

2021

# DEFI 2.0 Explorer



## IN THE NEAR FUTURE,

Kepler planet will be the next most habitable planet in the universe;

Digital currency will be the highest liquidity medium of exchange;

Decentralized Finance will be the best framework for digital finance;

KeplerSwap will be the best platform for DeFi.

# 1. PREFACE

Earth is the only irreplaceable planet known for human existence. Throughout civilization, humans have inflicted irreversible damage to planet Earth. Humans have faced environment disasters created by themselves. After nine years of collecting deep space data from the Kepler Mission, researchers have discovered many planets outside our solar system that are suitable for human living and named it after Kepler.



Similarly, many modern business environments are fully centralized and filled with inequalities. The modern financial system is exemplified by capitalists using their anti-competitive power with centralization. Less competition will disadvantage the mass population. While not able to fulfill our desire for living in the next planet, we can start building a new craft or system to chase our dreams.

In 2008, Satoshi Nakamoto published a whitepaper<sup>1</sup> that created bitcoin cryptocurrency using blockchain technology. His idea of decentralization, based on cryptographic proofs of peer-to-peer electronic cash exchange has created new ways of conducting business and finance. Bitcoin is censorship resistant, unstoppable and used an immutable ledger with a consensus mechanism on the blockchain. The rate of adoption of cryptocurrencies has continued to reach a phenomenal rise. Bitcoin has opened a new form and distribution model for the digital currency exchanges. Bitcoin is the iconic digital currency that has inspired many other cryptocurrencies. It has generated tremendous inertia to transform the traditional financial system. In summary, cryptocurrency is the best form of currency for mankind.

[1] "Bitcoin: Peer to Peer Electronic Cash System" , Satoshi Nakamoto  
<https://bitcoin.org/bitcoin.pdf>

In 2020, the issuance of sovereign digital currency has created a rapid development of the decentralized financial technology globally. It is expected that traditional finance will evolve alongside in a decentralized model using blockchain technology. Decentralized finance ( ‘DeFi’ ) will add immeasurable value that sovereign digital currency has created. Overall, DeFi is the best concept of financial instrument for mankind.

Kepler technology is rolling out DeFi version 2.0. It will be built to handle large scale and unprecedented decentralized financial system needs. It will be a newly designed DeFi platform that has fairer and reliable method of participation. Together, we are building a new decentralized financial world.

This paper is a brief description of DeFi and the value systems of Kepler technology.

## 2. Decentralized Finance<sup>2</sup> (DeFi)

### Our vision

To achieve, build and implement a large-scale DeFi application platform to support economic activities using blockchain technology. Our vision is to continuously innovate and build upon our team's success and achievements from the initial creation of KEPLER.

### 2.1 DeFi 1.0

DeFi is narrowly defined as the exchange of financial transactions and services by using digital currency (or token) between participants. For example, investment transaction, insurance service, loan and payment service are all using DeFi platform that is based on solid token technology. Among the DeFi suite of products and services, the Ethereum cryptocurrency platform is the major provider.

At a higher level, DeFi is a platform where financial products are available to everyone on an open public decentralized blockchain network. It avoids additional fees charged by a middleman like banks or brokerages. This has implications namely:

- Transactions are made directly between participants by using a set of smart contracts<sup>3</sup>.
- DeFi services provided by cryptocurrency exchanges are not decentralized but it uses a digital asset as collateral.

Traditional financial businesses can be upgraded to use blockchain technology to harness decentralized finance concepts. It can also be a brand new financial business transacting cryptocurrencies that are included with other financial activities.

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[2] Concepts on Decentralized Finance

[https://en.wikipedia.org/wiki/Decentralized\\_finance](https://en.wikipedia.org/wiki/Decentralized_finance)

[3] Smart contracts are programmable logic running on computers

[https://en.wikipedia.org/wiki/Smart\\_contract](https://en.wikipedia.org/wiki/Smart_contract)

With increasing active global adoption, the use of blockchain technology is becoming common. At the same time, the use of DeFi has gained momentum with the promotion of blockchain technology. DeFi development is now at version 1.0 and it has limitations. We are now seeing the arrival of version 2.0 of DeFi development.



Loan



Exchange



Payment



Insurance

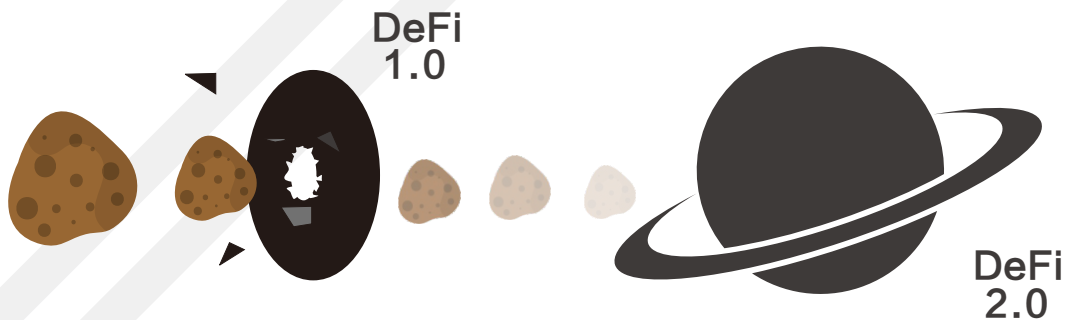


Investment

## 2.2 DeFi 2.0

Currently most DeFi projects are related to token issuance and their purpose is to increase the minting of tokens. These projects have not generated new innovation to cryptocurrency, distribution and community management. It began with rolling out mining infrastructure by participants and became unsustainable. Users do not participate in community governance. From the lack of governance, most miners are focused on highly reward tokens at the early stage. It has negatively impacted the DeFi development and liquidity of the platform. Kepler Technical Team has a vision to overcome this current dilemma by establishing a sustainable cross-chain decentralized finance system under DeFi 2.0.

