



Construct a token incentive ecosystem

based on quantitative rating for cryptocurrency investors

Vesion 0.7.0

Last Update: 2018/7/6

RatingChain Foundation Ltd

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1. Introduction and Significance of DPRating

1.1. Industry Background and Pain points

In November 2008, the mysterious Satoshi Nakamoto published the founding paper "Bitcoin: A Peer-to-Peer Electronic Cash System", which announced the advent of cryptocurrency. In January 2009, the Bitcoin creation block was born, and at the same time the early concept of the blockchain came into being. In 2014, blockchain technology gradually emerged as the underlying bedrock for Bitcoin, and its research and application presented an explosive growth trend. It is considered as the fifth disruptive innovation of computing paradigm after mainframes, personal computers, internet and mobile/social networks, and has the potential to reshape human economic and social development.

Blockchain, as a technology that accompanies cryptocurrency, has gone through three stages so far:

1. Blockchain 1.0 is characterized by a programmable cryptocurrency system, represented by Bitcoin and Litecoin;

2. Blockchain 2.0 is characterized by a programmable financial system and is dedicated to providing blockchain support for the Internet industry and the software industry, represented by Ethereum;

3. Blockchain 3.0 features a programmable society that surpasses monetary and financial sectors, and it is committed to the integration of real economy and industry, represented by EOS. However, this stage is taking shape at this moment.

Unlike the pure cryptocurrency items that were only applicable to payment or stored value methods in the early stage, various types of projects that followed were born with specific application scenarios such as digital banking, payment gateways, network security, supply chain, and insurance, etc.

The objectives of these projects are not only to surpass bitcoin in terms of transaction rate, security and accessibility, but also to be based on technologies such as smart contracts, to address issues that were previously unsolvable in the financial sector, or to go beyond cryptoeconomics to solve problems in the real economy.

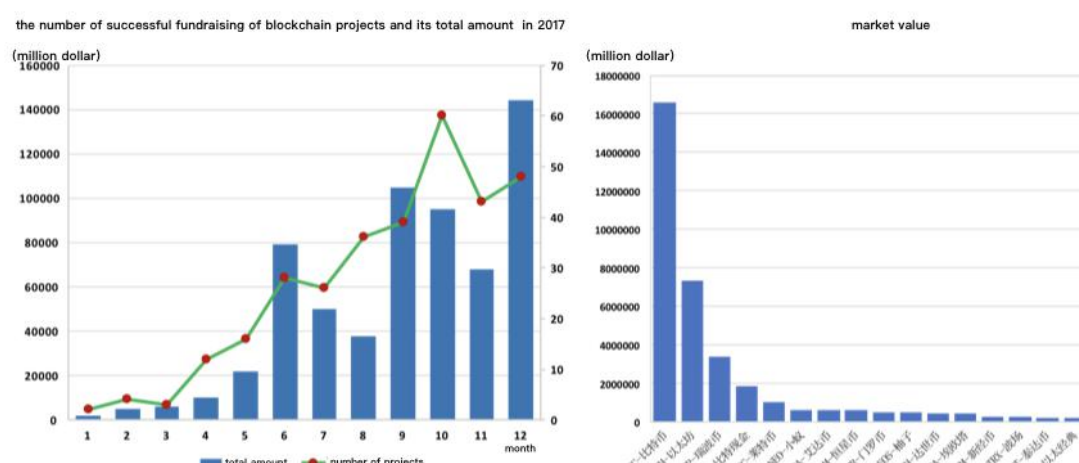


Figure 1. Blockchain project industry data and cryptocurrency market liquidity

Blockchain technology has brought about thriving development momentum for the cryptocurrency investment market. In the past year or two, a variety of blockchain solutions have contributed to the growth of the overall cryptocurrency scale. Different types of projects use different technologies and architectures for different areas, making various

types of cryptocurrency vary widely, and they are of varying quality. The difference between these cryptocurrencies and Ethereum has far exceeded the difference between Bitcoin and its replicas before 2014.

As a natural cryptocurrency with investable attributes, the booming development of blockchain technology has directly made cryptocurrency investment a new industry. Some of the currencies used for hot scenes are really popular. For example, the IoT project represented by IOTA has increased by tens of thousands of times in the past three years, which has greatly stimulated the nerves of investors; also, since the first half of 2017, many projects, including Qtum and GXS, increased by several tens of times after opened up, making cryptocurrency investment a global carnival. These examples directly reflect the rapid prosperity of the cryptocurrency investment market.

From the perspective of specific data, we can easily notice the activity of the market. The left side of Figure 1 shows the number of successful ICO) and its total amount in 2017 from January to December, which shows its rapid growth; the figure above shows some important figures in the current cryptocurrency market. The the market cap based on circulating supply, for example, BTC has exceeded 160 billion US dollars, and Ethereum, which is ranked second, has also exceeded 70 billion US dollars.

The market is so vibrant but it is so disturbing as well. After all, in essence there are a lot of obvious problems in the cryptocurrency investment market. With the continuous promotion and value creation of blockchain technology, huge risks go hand by hand. On the whole, the market trend is extremely uncertain, with fluctuations of more than 40% per day, and specific cryptocurrency prices can often experience astonishing increase several times in a few days or decrease dramatically in a row. This shows that the entire industry is still in an extremely early stage, it is prevailing that large shareholders reshuffle the shares to make money from ordinary investors. The problems are not unique to this market. In fact, these problems and pain points are particularly serious at the beginning of each emerging market. The information asymmetry brought about by the immature market makes investors who lack effective information often become the biggest loser of profits.

