000         3,750,000         716,000,000         59.65           M+23         6,250,000         3,750,000         716,000,000         60.55           M+24         7,000,000         4,500,000         6,250,000         3,750,000         753,500,000         62.79           M+25         6,250,000         3,750,000         763,500,000         63.63           M+26         7,000,000         4,500,000         6,250,000         3,750,000         785,000,000         65.43           M+27         6,000,000         6,250,000         3,750,000         801,00	M+15			4,800,000	7,500,000	4,500,000	78,000,000	586,400,000	48.87%
M+17         M         7,500,000         4,500,000         621,900,000         51.83           M+18         7,000,000         4,500,000         4,800,000         6,250,000         3,750,000         648,200,000         54.03           M+19         6,250,000         3,750,000         658,200,000         54.83           M+20         7,000,000         4,500,000         6,250,000         3,750,000         679,700,000         56.64           M+21         4,800,000         6,250,000         3,750,000         694,500,000         57.83           M+22         7,000,000         4,500,000         6,250,000         3,750,000         694,500,000         59.66           M+23         6,250,000         3,750,000         716,000,000         59.66           M+24         7,000,000         4,500,000         6,250,000         3,750,000         726,000,000         60.59           M+23         6,250,000         3,750,000         753,500,000         62.79         62,250,000         3,750,000         763,500,000         62.79           M+25         6,250,000         3,750,000         763,500,000         62.79         62,250,000         3,750,000         763,500,000         63.63           M+26         7,000,000         4	M+16	7,000,000	4,500,000		7,500,000	4,500,000		609,900,000	50.83%
M+18         7,000,000         4,500,000         4,800,000         6,250,000         3,750,000         648,200,000         54.00           M+19          6,250,000         3,750,000         658,200,000         54.89           M+20         7,000,000         4,500,000         6,250,000         3,750,000         679,700,000         56.64           M+21          4,800,000         6,250,000         3,750,000         694,500,000         57.89           M+22         7,000,000         4,500,000         6,250,000         3,750,000         716,000,000         59.69           M+23          6,250,000         3,750,000         726,000,000         60.59           M+24         7,000,000         4,500,000         6,250,000         3,750,000         763,500,000         62.79           M+23           6,250,000         3,750,000         763,500,000         62.79           M+24         7,000,000         4,500,000         6,000,000         6,250,000         3,750,000         763,500,000         63.63           M+25           6,250,000         3,750,000         785,000,000         65.42           M+26         7,000,000         4,500,000	M+17				7,500,000	4,500,000			51.83%
M+19         6,250,000         3,750,000         658,200,000         54.89           M+20         7,000,000         4,500,000         6,250,000         3,750,000         679,700,000         56.64           M+21         4,800,000         6,250,000         3,750,000         694,500,000         57.84           M+22         7,000,000         4,500,000         6,250,000         3,750,000         716,000,000         59.66           M+23         6,250,000         3,750,000         716,000,000         59.66           M+24         7,000,000         4,500,000         6,250,000         3,750,000         726,000,000         60.59           M+24         7,000,000         4,500,000         6,250,000         3,750,000         763,500,000         62.79           M+25         6,250,000         3,750,000         763,500,000         63.63           M+26         7,000,000         4,500,000         6,250,000         3,750,000         785,000,000         65.42           M+27         6,000,000         6,250,000         3,750,000         801,000,000         66.79	M+18	7,000,000	4,500,000	4,800,000	6,250,000	3,750,000			54.02%