DeFi 2.0 is to connect all members who can provide liquidity to the community. It uses liquidity rewards as an access point and binding the rewards with future user's transaction. It aims at providing a standard user interface, sustainable and decentralized financial framework. The ice-breaking journey of DeFi 2.0 is a state of art financial governance innovation.



DeFi 2.0 ecosystem built by KeplerSwap will be feature rich compared to DeFi 1.0. They are:

※ KeplerSwap focuses on setting up an easy to use interactive transaction model and making the user-to-user connection pleasurable. All members will identify themselves with the ecosystem to form sticky and strong horizontal and vertical bonds in their experiences. It will create a highly accessible and active trading platform for KeplerSwap users.

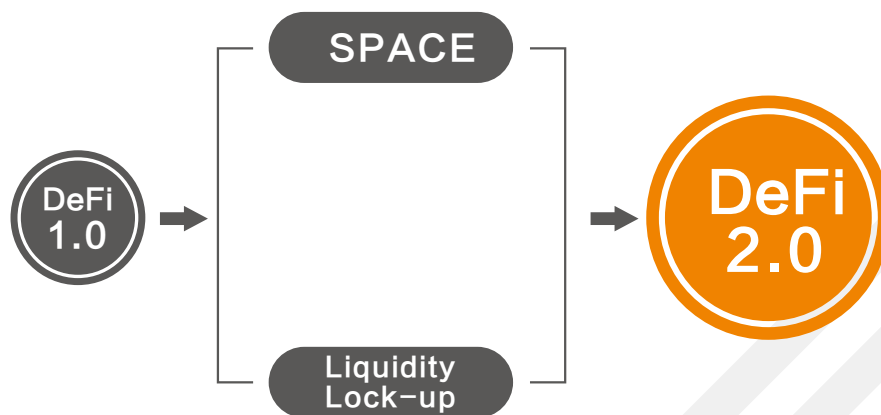
※ KeplerSwap offers a weekly **Jumbo Lucky Pool** to incentivize outstanding liquidity pool providers. It helps to maintain an interest for user liquidity contribution.

※ KeplerSwap offers **Space Contribution Award** to reward outstanding Space Owners. A space owner is defined as a market maker that creates an amount of liquidity to the system. Members are polled for outstanding Space Owners. The prize is accumulated from a 30-days liquidity contribution pool. At the adoption stage, KeplerSwap will grant full governance and decision-making right to the community members. Making poll function highly available to the members is the first step towards decentralized governance.

※ The founding team will delegate the governance right and decision-making power to community members as soon as possible. When all decisions are jointly made by members, a decentralized governance model is formed. Motivated members will have an interest to participate in community activities to achieve a better outcome in platform development. All members are stakeholders of the community.

※ KeplerSwap provides a sophisticated and open cross-chain platform for DeFi services only. By realizing this technology innovation, technologist and influencers can tap into this blossoming greenfield project for countless innovative DeFi project ideas.

DeFi 2.0 will be major improvement from DeFi 1.0. By encouraging user engagement, it will shift the focus from just reaping mining rewards to building a sustainable platform for long term liquidity contribution. This is the future of DeFi 2.0.





## 3. KeplerSwap

### 3.1 Introduction

Announced on 5 December 2011, Kepler-22b<sup>4</sup>, is the first planet discovered in the habitable zone where liquid water exists on the planet's surface. Natalie Batalha<sup>5</sup> has speculated,

*"If it is mostly ocean with a small rocky core, it's not beyond the realm of possibility that life could exist in such an ocean".*

This possibility has spurred the search for extraterrestrial intelligence<sup>6</sup> ( 'SETI' ) on top candidates for extraterrestrial life.

KeplerSwap is a professional decentralized trading platform that is built on blockchain technology. Under a Decentralized Market Agreement<sup>7</sup>, it provides participants with a comprehensive solution to identity security, asset security and autonomous trading on a combination of blockchains.

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[4] First planet discovered in the habitable zone by NASA Kepler Mission  
[https://www.nasa.gov/mission\\_pages/kepler/news/kepscicon-briefing.html](https://www.nasa.gov/mission_pages/kepler/news/kepscicon-briefing.html)

[5] Natalie Batalha works closely with a research team to identify viable planets from data captured by Kepler Mission  
[https://en.wikipedia.org/wiki/Natalie\\_Batalha](https://en.wikipedia.org/wiki/Natalie_Batalha)

[6] SETI - [https://en.wikipedia.org/wiki/Search\\_for\\_extraterrestrial\\_intelligence](https://en.wikipedia.org/wiki/Search_for_extraterrestrial_intelligence)

[7] Decentralize Market Agreement is a contract between market participants and DeFi trading platform provider.



## 3.2 Kepler Structure

### 3.2.1 Decentralized Exchange Protocol

At the initiation stage, KeplerSwap provides a decentralized exchange protocol running on EOS<sup>8</sup> public blockchain. Market participants can trade and place EOS-related assets on the platform. After a period of successful commissioning, KeplerSwap will introduce more decentralized exchange protocols to interoperate with other public blockchains by using multi-chain and cross-chain aggregation features. At the final stage, KeplerSwap will make further improvements to the technical support for DeFi development on public blockchains and, specifying the underlying technical standards for interoperability for public blockchains. The aim is to excel in DeFi technology development and financial innovation for the future of DeFi 2.0.