From the perspective of investors protection, many pain points in the current industry can be summarized as follows:

- Investors cannot understand the technical principles, difficulty, feasibility, level of innovation, and actual demand of the blockchain project. As a result, they are unable to assess the potentiality of the project and face difficulties in investment;
- Investors lack the ability to identify the authenticity and superior or inferior of the information disclosed by the project and social media, and are often influenced by the hype surrounding;
- A large number of project parties have devoted their energy to marketing and hype, but neglected the development of the project for a long time. The industry lacks an effective third party to audit and disclose the performance and landing status of the project;
- The project party often maliciously raises far more funds than required. The use of funds in later operations of the project is very opaque. That being said, the industry lacks an effective third party to audit and disclose the budget and financial status of the project party.

In particular, in the process of investment in the cryptocurrency market, the market still has the following obvious pain points:

- The cryptocurrency investment market is in stark contrast to the securities and bond investment markets. Investment in cryptocurrency is relatively similar to angel investment. Since cryptocurrency projects are often in their infancy, and the actual business progress is in the planning stage, and revenue and profits are out of reach, Moody', Standard&Poor's and other ratings on bond assets and securities cannot be applied to the industry;

- Project partners often work with major shareholder, analysts or the media to conduct joint hype. If they want to manually intervene in the market and raise the price of coins to earn profits, investors will be at their mercy;
- Some big-Vs(famous verified internet users) often give subjective evaluations of specific projects based on their own interests. As a result, the evaluation is unreasonable, because it is done purely for their own interests and investors will be easily deceived;
- It is difficult for investors to effectively perceive the overall market, and often make misjudgments due to partial good or bad situation, therefore losses are severe;
- It is difficult for investors to make multi-dimensional comparisons of many potential investment projects at the same time in the investment process, and therefore it is impossible for them to make optimal choices.

To sum up, there are four major pain points in the cryptocurrency industry:



Figure 2. Four major pain points in the cryptocurrency industry

It can be seen that the current cryptocurrency market is actually a huge investment market that lacks rationality, information asymmetry, or standards. Under such circumstances, it is both imperative and meaningful for third parties to implement, disclose, rate, and supervise service agencies to lubricate and regulate the market, and protect consumers as well.

1.2. What is DPRating

■ Introduction

DPRating is based on the huge, chaotic and mixed cryptocurrency market and focuses on providing a cryptocurrency investor ecosystem that is fair, independent, scientific, objective and based on rating services. Since its establishment in May 2017, DPRating has been adhering to professional, independent, scientific and objective consensus, and committed to providing transparent and fair quantitative analysis reports for the crypto asset market. We have publicly released the embryo and growth rating models together with nearly a hundred in-depth rating reports. At the same time, we have also published the Github audit reports and a number of exchange rankings.

DPRating concentrates on quantified ratings and provides a wide range of services including due diligence, index, Github audit, financial audit, fulfillment audit, ranking, and in-depth investigation of hot issues. Meanwhile, it is committed to building cryptocurrency investment service ecosystem supported by the industry's big data platform, and it includes all the above services.



Figure 3. DPRating Core Business Structure

■ Opportunities and challenges

Due to the lack of third-party rating and oversight service agencies in the industry, the market is extremely irregular and chaotic. The cryptocurrency quantitative rating service is still a virgin land and has almost unlimited value and room for future development.

DPRating has become the world's leading cryptocurrency rating agency with its keen insight and advanced practical actions. Its professional rating service ecosystem will become and stay as a must for the market in the long run. It will not only protect the interests of investors to the greatest extent, but also make its due contribution to improving the investment environment and setting up market standards.

■ Vision and Goals

Under the premise of existing business as the core, DPRating aims at building a closed-loop rating service community ecosystem based on the industry-wide big data platform, including investors, intermediary agencies and project parties.

However, it is not easy to accomplish the construction of community ecology and merely talking about decentralization without action is not practical. We believe that based on the current status of the industry and the existing socio-economic and humanities organizations, decentralized rating agencies can only be castles in the air. DPRating's plan is to build core modules in the ecosystem first through strong centralization, and then gradually shift to less centralization. Through the introduction of community strength, rating and other services will be accessible to the community's high-quality members and eventually form a less centralized rating service ecology.

Based on the above discussion, the DPRating project is initiated by the RatingChain Foundation, and DPRating represents the first phase of the project. In the second phase, a less centralized rating community, also known as the RatingChain community, will be realized.

1.3. Why Cryptocurrency Investment Market Needs DPRating

1.3.1. Significance for the Industry and Investors

■ Significance for the Cryptocurrency Industry

As the cryptocurrency market has just started and thus lacks standardization, professional, authoritative cryptocurrency quantitative rating is necessary to regulate market

standards, prevent market risks, maintain market fairness, fairness and integrity and supervise its benign development. What is more, it will stand for the market-access assessment of blockchain projects. DPRating will play an important role in promoting the market's healthy development.

■ Significances for Investors

First, given the different investment values of various cryptocurrencies, DPRating will provide investors with comprehensive, objective, fair, neutral and professional market information, investment rating services, as well as necessary investment guidance in order to solve their problems in the process of investment.

Second, it is known that ordinary investors do not have the ability to identify market risks or to decide whether the project solves a real problem. In addition, the behavior of harvesting by major shareholders prevails. Therefore, all the above will do great harm to investors' interests. Based on first-hand market data and a dedicated team, DPRating conducts a thorough adjustment, audit, and follow-up rating on each project to discover high-quality projects, and to expose false and substandard projects so that the rights and interests of investors are maximally protected.

1.3.2. Advantages Over Traditional Rating Agencies

Traditional rating agencies are unable to shoulder the heavy responsibility of the cryptocurrency market because of their own limitations and business differences.

In the traditional financial industry, there are three most internationally recognized credit rating agencies, namely Moody's, Standard & Poor's, and Fitch. However, these traditional rating giants can not solve the problems faced by the cryptocurrency industry.