M+20         7,000,000         4,500,000         6,250,000         3,750,000         679,700,000         56.64           M+21         4,800,000         6,250,000         3,750,000         694,500,000         57.84           M+22         7,000,000         4,500,000         6,250,000         3,750,000         716,000,000         59.6           M+23         6,250,000         3,750,000         726,000,000         60.54           M+24         7,000,000         4,500,000         6,250,000         3,750,000         726,000,000         60.54           M+24         7,000,000         4,500,000         6,250,000         3,750,000         753,500,000         62.79           M+25         6,250,000         3,750,000         763,500,000         63.63           M+26         7,000,000         4,500,000         6,250,000         3,750,000         785,000,000         65.44           M+26         7,000,000         4,500,000         6,250,000         3,750,000         801,000,000         66.79           M+27         6,000,000         6,250,000         3,750,000         801,000,000         66.79	M+19				6,250,000	3,750,000			54.85%
M+21         4,800,000         6,250,000         3,750,000         694,500,000         57.88           M+22         7,000,000         4,500,000         6,250,000         3,750,000         716,000,000         59.67           M+23         6,250,000         3,750,000         726,000,000         60.56           M+24         7,000,000         4,500,000         6,250,000         3,750,000         726,000,000         60.56           M+24         7,000,000         4,500,000         6,000,000         6,250,000         3,750,000         753,500,000         62.79           M+25         6,250,000         3,750,000         763,500,000         63.63           M+26         7,000,000         4,500,000         6,250,000         3,750,000         785,000,000         65.42           M+27         6,000,000         6,250,000         3,750,000         801,000,000         66.79	M+20	7,000,000	4,500,000		6,250,000	3,750,000			56.64%
M+22         7,000,000         4,500,000         6,250,000         3,750,000         716,000,000         59.6           M+23         6,250,000         3,750,000         726,000,000         60.50           M+24         7,000,000         4,500,000         6,000,000         6,250,000         3,750,000         726,000,000         60.50           M+24         7,000,000         4,500,000         6,000,000         6,250,000         3,750,000         763,500,000         62.79           M+25         6,250,000         3,750,000         763,500,000         63.65           M+26         7,000,000         4,500,000         6,250,000         3,750,000         785,000,000         65.42           M+27         6,000,000         6,250,000         3,750,000         801,000,000         66.79	M+21			4,800,000	6,250,000	3,750,000			57.88%
M+23         6,250,000         3,750,000         726,000,000         60.50           M+24         7,000,000         4,500,000         6,000,000         6,250,000         3,750,000         753,500,000         62.79           M+25         6,250,000         3,750,000         763,500,000         63.63           M+26         7,000,000         4,500,000         6,250,000         3,750,000         785,000,000         63.63           M+26         7,000,000         4,500,000         6,250,000         3,750,000         785,000,000         65.44           M+27         6,000,000         6,250,000         3,750,000         801,000,000         66.79	M+22	7,000,000	4,500,000		6,250,000	3,750,000			59.67%
M+24         7,000,000         4,500,000         6,000,000         6,250,000         3,750,000         753,500,000         62.79           M+25         6,250,000         3,750,000         763,500,000         63.65           M+26         7,000,000         4,500,000         6,250,000         3,750,000         763,500,000         63.65           M+26         7,000,000         4,500,000         6,250,000         3,750,000         785,000,000         65.42           M+27         6,000,000         6,250,000         3,750,000         801,000,000         66.79	M+23				6,250,000	3,750,000			60.50%
M+25         6,250,000         3,750,000         763,500,000         63.65           M+26         7,000,000         4,500,000         6,250,000         3,750,000         785,000,000         65.42           M+27         6,000,000         6,250,000         3,750,000         801,000,000         66.75	M+24	7,000,000	4,500,000	6,000,000	6,250,000	3,750,000			62.79%
M+26         7,000,000         4,500,000         6,250,000         3,750,000         785,000,000         65.42           M+27         6,000,000         6,250,000         3,750,000         801,000,000         66.75	M+25				6,250,000	3,750,000			63.63%
M+27         6,000,000         6,250,000         3,750,000         801,000,000         66.75	M+26	7,000,000	4,500,000						65.42%
				6,000,000					66.75%
M+28 7,000,000 4,500,000 6,250,000 3,750,000 822,500,000 68.54	M+28	7,000,000	4,500,000	, ,,	6,250,000	3,750,000			68.54%