The basic conversion formula uses a classical constant value model ' $xy = k$ '. By applying this formula, the product of two currencies transfer ('x' and 'y') in the liquidity pool is always kept at a constant value 'k'. When a user exchanges one token for another, one currency in the liquidity pool will increase while other currency decreases. As a result, 'x' coin will increase in value with a reduced market supply, and 'y' coin will decrease in value with an increased coin market supply, the prices of the coin will be fully regulated by the market.

All exchange rules are implemented using smart contracts. It will guarantee openness and transparency of prices. When the price of a currency changes in other markets, the incentive effect of the market causes users to spontaneously adjust the price of the currency to the real market price through transactions, which fundamentally avoid the possibility of negotiation.

We define the following variables:

- reserve0: currency number 1 in the liquidity pool
- reserve1: currency number 2 in the liquidity pool
- amount0: the amount of exchange currency paid by the user
- amount1: the amount of exchange currency that the user gets

[8] EOS public blockchain <https://en.wikipedia.org/wiki/EOS.IO>

Using the constant value formula:

$$\text{reserve0} * \text{reserve1} = (\text{reserve0} + \text{amount0}) * (\text{reserve1} - \text{amount1})$$

Then, the amount of exchange currency that the user gets is:

$$\text{amount1} = \text{reserve1} * \text{amount0} / (\text{reserve0} + \text{amount0})$$

The actual price of the user's redemption is:

$$\text{price} = \text{reserve1} / (\text{reserve0} + \text{amount0})$$

And the actual price is:

$$\text{price}' = \text{reserve1} / \text{reserve0}$$

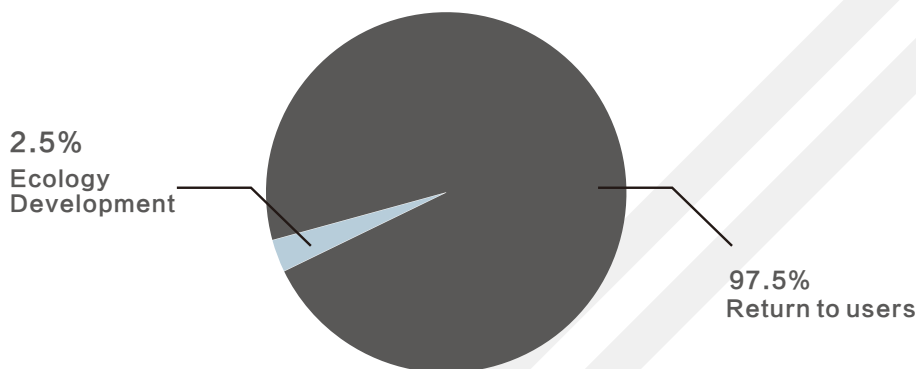
The deviation (slippage) of the actual price is:

$$\text{slippage} = \text{amount0} / (\text{reserve0} + \text{amount0})$$

The amount0 is the user's exchange amount and reserve0 is the total amount of currency in the market. When the amount of change is much less than the total amount of the market, the slip is infinitely close to 0, that is, the price that the user receives is basically equal to the real price in the market.

### 3.2.2 Transaction Fee

Transaction fee will be charged on cryptocurrency exchange. Unlike many Decentralized Platform, KeplerSwap returns a large proportion of transaction fee to the users. Using the trading pair EOS/SDS as an example, 97.5% fees generated from trading SDS in the EOS exchange will be returned to users and the remainder 2.5% will be used for ecological development.



Pie: Total transaction fee from exchange

### 3.2.3 Liquidity Pools ( “LP” )

In terms of global financial trading, public interest in DeFi activities have increased. The main driving factor can be attributed to "liquidity withdrawal" which is a mechanism used to initiate liquidity. From a financial transaction perspective, "liquidity mining" refers to the process in which DeFi users exchange assets with a certain deal and obtain the original deal token as a reward. KeplerSwap will support the on-chain implementation of the DeFi protocol. As more people contribute to the liquidity of the mining pool, it will help the development of the entire ecosystem.

The stability of KeplerSwap platform is measured by the amount of funds available on the platform. When the platform has more funds, it is more reliable and stable. When the market liquidity is sufficiently stable, users can enjoy the convenience of a swap trading platform similarly used in a centralized and efficient exchange environment, while benefiting from the openness and transparency of the decentralized platform.

The governance and rules of the market relies on the set of smart contracts. Everyone can increase the liquidity of the market, inject funds into the liquidity pool, and enjoy the high rewards provided by the platform.

When users add funds to the liquidity pool, it is called liquidity market making. Market-making users must provide funds according to a certain proportion to ensure that the product of constant value increases by multiples after making the contribution. However, the proportion of the two currencies in the group will not change. The market creation activities by the user will only increase the stability of the market. It cannot be changed and users are unable to make slight adjustments to the price of the currency. The price of the coin is fully adjusted automatically by the market.

Assuming that the amounts of the two currencies in the current liquidity pool are  $reserve_0$  and  $reserve_1$  respectively, the amount of the two currencies invested by the user in market making are  $amount_0$  and  $amount_1$  respectively, then according to the following rules:

$$\text{amount0} / \text{amount1} = \text{reserve0} / \text{reserve1}$$

If the user provides more quantity0 or quantity1, any excess portion will be automatically returned to the user. The rights of users are guaranteed and the rules of the market are maintained by smart contracts. Once the liquidity market is completed, the user will obtain the LP bonus. With this bonus the user can recover the capital from the liquidity market at any time. The platform will not retain the user's capital, charge handling fees, or use it for other purposes. The number of LPs obtained by users is determined entirely by the ratio of the user's market-making funds to the total market funds.