The main reason is that the actual situation of the cryptocurrency industry is different from the traditional one. The characteristics of the blockchain project are that most of them are in the early stage of the lifecycle, and basically have no revenue, the team is small in scale, the division of labor is vague, and its business is often in the conception stage.

More importantly, blockchain projects are generally heavily associated with blockchain technology. Their mission is often to fill in the weaknesses of the blockchain ecosystem, or to solve problems in traditional industries based on the new possibilities brought by blockchain technology. Therefore, it is imperative that the rating agencies themselves have the extensive knowledge and profound understanding of the frontier blockchain technology.

Therefore, the traditional mainstream rating companies's rating mode which is based on a company's financial and business models, industry analysis, and national policy can't be applied to the cryptocurrency industry.

Unlike traditional financial rating agencies, DPRating's quantified rating service ecosystem is deeply rooted in the cryptocurrency world. It is an ingenious combination of the original ecological blockchain technology team and the business model based on quantified rating. It not only has a high level of technical expertise but also possesses traditional industry analysis methods. We focus on providing rating services that are compatible with the various characteristics of cryptocurrencies and therefore have inherent advantages that cannot be matched by traditional rating agencies.

1.3.3. Advantages Over Other Cryptocurrency Investment Exchange Platforms

In cryptocurrency market, of course there are other investment exchange platforms. However, in these platforms, it is often some opinion leaders and influencers who dominate the investments. In terms of technical expertise and the credibility of the ratings, DPRating's

rating service ecosystem has obvious advantages as follows:

■ Professionalism

In terms of professionalism, the DPRating analyst team relies on a comprehensive industrial big data platform, utilizes professional data tracking, analysis, and analysis techniques to make a more scientific and reasonable prediction of the market. Its professionalism and technical ability can be guaranteed. Therefore, the technical threshold and scientificity in the DPRating ecology are much higher than opinion leaders and big-Vs, due to the fact that the latter rarely has such professional qualities.

■ Independence

DPRating is going to make use of good ecological governance mechanisms to effectively prevent moral hazard and eliminate benefit relationship, thereby guaranteeing the independence of rating analysis results and the credibility of rating services. This is clearly not the case for well-known big-Vs or other KOLs who play their own personal roles.

■ Completeness

DPRating is more professional, scientific and independent, thus it can provide more meaningful services. Quantitative ratings, due diligence, fulfillment tracking, Github audit, rankings, and other services around the cryptocurrency market have jointly built a well-rounded investment environment for investors. Therefore, DPRating's completeness is also unmatched by other cryptocurrency investment and exchange platforms.

2. DPRating Solution

2.1. Due Diligence

Due diligence has significant implications for investment decisions in blockchain projects. Detailed and accurate due diligence help investors understand the situation of the project parties and reduce the problems arising from the insufficient information between the two parties. Therefore, due diligence is necessary to evaluate the investability of a project. Its importance is unquestionable. This has been fully proven in the stock market.

Considering that the cryptocurrency market is in a shortage of standards and rules, there are no standardized ICO processes and thresholds in the industry, which are temporarily not properly monitored by the state. Therefore, individual investment and institutional investment in the blockchain industry are confronted with a lot of risks. For example, deceptions of the background information of the entrepreneurial team or exaggerated development progress, misappropriation of funds, false propaganda, etc.

The essence of due diligence is risk management. The purpose is to make investors understand as much as possible the full extent of the project that needs to be invested. Therefore due diligence seems to be even more important and urgent in the cryptocurrency investment industry.

However, taking into account that the industry is still at its early stage, most project teams have only a few members, the company's legal structure is relatively simple, and the business is basically in an unexploited status, the due diligence reports on some projects are relatively simple and the significance of the independent publication of those reports is not prominent. Therefore, after DPRating has completed its due diligence on specific projects,

the best-effort report will be interspersed with the final quantified rating and will be evaluated from the following aspects:

- Team member disclosure
- Project tokens financing
- Distribution of project tokens
- Project progress report
- Roadmap disclosure
- Project code base update

As the industry matures, the due diligence investigation will soon become independent and deepening. It will become a distinctive supporting business and will continue to serve investors and project owners.

2.2. Audit

2.2.1. Github Audit

Since the blockchain project is closely related to technology, the DPRating rating team pays particular attention to the iteration rate, quality, number of active developers, codebase popularity and the type of submission while tracking development health and team execution of the assessed project.

Normally, most projects have multiple code bases. Therefore, we will try to select the core codebase that best represents the project. The selection of the core codebase varies slightly when it comes to different types of the project.

For projects with main chain (such as public chains, alliance chains, etc.), the main chain will unconditionally become our target of investigation. However, for some application-type projects with no main chain, we will try our best to pick out the core business codebase and make sure it is included in our investigation.

Currently, the DPRating team has covered hundreds of projects that domestic and foreign investors pay attention to, and has released the code rankings for October, November, December of 2017, January and February of 2018.

The release of the code ranking contributes to some project parties' change of their attitude. Some of the projects that previously claimed that they had no main chain to be updated began to update the iterative main chain. Others once claimed that the code does not require open source projects announced open source one by one in recent months,

The Github audit of the DPRating team has, to a certain extent, made the development process of blockchain projects more open and transparent.

2.2.2. Performance Follow-up Audit

Because most of the blockchain projects are under development, landing, or commercial promotion, the project often plans a large number of milestone nodes in the white paper. These nodes are also the promises during project financing. Completing the commitment reflects the team's ability to execute, credit, and the project's acceptance in the commercial market.

Current performance follow-up audits are included in the DPRating investability rating business and serve as a very important dimension in rating.

2.2.3. Financial Audit

Based on project rating experience and data accumulation, the DPRating team will soon launch a project-based financial auditing business, which will include the use of funds, cost expenditure, profit distribution, etc. into the scope of financial audits to determine the project's financial health.