M+29				6,250,000	3,750,000		832,500,000	69.38%
M+30	7,000,000	4,500,000	6,000,000	5,000,000	3,000,000		858,000,000	71.50%
M+31				5,000,000	3,000,000		866,000,000	72.17%
M+32	7,000,000	4,500,000		5,000,000	3,000,000		885,500,000	73.79%
M+33			6,000,000	5,000,000	3,000,000		899,500,000	74.96%
M+34	7,000,000	4,500,000		5,000,000	3,000,000		919,000,000	76.58%
M+35				5,000,000	3,000,000		927,000,000	77.25%
M+36	7,000,000	4,500,000	6,000,000	5,000,000	3,000,000		952,500,000	79.38%
M+37				5,000,000	3,000,000		960,500,000	80.04%
M+38	7,000,000	4,500,000		5,000,000	3,000,000		980,000,000	81.67%
M+39			6,000,000	5,000,000	3,000,000		994,000,000	82.83%
M+40	7,000,000			5,000,000	3,000,000		1,009,000,000	84.08%
M+41				5,000,000	3,000,000		1,017,000,000	84.75%
M+42	7,000,000		6,000,000	3,750,000	2,250,000		1,036,000,000	86.33%
M+43				3,750,000	2,250,000		1,042,000,000	86.83%
M+44	7,000,000			3,750,000	2,250,000		1,055,000,000	87.92%
M+45			6,000,000	3,750,000	2,250,000		1,067,000,000	88.92%
M+46	1,000,000			3,750,000	2,250,000		1,074,000,000	89.50%
M+47				3,750,000	2,250,000		1,080,000,000	90.00%
M+48			6,000,000	3,750,000	2,250,000		1,092,000,000	91.00%
M+49				3,750,000	2,250,000		1,098,000,000	91.50%
M+50				3,750,000	2,250,000		1,104,000,000	92.00%
M+51			6,000,000	3,750,000	2,250,000		1,116,000,000	93.00%
M+52				3,750,000	2,250,000		1,122,000,000	93.50%
M+53				3,750,000	2,250,000		1,128,000,000	94.00%
M+54			6,000,000	2,500,000	1,500,000		1,138,000,000	94.83%
M+55				2,500,000	1,500,000		1,142,000,000	95.17%
M+56				2,500,000	1,500,000		1,146,000,000	95.50%
M+57			6,000,000	2,500,000	1,500,000		1,156,000,000	96.33%
M+58				2,500,000	1,500,000		1,160,000,000	96.67%
M+59				2,500,000	1,500,000		1,164,000,000	97.00%
M+60			6,000,000	2,500,000	1,500,000		1,174,000,000	97.83%
M+61				2,500,000	1,500,000		1,178,000,000	98.17%
M+62				2,500,000	1,500,000		1,182,000,000	98.50%
M+63			6,000,000	2,500,000	1,500,000		1,192,000,000	99.33%
M+64				2,500,000	1,500,000		1,196,000,000	99.67%
M+65				2,500,000	1,500,000		1,200,000,000	100.00%
	120,000,000	90,000,000	120,000,000	300,000,000	180,000,000	390,000,000		

**Partners** 



## **Core Team**









Joshua Kim CEO

**Kenneth Lee COO** 

Mathew Kim СТО

**Peter Kim** CFO

## **Advisors**



**Jack Lee** 



Simon Jeung NCSoft Team Leader HG Ventures Co-Founder





DongKyun Kim SangRyul Choi

CEO of Dayamonz

CEO of Tinrobot

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This whitepaper is for general information purposes only in relation to the Ludena Protocol project and the information herein is current as of the date on the cover page. This whitepaper is a continuous work in progress and subject to review and revision. We reserve the right to update the whitepaper at any time.

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