Assuming that the user's investment is amount0 and amount1, the total market capital is reserve0 and reserve1 and the total number of LPs in the current market is total LP, then the number of LPs available to the user is:

$$\text{LP} = \min(\text{amount0} * \text{total LP} / \text{reserve0}, \text{amount1} * \text{total LP} / \text{reserve1})$$

Due to the demand and supply, market currency prices can change. The main value obtained when the user cancels the market making will not change, but the number of coins changes resulting in the number of high-value coins decreases; and, the number of low-value coins increases. This is the free nature of market making.

The amount of capital received by the user through the exchange of LP is:

- $\text{quantity0} = \text{LP} * \text{reserve0} / \text{total LP}$
- $\text{quantity1} = \text{LP} * \text{reserve1} / \text{total LP}$

KeplerSwap is targeting more people to participate in the joint construction of the platform and will achieve greater achievements in the cause of decentralized finance DeFi 2.0. Liquidity is the key business driver that KeplerSwap can provide to users at the initiation stage. It is also the business function that is the most important to users. KeplerSwap can provide the original design of the decentralized financial model. The platform encourages users to provide transaction depth and liquidity support for token interaction, and to reap the corresponding benefits.

Kepler hopes to achieve the following goals:

- ※ Distribute transaction fees to users that provide liquidity and market making activities to encourage long-term rigid liquid funds.
- ※ Encourage users to expand horizontal link voluntarily and protect advantaged assets.
- ※ Not engage in token distribution in the form of ICOs and achieve decentralized governance of the platform.

KeplerSwap expects that each user will bring a certain amount of liquidity and actively participate in the creation of market liquidity. Based on the principle of equity, KeplerSwap can offer participants in liquidity market making activities with a choice of portfolios from the following options:

- ※ Option to participate in the creation of liquid market but no collateral assets, the weighted coefficient of liquidity market creation is level 1
- ※ Option to participate in liquidity market creation and collateral assets locked up for 30 days, the liquidity market creation weighted coefficient is level 2
- ※ Option to participate in liquidity market creation and collateral assets locked up for 90 days, the liquidity market creation weighted coefficient is level 3
- ※ Option to participate in liquidity market creation and collateral assets locked up for 360 days, the liquidity market creation weighted coefficient is level 4

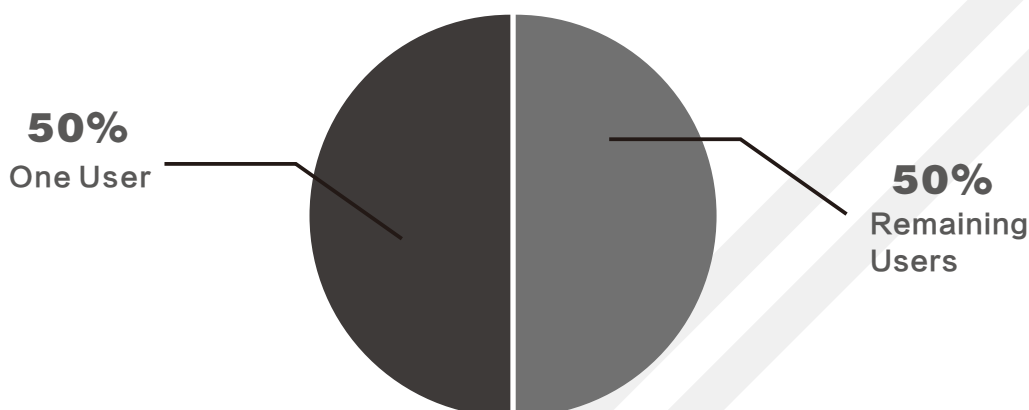
Users who participate in the creation of the liquidity market will receive part of the user's transaction fees. The revenue received by each user who

creates the marketplace is determined by the user's transaction fees, their blocking share and the total participation. Users can withdraw their profits at any time; or, lapses in liquidity market making after lock-up period ends; or, provide funds for market making and lock-up their collateral for any period. Revenue acquisition is done entirely by smart contracts without external human intervention. This ensures the equity of income distribution. Those who contribute the most to market stability will get the most benefits.

### 3.2.4 Jumbo Lucky Pool

Jumbo Lucky Pool is provided to incentivize active liquidity providers. Entry requirements are given as follows:

- ※ Top X% in liquidity market making contribution from weekly additional referrals / Top Y% in liquidity providers.
- ※ Users who fulfill the entry requirements have one and only chance to redeem the reward in that week.
- ※ Bonus allotment: Only one lucky qualified user will get the 50% bonus from the pool and the remaining balance of 50% bonus will be allotted to remaining qualified users.



※ Qualified users will be required to redeem the reward within 72 hours. If the reward is not redeemed, it will roll back to the pool for next week.

※ Above processes are generated by smart contract, fully disclosed and efficiently provisioned.

Running formula as below:

A smart contract will select a random number of users. Fifty percent (50%) bonus from the pool is allotted to one user and the remaining 50% is allotted to users equally as follow:

One user who gain 50% bonus:

- Select the hash of the latest transaction and the hash of the first transaction;
- Run the first 64 bits and the last 64 bits of hash, to get num1;
- Run the first 32 bits and the last 32 bits of num1, to get num2;
- Run the first 16 bits and the last 16 bits of num2, to get num3;
- Do a modulus on num3 and total number of users who satisfied the requirements to get an actual position of one user;
- The resultant user is the only achiever who gain 50% from the Pool.

The remaining users who gain the balance of 50%:

- Take num3 and the middle 8 bits of the first hash and the middle 8 bits of the last hash as a factor to generate a random number;
- Use the random number to find a number of diverse positions;
- Then remaining users will share the remaining 50% bonus equally.