At present, due to the imperfections of various rules, financial auditing is more suitable for project parties that have already generated stable earnings and business models or regularly publish financial reports. For project parties that are still in the initial stage and do not have molded products, in addition to the traditional way of monitoring assets, liabilities, profit and loss, other methods can also be adopted. For example, in conjunction with the financing budget of the project's ICO, we will implement regular audits and supervision of the actual budget usage and lock-in status.

DPRating welcomes individuals, organizations, project parties or community members to voluntarily join the ecosystem to provide and disclose relevant codes, schedules, and fund usage, and to build a large data platform of the industry.

At the same time, DPRating will establish a strict punishment mechanism to eliminate this phenomenon that project parties or community members provide false data or false audit reports for their own benefits.



Figure 4. Three Major Audits of DPRating—Code, Performance Follow-up and Finance

2.3. Quantitative Rating

Quantitative rating is the core business of the DPRating rating team. Almost all of our current businesses are centered around quantitative rating. According to the cycle of different blockchain projects, the current DPRating core rating model includes three different models: embryo version, growth version, and mature version. In the future, models for different industry categories will be introduced, which will be applicable to specific categories project rating.

2.3.1. Quantitative Model

The DPRating quantitative rating model differs significantly from models used by Moody's or Standard & Poor's for rating bond assets and derivative securities. As mentioned before in this article, the bond or securities derivative market and the cryptocurrency market are of great difference in reality. The latter model does not provide much reference to us. DPRating team is based on the profound understanding of the origin and status of the industry, and rigorous, scientific thinking. We adhere to the principle of quantitative

inspection, and have introduced a unique model for cryptocurrency project rating. The data on which the rating is based all come from publicly verifiable data or information disclosed by the project party. In the design of the rating model, we discard those data dimensions that are difficult to quantify or may introduce personal opinions. We insist on using only real, objective and easily quantifiable data components, so as to avoid subjective factors which may exert influence upon the rating results.

I.the model categories and dimensions examined

DPRating Embryo Version V1.0 Rating Model:

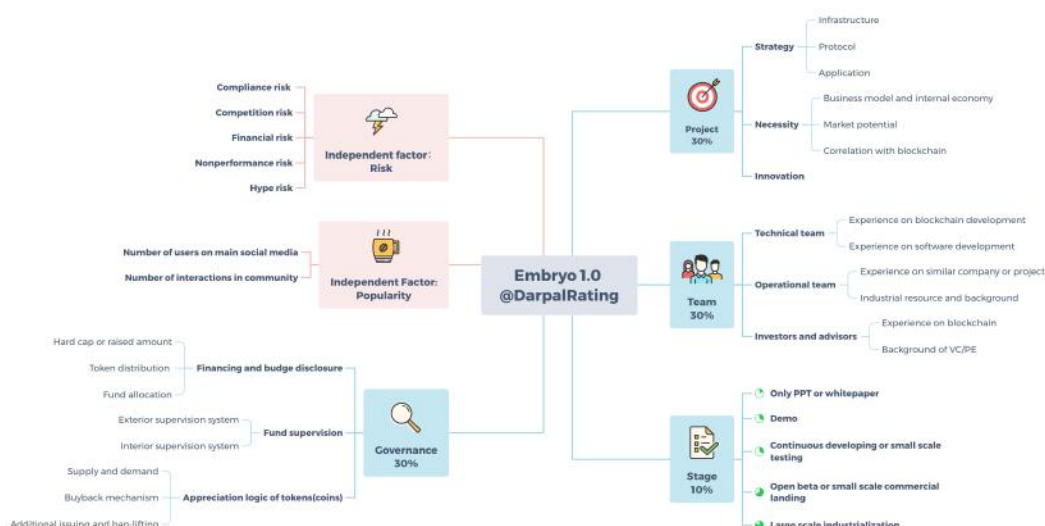


Figure 5. DPRating Budding Version V1.0

This version is applicable to blockchain projects that are still in their infancy and are not on the secondary market. The specific inspection dimensions are as follows:

- **Project:** The project's own positioning and necessity determine the application value and development prospects of the project. Therefore, in the dimension of our model project, we will examine two sub-dimensions: strategic positioning and project necessity.
- **Team:** The team is the decisive factor in the blockchain project and also contains the biggest uncertainty. Through profound practice and accumulation in the past, we set out from the background of the project and the team's career, and divided it into three aspects: technical teams, operation teams, and investors.
- **Community Governance:** In addition to being operated by a centralized development team, the project will also operate on the community ecology that consists of a myriad of coin holders. Therefore, good community governance mechanisms and their effects also represent an indispensable assessment indicator for blockchain projects.
- **Current Progress:** The current progress can directly reflect not only the execution power of the team, but also the feasibility of the project. Therefore, it is also an important dimension.
- **Risk and Popularity:** These two dimensions of assessment are independent from the rating of the main model. In the risk-independent dimension, we do risk assessment of blockchain projects based on some real-world factors. In this independent dimension of popularity, the main statistical channels are the positive exposure of online media to the project, the discussion of social media or projects in the investor community, and so on.