### 3.2.5 Horizontal Ecosystem

In order to maintain a sustainable environment for KeplerSwap, new users are required to obtain invitation from existing users. While all invitation relationships are permanently linked, revenues created by the invitee are associated with the inviter.



Based on the relationship, the invitee has to conduct the first trade of assets exchange through the inviter in order to create a horizontal ecosystem. The inviter is then able to gain associated revenue as below:

- ※ Direct referral trading bonus will be distributed in tokens.
- ※ When invitee's liquidity market making volume stands in Top Ranking position, the inviter will be granted to enter the Jumbo Lucky Pool.
- ※ Inviter can gain a portion of liquidity market making revenue from his invitees.

### 3.2.6 Vertical Ecosystem

Users are able to invite more people to participate in community advocacy in order to collectively provide more support for development. SPACE is a term used in the KeplerSwap environment to improve vertical relationship between users, expand user rights and realize community autonomy. Through SPACE, all members are dedicated to promote decentralized autonomy. The following are SPACE features:

- ※ **SPACE Creation.** If a user has contributed in liquidity market making efforts; or, has referred other users to contribute in liquidity market making while meeting certain requirements, the user is able to submit a SPACE creation application. Once the application is approved, the user is entitled to be the SPACE Owner.
- ※ **SPACE Voting.** Each token holder is granted a right to vote in a SPACE election. Every user has to enter one SPACE. Once users have successfully entered into the SPACE, it cannot be changed. User can vote for SPACE.
- ※ **SPACE Interests.** SPACE Owner is granted to gain all rewards related to liquidity market making from his SPACE members. If the SPACE Owner wins in the SPACE Voting, the owner may gain an extra reward from contribution pool.

※ **Vote Counting.** Voting period consists of 7 days, the first 5–days is for members voting, the last 2–days is for vote counting. All tokens used for voting will be returned to users in the following week.

※ **Vote Withdrawal.** During the voting period, the voting token will take effect immediately and no voted token can be withdrawn from the pool.



The number of votes for a user is based on the user's assets, which is equivalent to the balance of the token plus the number of collateral token locked in liquidity participation. At the beginning of each voting period, a snapshot of the user's current balance and the number of positions blocked will be taken. Therefore, the amount of assets belonging to the users is equal to the number of votes they owned. After the snapshot, the user's available token and locked value will not be affected and the number of votes owned by users will remain the same. Until the next round of voting begins, the votes of the users are recalculated according to the established rules.

Top 10 SPACE Owners who obtain the most of votes can proportionally share the rewards according to their votes. If the number of votes is the same, it will be compared according to the user's locked up collateral value, and if the value is also the same, it will be compared in chronological order of the user's account statement. The reward gained by the user can be redeemed at any time. This will ensure that the more active the users are in the SPACE, more rewards are given.

The SPACE is the cornerstone of ecological development. Active SPACE users have more decision-making power. They can provide better say on construction and market development direction. Consequently, users across the ecosystem will also reap greater benefits. The rules for the entire vertical relationship are fully implemented by smart contracts. The process is open and transparent and there is no risk impacting the ecology of the market.

### 3.2.7 Mainstream Coins Exchange

KeplerSwap supports many types of cryptocurrencies transactions.

While KeplerSwap can maintain users stability in the operating environment, it will offer some popular cryptocurrency pairs such as BTC, ETH, LTC by utilizing multi-chain and cross-chain support for multi-currencies assets on mainstream public blockchain.

**Multi-Chain:** KeplerSwap will explore multi-chain approach and integration to multiple public blockchains in order to achieve "multi-chain parallelization" with the core of Kepler products. After evaluating and determining the feasibility of the multi-chain solutions, it is possible to have different access protocols to the most suitable smart chain depending on the available technology. Currently, the KeplerSwap platform has been tested on the EOS chain, and through multi-chain work, KeplerSwap can connect to more public blockchains.

**Cross-Chain:** KeplerSwap will determine a protocol agreement with independent public blockchain like Bitcoin, Ethereum, Binance and others. It will allow operations between different blockchains in setting up a multi-chain assets exchange network. It will extract value of other blockchains and can provide fundamental technology improvements to support DeFi applications.

### 3.2.8 Platform Token

In future, KeplerSwap will launch a token based platform on the Kepler ecosystem. The platform currency will be used for governance and complement other rights and interests of users in the KeplerSwap ecosystem. It can also be used to deduct platform fees; as a bond guarantee; or, deposit; and, participate in governance. The platform token launch will enhance the KeplerSwap trading platform.

Once the KeplerSwap platform currency is released, all liquid market-making income can be issued in the form of platform based currency. The timing and delivery of the platform token is determined by joint community voting, and will be the first DeFi platform to achieve true decentralized autonomy in community governance.

### 3.2.9 Decentralized Loan

Loan is a common product in the financial industry. Usually, users can use a collateral such as cash deposits to borrow money. Home loans have always been considered relatively safe financial loans. Once the borrower is unable to pay the debt, financial institutions can sell the underlying loan asset and confiscate the deposit to recover the loan.

On KeplerSwap DeFi 2.0, all loan services are provided with an efficient, smarter and frictionless user experience. KeplerSwap supports multi-currency smart home loans. Users can borrow the corresponding currency in proportion based on their needs and amount of available funds used as collateral.

KeplerSwap uses smart contracts as a "guarantor" to assess asset prices and borrower risks. The creditor decides whether or not to lend to the borrower based on the credit assessment provided by the "guarantor". When the borrower cannot repay the loan on time, the "guarantor" can automatically execute the bad loan settlement process. In processing the loan application, the funds of the lender are blocked during the loan period and only after complying loan conditions are met by the borrower, does the fund begin to accrue interest.