DPRating Growth Version V1.0 Rating Model:

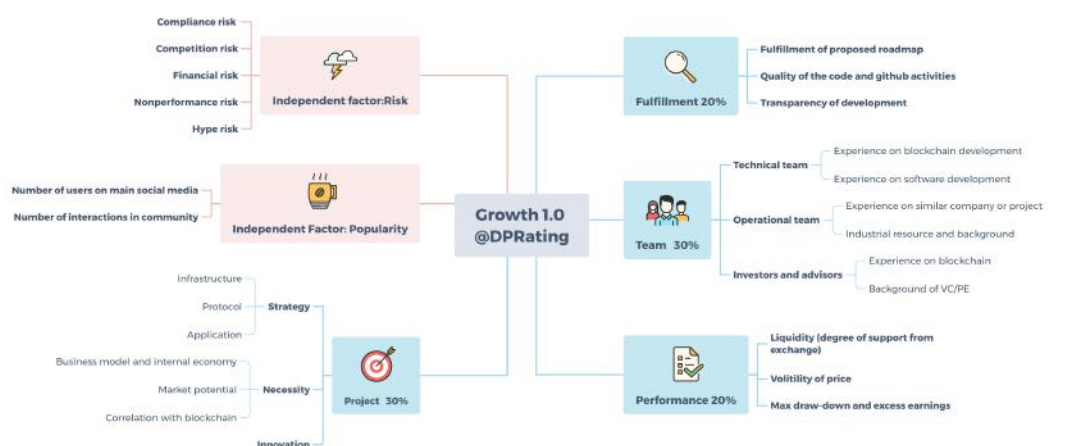


Figure 6. DPRating Growth Version V1.0

As far as the current industry situation is concerned, most of the projects are at their developing stage. Therefore, the Growth model is practically applicable to most of the projects at this period of time. The specific examined dimensions are divided into the following aspects.

- **Project:** The specific assessed dimensions of the project dimension is the same as the embryo version model, and no details are given here.
- **Team:** The specific assessed content of the team dimension is the same as that of the budding model, so no details are given here.
- **Market:** The market performance of blockchain projects is a very convincing factor. Unlike the budding project, the Token of the blockchain project is usually already on the secondary market. The popularity in the secondary market can directly reveal the popularity of the project in the market.
- **Fulfillment tracking:** A blockchain project that is under development, landing, or even commercial promotion. It will initially plan a large number of milestone nodes in the white paper. Whether or not the milestone commitment can be fulfilled on time will reflect the execution and credit of the team, which is generally summarized as performance capability. Therefore, good performance capability indicates whether the project can be successfully completed and recognized by the commercial market. This is a crucial dimension of investigation.
- **Risk and Popularity:** The contents of the two separate dimensions are the same as those of the Embryo model. No further details are given here.

DPRating Mature Version V1.0 Rating Model:

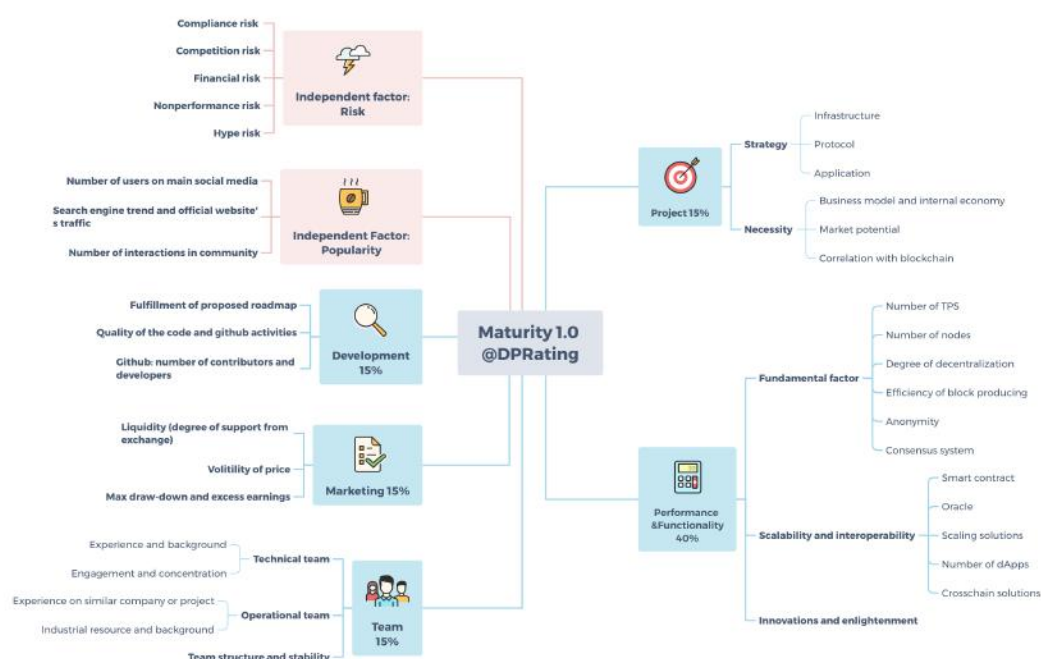


Figure 7. DPRating Mature Version V1.0

For the maturity phase of the project, DPRating built an in-depth rating model based on the growth rating model. This type of rating report will be updated quarterly to apply to pre-investment reference for mature projects. Relative to the growth rate rating model, in addition to the reserved dimensions: project, team, market, and fulfillment, the model also adds to project performance and functional dimensions. At the same time, the model still examines two independent dimensions of risk and popularity.

Given that the other dimensions are basically the same as those of the above two models, only the assessed dimensions unique to the mature version are listed here.

- Performance and Functionality: This dimension is based on fundamental aspects such as number of TPS, number of nodes, level of decentralization, expansion,, interactivity and scalability, and three sub dimensions of project innovation and potential.

II、Project Final Score and Rating Level

Levels	A		B		C		D		E	
	A+	A-	B+	B-	C+	C-	D+	D-	E+	E-
Score Range	[90,100]	[80,90)	[70,80)	[60,70)	[55,60)	[50,55)	[40,50)	[30,40)	[20,30)	[0,20)

Table 1. Comparison table of Project Final Score and Rating Level

2.3.2. Tracking Rating

After the DPRating rating team makes the first quantitative rating on the project, we will continue to track the project, when it has major new changes (such as release of new version, announcement of major progress or cooperation, major disclosure event, etc.) or at the end of each quarter, the rating will be updated and the rating report will be released

again so as to promptly and fully reveal the changes in the investment rating of the evaluated project and related risks.

Based on the updated rating released by follow-up tracking, the following changes may occur in the rating results:

- The rating results remain unchanged: all aspects of the project data have not changed significantly or changes are not big enough to make a difference to the rating results, or the changes have offset the impact of scores, and the final score remains unchanged;
- Upgrade of the rating results: Some of the project's data have improved significantly, prompting an increase in scores;
- Downgrade of rating results: Part of the project's data has deteriorated significantly, prompting a downward adjustment in scores;
- No longer included in rating: The key data of the project could not be obtained, making the rating difficult to implement.

2.4. Investment Index

As an important tool in the investment field, the index is also indispensable in the cryptocurrency industry. Just as the S&P 500, the CSI 300, the Hang Seng Index, and the Dow Jones index play an important role in their respective markets, the investment index also has important value for blockchain investors in the following three areas:

- The index reflects the overall trend of the industry, providing investors with a vane from a global perspective;
- The index can serve as a reference to investors' performance;
- Whether a project has outperformed the relevant index may constitute an important dimension for evaluating the project.

At present, several indexes have been established or will be established in the DPRating Ecology:

■ Bitcoin Volatility Index (BVIX)

The world's first Bitcoin volatility index BVIX developed by the DPRating team. BVIX measures the expected volatility of Bitcoin in the next 30 days. The higher the index is, the more volatile investors believe that the future currency price will be. Bitcoin volatility rates currently available on the internet are all calculated from historical prices, But BVIX is extracted from the option trading price. As options expire in the future, BVIX can better estimate the future compared to other volatility indexes. Plus, it also has the advantage of being able to update in real time. The specific formula for BVIX is as follows:

$$BVIX = 100 \times \sqrt{\left\{ T_1 \sigma_1 \left[\frac{N_2 - N_{30}}{N_2 - N_1} \right] + T_2 \sigma_2 \left[\frac{N_{30} - N_1}{N_2 - N_1} \right] \right\} \times \frac{N_{365}}{N_{30}}}$$

σ_1 / σ_2 : near-term/next-term option implied volatility

T_1 / T_2 : time to expiration of near-term/next-term option, denoted by year

N_1 / N_2 : time to expiration of near-term/next-term option, denoted by seconds

N_{30} / N_{365} : length of 30 days/365 days denoted by seconds

Among them, the formula for calculating the option implied volatility is:

$$\sigma^2 = 2/T \sum_i \frac{\Delta K_i}{K_i^2} e^{RT} Q(K_i) - \frac{1}{T} \left[\frac{F}{k_0} - 1 \right]^2$$

The latest BVIX can be obtained from DPRating official website: <http://DPRating.com/>

■ DP Composite Index

DPC is an index compiled by the DPRing team that comprehensively reflects the blockchain market conditions. DPRing has done some research and classified 400 blockchain projects into six following categories: currency and payment, operating system, trading and transaction, real world gateway, technical solution, and other application. The top 5 tokens in each category are selected as the index's constituent currency. The internal tokens of each category are weighted according to the market value, and the square root of the total market value is used as the weight between categories. This hierarchical weighting method ensures that no token will distort the index due to high weight, and no category will be ignored by the index due to its low market value. These designs allow the DP Composite Index to provide investors with a full picture of the blockchain market.

■ Sector Index

The sector index refers to the selection of a representative cryptocurrency from a subdivided area of the entire market, weighted to form the required index. The various weighting methods of the comprehensive market index can also be applied to the compilation of sector index.

■ Feature Index

The feature index is an index that measures a certain dimension of a single cryptocurrency. The selected dimension needs to meet three criteria: First, there is a demand in the rating; second, it can be calculated based on objective data and does not involve subjective judgments; third, the index changes over time and can form time series to observe the development of the project.

■ Potential Index

According to the in-depth rating of DPRating, various high-quality currencies are selected and weighted to compose the potential index. Investors can use this as reference for asset allocation.

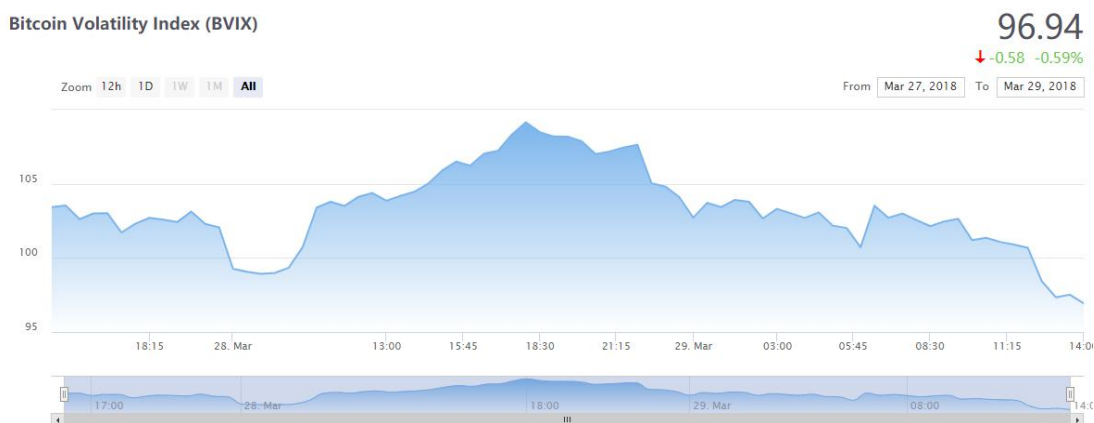


Figure 8. DPRating Bitcoin Volatility Index (Time: 2018/3/27–2018/3/29)

The establishment and update of index require a large amount of dynamic data, such as historical price, current price, trading volume, and circulation volume of the cryptocurrency that has already been online. When constructing the sector index, it is necessary to apply multi-dimensional classification to a large number of currencies. All these workloads are

quite heavy, so the industry's big data platform will provide comprehensive support, which is the major work that DPRating will carry out rapidly.