KeplerSwap will also support services such as futures transactions. The trader can borrow funds using the platform margin loan agreement with the lender to perform margin operations.

### 3.2.10 Open Technology & Innovation

KeplerSwap aims to make the DeFi 2.0 explorer platform available to the most open and innovative decentralized environment. KeplerSwap will attract global geeks to jointly start technological innovations and bring greater ideas to decentralized finance.

Based on a decentralized on-chain transaction method, anyone can access KeplerSwap DeFi platform. No one has central control rights thus making decentralized governance a reality. There is no need to trust pseudo-decentralized institutions in future. All trusts are built into machines and smart contract codes. Blockchain protocols are technically open source. Anyone can contribute to the protocol to make new financial products and KeplerSwap usage will gain momentum under the network effect from technology innovation.

In future, community technology enthusiasts and global geeks will be invited to jointly develop an underlying public blockchain that is more suitable for DeFi platform, promote DeFi technology innovation, and ground breaking possibilities for the development of DeFi 2.0.

### 3.2.11 Open Finance & Innovation

KeplerSwap vision is to develop a completely open decentralized market making protocol. It is going to be a decentralized multi-chain and cross-chain financial platform based on public blockchains. It has the following open features:

※KeplerSwap completely open to everyone. Based on the invitation system, all users can join the DeFi 2.0 platform building and jointly create a true decentralized governance community. Users can freely participate in transactions without registering.

- ※ After the listing request is opened on the KeplerSwap platform, the community will complete all qualification checks for the new project. Through voting, community members will decide if the project can be operational on KeplerSwap.
- ※ At the initial stage of KeplerSwap development, the Kepler Foundation will provide the required technical and operational support. The founding team members will step back and withdraw from the governance of the project once user self governance is achieved. It will hand over the technology research and development, expansion of functions and decision to operate the platform by the community to achieve full decentralized governance.
- ※ KeplerSwap aims to establish a wide-opened financial innovation platform. All members have equal opportunity to propose financial planning and direction for the platform. Through community poll, all members can accomplish financial reform together.

## 4. Seeds Token (SDS)

4.1 SDS is the native token issued by KeplerSwap. SDS is also key to achieve decentralization and autonomy in KeplerSwap.

### 4.2 Token Distribution

KeplerSwap has planned to issue a total token supply of 210,000,000 SDS. 90% SDS are generated from mining; 5% SDS are reserved for marketing and business cooperation; and 5% SDS are reserved for private placement. No SDS will be reserved by KeplerSwap.

At the early setup stage, KeplerSwap has designed a good disposal mechanism. SDS will be reduced to 21,000,000 due to trading activities. For each SDS sales transaction, there are 1% SDS of the trading amount will be written off instantly.

### 4.3 SDS Valuation & Application

#### 4.3.1 Governance Token

As the initial token holder on KeplerSwap, each SDS holder owns a voting right in the community governance and decision-making for important events. Every SDS holder can introduce a proposal to change the community policy. Examples include system construction proposal, voting for your community, managing transaction fee, community policy-making and more.

#### 4.3.2 Transaction Fee Allocation

SDS token is the first underlying asset on KeplerSwap, 100% mining output will be reallocated to Kepler members as follows:

##### 1. Exchange between EOS and SDS:

When user purchases SDS with EOS, 2% of EOS is charged as transaction fee. The 2% of EOS will be reallocated under the following items:

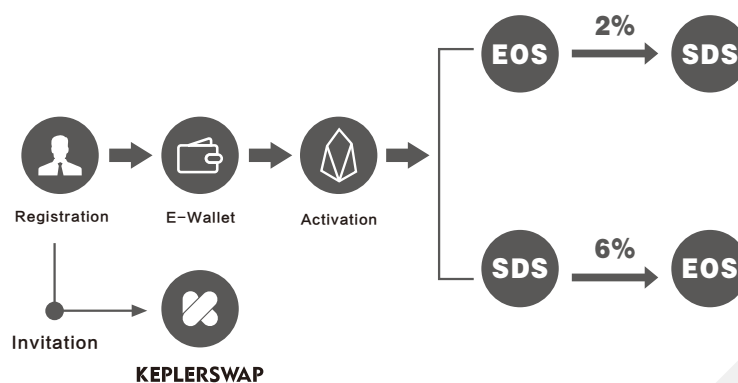
- Liquidity market making 1.3%
- Lucky pool 0.3%
- Referral reward 0.3%
- Kepler Foundation 0.1%

## 2. Exchange between SDS and EOS:

When user sells SDS for EOS, 2% of SDS is charged as transaction fee. Then, 6% of SDS will be reallocated under the following items:

- Strike off 1%
- Monthly Lucky Draw 1%
- Liquidity market making revenue 3%
- Jumbo Lucky Pool 0.6%
- Referral reward 0.3%
- Kepler Foundation 0.1%

Referrer can claim 10% of liquidity market making revenue from referee. Space Owner can claim 1% of liquidity market making revenue from every space members.



### 4.3.3 Liquidity Market Making

SDS is the major output token for liquidity market making on KeplerSwap platform. Every member is encouraged to contribute in liquidity market making by incentivization. Based on fairness principle, KeplerSwap proposes different liquidity market making plans to users. They have the flexibility to set a self-service market making contribution as follows:



- Contribute in liquidity market making and value unlocked, weighted 0.3;
  - Contribute in liquidity market making and value locked for 30 days, weighted 1;
  - Contribute in liquidity market making and value locked for 90 days, weighted 1.5;
  - Contribute in liquidity market making and value locked for 360 days, weighted 3;
- ※ Each user has one and only chance to lock value for a 3-day liquidity market making, weighted 3.

LOCK-UP PERIOD	→	WEIGHTED COEFFICIENT	LEVEL
Unlocked	→	0.3	1
Locked for 30 days	→	1	2
Locked for 90 days	→	1.5	3
Locked for 360 days	→	3	4

#### 4.3.4 Jumbo Lucky Pool

KeplerSwap will reserve SDS and EOS as reward tokens for Jumbo Lucky Pool. It may encourage users to provide more liquidity. Entry requirements for Jumbo Lucky Pool are as follows:

※ Weekly Top 30% Referrals / Weekly Top 30% Liquidity Provider

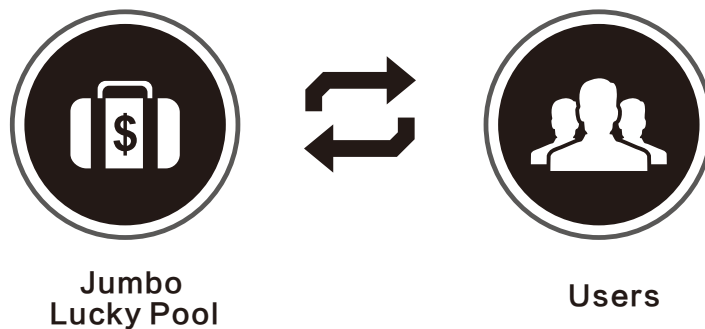
※ Reward Allotment: Only 1 achiever gets 50% from the Pool, and the rest 50% is allotted to 10 achievers equally.

### Logic of lucky draw:

A smart contract is used to select eleven (11) users randomly who satisfies the entry requirements. 50% of tokens from Jumbo Lucky Pool is allotted to one (1) user; and, the remaining 50% share of the draw are equally allotted to ten (10) users.

### Only one (1) user who wins 50% token pool:

- Select the hash of the latest transaction and the hash of the first transaction;
- Run the first 64 bits and the last 64 bits of hash, to get num1;
- Run the first 32 bits and the last 32 bits of num1, to get num2;
- Run the first 16 bits and the last 16 bits of num2, to get num3;
- Do a modulus on num3 and total number of users who satisfied the requirements to get an actual position of one user;
- The resultant user is the only achiever who gain 50% from the Pool.



### Another ten (10) users who wins the remaining 50% token pool:

- Take num3 and the middle 8 bits of the first hash and the middle 8 bits of the last hash as a factor to generate a random number;
- Use the random number to find 10 diverse positions;
- Then 10 users will share the remaining 50% token pool equally.

#### 4.3.5 Ecological medium token

SDS is the exchange medium on KeplerSwap. It has high liquidity and is able to be exchanged with other tokens on KeplerSwap.



#### 4.3.6 Smart Aggregation

User has the flexibility to choose a list of cryptocurrency pairs in liquidity market making. By using a smart aggregating system on the liquidity pool, it will select the subject pair automatically in order to achieve the maximum return.



#### 4.3.7 Space Creation & Voting

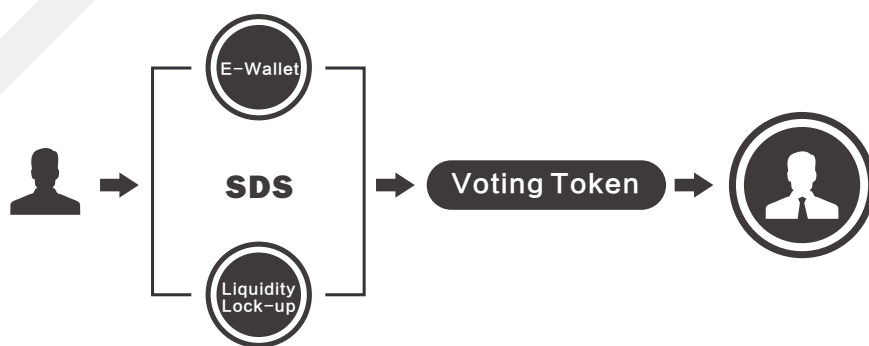
Under the following conditions that the user, who is a) SDS holder; b) a liquidity provider (value locked for 12 months) on KeplerSwap; and, c) who has successfully invited a required amount of new users, will be available to create SPACE and become the Space Owner. A SDS holder who joins the Space is granted to vote in the Space.

#### 4.3.8 Airdrop

Interests offerings of new project tokens are granted to users who holds SDS in stock; or, has provided liquidity contribution on KeplerSwap.

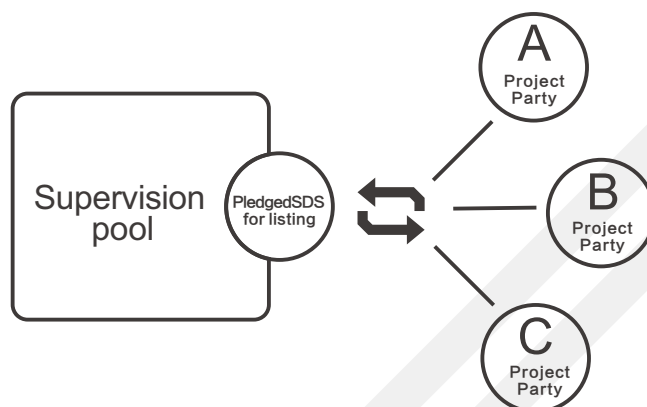
#### 4.3.9 Interests Conversion

After the issuance of platform token, a SDS holder and liquidity provider is able to gain the interests of platform token by 1:100 (Note: This is not a Token Exchange).