The index can also be regarded as the basis for investment rating, and the market composite index and sector index are important benchmarks for the evaluation of project performance.

The investment rating, in turn, can also serve as a reference for the index. For example, compiling projects with the same rating into an index can not only provide investors with another perspective of the market, but also can be used as the basis to verify the validity of the rating.

The most important part is that the index enables investors to quickly recognize the market and industry, and provides a very valuable investment reference.

2.5. Cryptocurrency Exchange Rating

The DPRating rating team assesses the overall quality of cryptocurrency exchanges from five dimensions: liquidity, small amount deposit and withdrawal speed, user experience / satisfaction, and security. At the same time, we will track the performance of the new coins that are listed on the exchange in a certain period of time thereafter, and then launch a new quality ranking.

EXCHANGES	BASE CURRENCY TRANSACTION AMOUNT (TEN THOUSAND DOLLARS)	Non-base currency transaction amount (ten thousand dollars)	deposit and withdrawal speed	user experience / satisfaction	security	classification
Binance	213216	7815	Very high	Very high	High	3.0stars
gate.io	8468	309	High	high	High	2.6stars
ZB	11160	1477	High	High	High	2.6stars
Huobi.pro	68649	4609	Medium	Very high	High	2.5stars
AllCoin	702	167	Very high	Low	High	2.3stars
BigONE	750	91	Hight	Medium	High	2.3stars
CoinEgg	8629	1130	High	Low	High	2.1stars
CoinW	151283	8292	High	Low	High	2.1stars
EXX	4139	1197	High	Low	High	2.1stars
HitBTC	36481	806	High	Low	High	2.1stars

Table 2. Top Ten Quality of DPRating Exchanges in January

■ **Liquidity Considerations** (basic currency trading average and non-basic currency trading average)

This dimension is used to evaluate the efficiency of exchanges dealing with deposits and withdrawals by investors, which is an important dimension of the comprehensive service quality of exchanges.

■ Small amount Deposit and Withdrawal Speed

This dimension is used to evaluate the efficiency of exchanges dealing with deposits and withdrawals by investors, which is an important dimension of the comprehensive service quality of exchanges.

■ User Experience/Satisfaction

This dimension is used to judge the user's experience with the exchange, that is, the user's comprehensive considerations vote on the quality of the exchange, and the high quality exchange is filtered out. To this end, we will conduct a monthly user experience vote on the exchange, and investors are invited to actively participate in the voting.

■ Security

This dimension is used to examine the exchange's own fund security and operations. In terms of inspection methods, we mainly examine the length of stable operation of the exchange and whether there are negative news reports.

At present, DPRating has launched a ranking of the quality of exchanges in January 2018. It is well received by the market for its impartiality, objectivity and rationality. The specific ranking can be seen in Table 2. In addition, the ranking of exchanges in the subsequent months is gradually advancing and will be released step by step.

■ New Coin's Quality

The new coins are one of the major sources of interest for the Exchange. As a result, many exchanges often lower the standard for reviewing new coins. and measure the profitability of the Exchange itself after it has placed on a currency instead, which often leads to the loss of interests of investors. That is, investors often suffer huge losses after buying new currencies on the exchange.

EXCHANGES	NUMBER OF NEW COINS	AVERAGE PRICE CHANGE RATIO OF NEW COIN IN JANUARY	AVERAGE PRICE CHANGE RATIO OF NEW COIN IN FEBRUARY	COMPOSITE PRICE CHANGE RATIO IN JANUARY AND FEBRUARY
KUCCOIN	13	18.2%	-25.1%	3.7%
BIT-Z	5	17.5%	-31.4%	-20.4%
LBANK	3	43.7%	-44.5%	-21.7%
BIBOX	9	14.7%	-35.4%	-23.5%
UCOIN	18	-23.0%	-16.6%	-24.9%
BINANCE	12	12.3%	-35.8%	-26.0%

Table 3. New Coins Quality Top 6 in February on the DPRating Exchange

The DPRating team evaluated the recent new coin quality of an exchange by examining gains of the new tokens in the last few months. Based on this, the DPRating team released a new ranking that can effectively help investors to filter out exchanges with strict standard on new coins and therefore avoid being deceived by unscrupulous exchanges. At the same time, they also urge the exchanges to continuously upgrade themselves to new standards and review procedures, prompt them to put quality projects on the shelves, reject problematic projects, and achieve the effect of good money driving out bad money.

2.6. Early Warning

DPRating will continue to follow up recent hot projects and representative cases while doing quantitative rating, and conduct timely risk warning. This risk warning is based on objective data and verifiable information, and discloses objective facts and potential risks to remind investors so that they can avoid making the wrong investment decisions.

DPRating early warning mainly includes:

- Project Warning: including pre-warning, over-hype warning, and long-term failure to perform warning;
- Exchange Warning: including security warnings, false trading volume warnings, joint seats warnings, etc.;
- The Broader Market Warning: the overall trend of the broader market warning and warning of policy risks;
- Industry Hotspot Warning: it mainly analyzes and alerts hotspot events in the industry.

2.7. Ranking

The DPRating ranking is a specific form of various core businesses such as quantitative rating, due diligence, audit and index. It has the advantages of being clear, intuitive and fast, and it can help investors and other participants in the market quickly understand and grasp market dynamics, conditions and trends, and provide necessary assistance for their investment behavior.