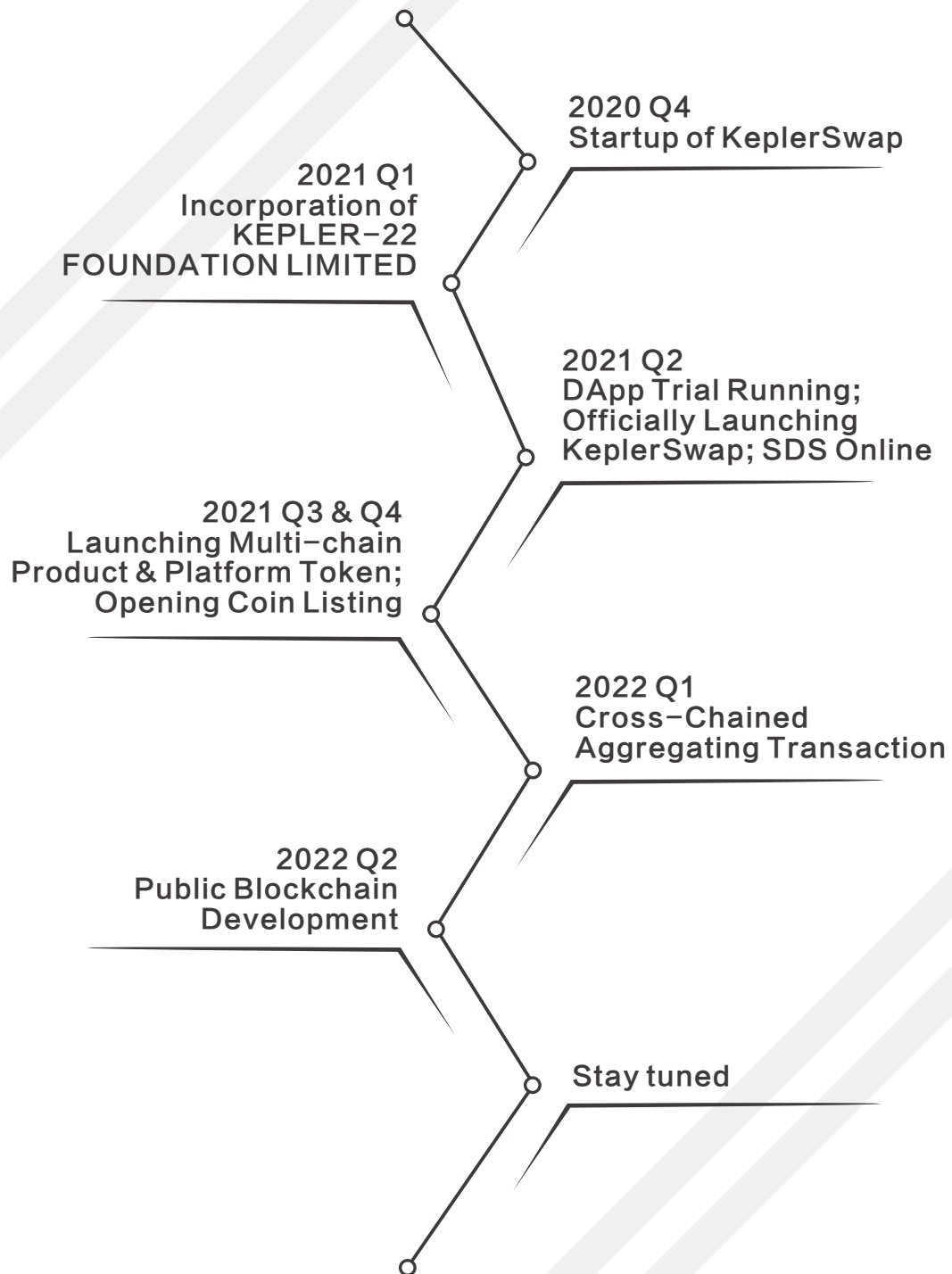


#### 4.3.10 Token Pledged for Coin Listing

Using KeplerSwap, the project party has to pledge a certain amount of SDS to the supervision pool when the project go live. In order to protect the rights and interests of users, when the token price drops to a certain agreed price, the smart contract will automatically allocate the pledged SDS to the user who holds the pledged token according to holding percentage.



## 5. Timeline



\*The above estimated timeline will be adjusted and sticked to SPACE voting results.

## 6. Kepler Foundation

### 6.1 Kepler-22 Foundation Limited

KEPLER-22 FOUNDATION LIMITED (aka Kepler Foundation) is a Not-for-profit Company incorporated and domiciled in the State of Colorado, USA. The address of its registered office is 1630 Welton Street, Suite 201, Denver, CO 80202, United States. Kepler Foundation as the angel investor of Kepler Swap, provides early stage start-up capital and technical support.

### 6.2 The Board of Directors

Jena Griswold is the founder of Kepler Foundation. The board of directors are formed by former top management from Fortune 500 companies including Goldman Sachs, Citi, Morgan Stanley, HSBC, UBS, NOMURA.



Certificate of Registration

Membership Certificate

#### Twitter

<https://twitter.com/keplerswap>

#### Telegram

<https://t.me/KeplerSwap>

#### Medium

<https://medium.com/@KeplerSwap>

#### YouTube

<https://www.youtube.com/channel/UCKLhng7agUQ4AYIvS4cZopg>

#### GitHub

<https://github.com/keplerswap>

#### Kepler Foundation

<http://keplerswap.io>

## 7. Blessings



THE SEED WE PLANTED IN KEPLER WILL ONE DAY  
FLOURISH TO BE A THRIVING PLANET.