■ Comprehensive Project Ranking

Based on quantitative models of quantitative ratings, DPRating regularly gives a comprehensive ranking of the major blockchain projects in the market. At present, the Chinese-English edition of the two-stage comprehensive ranking of DPRating cryptocurrencies has been completed and published on major domestic and foreign information platforms.

■ Exchange Quality Ranking

The quality ranking of exchanges established exchange ratings has released a quality ranking evaluation version and official ranking for January and February.

■ Github Audit

The Github audit audit is based on the Github audit assessment. Since August 2017, the monthly ranking has released seven Github audit reports covering nearly one hundred items.

■ Industry Segmentation Ranking

Built upon the foundation of the original comprehensive project ranking, the industry will be further subdivided into more specific categories and racetracks to facilitate investors to select quality projects for each track.

3. DPRating Future Evolution

As mentioned above, the core positioning of DPRating is to build a cryptocurrency investor service ecosystem with quantitative rating as the core. Therefore, the quantitative rating will be the core hub of DPRating's business. Based on this, it will extend the essential elements of building an investor service ecosystem such as due diligence, ranking, index, and early warning.

However, many of the above businesses require a complete big data platform to provide basic support. Therefore, building a comprehensive, deep, dynamic and scalable cryptocurrency big data platform holds the key for DPRating to advance from a single project to platformization and ecologicalization.

In addition, decentralization is a core attribute of almost all blockchain projects since Bitcoin was invented, but DPRating will not be decentralized at the outset. Instead, it will go through two main phases: the DPRating phase of strong centralized operations, and the phase of less centralization of RatingChain. The reason for this planning is that we believe that based on the current stage of human civilization and the way in which social organizations work, decentralization will lead to worse service experience and lower working efficiency. Therefore, before the business is mature, decentralization is a retreat. This is particularly critical in the field of investor services that have special requirements for efficiency and professionalism. Therefore, in the early stage of DPRating, we will operate our business in a strong, centralized manner, wait for the maturity, and then transform to a less centralization, a community-based cryptocurrency investor service ecosystem with a quantitative rating as its core.

Next, detailed information will be presented regarding the above claims.

3.1. Cryptocurrency Big Data Platform

The smooth development of due diligence, quantitative rating, index and early warning services cannot happen without data support. The cryptocurrency big data platform will be the basic foothold of DPRating rating service ecosystem.

Currently, the overall cryptocurrency market is relatively messy and there are no uniform standards and rules. Therefore, it is very important to build a data collection platform that includes all types of project core information, market dynamics, market information at all levels, and exchange accurate information. Its significance lies mainly in:

- On the one hand, it will become a bedrock for DPRating's businesses and provide sufficient data support for upper-level businesses. For rating business, we need a large amount of data based on this big data platform to obtain the rating model. With the help of those data that can be updated in real time (such as current project code development frequency and quality, etc.), some specific models will have the ability to update rating automatically. The output of the index and the ranking are heavily dependent on industry-wide data. It can be argued that a comprehensive, complete, detailed and accurate industry big data platform is the key to determining whether the investor service ecosystem can have a strong vitality or not.

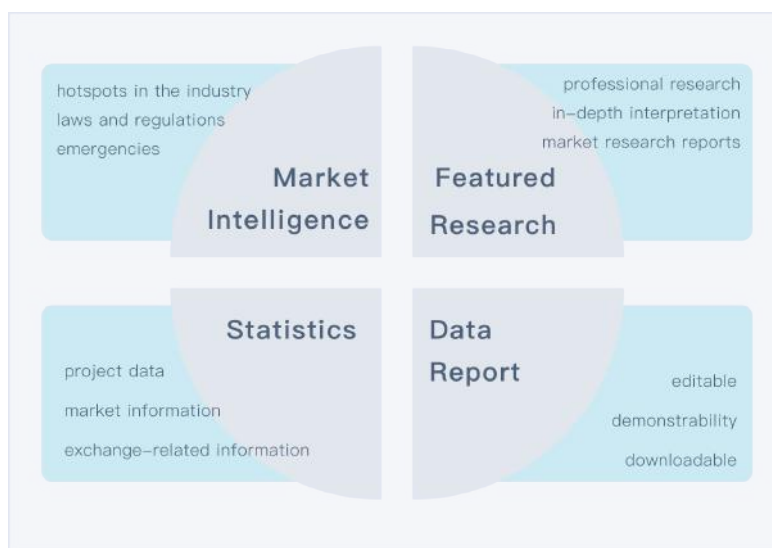
- On the other hand, it can make market information less asymmetrical, thereby lowering investors' investment barriers and accelerating market circulation. This not only benefits the majority of investors, but also makes the market valuation and pricing of cryptocurrencies increasingly rational.

After the industry's big data platform is built successfully, it will be accessible to the outside world. On the one hand, each community user will be provided with free or fee-based download services such as industry data charts, rating service reports, and rankings. On the other hand, community users are welcomed to contribute real data to the platform and participate in the platform's data collection. The relevant rewards and punishments mechanism will be set up to promote community members to contribute real data.

The service portal for external data presented by the big data platform will include the following four parts:

- Cryptocurrency Market Intelligence. Including major emergencies, laws and regulations, as well as the dynamics of market supervision and tracking of hotspots in the industry.

- Cryptocurrency Special Research. Including market prospects, professional interpretation, cryptocurrency price depth research and related research reports.



- Cryptocurrency Statistics. This will be the top priority of the big data platform. The data will cover all blockchain project data, including project core content, team information, development progress, promotion landing status, primary and secondary market cryptocurrency information, and exchange-related information.
- Cryptocurrency Data Report. Basic visualization data will automatically generate statistical reports for all parties to download and use

Figure 9. Industry Data Platform Content

The technical architecture of the industry's big data platform includes the application layer, product layer, service layer, access layer, computation layer, storage layer and operation maintenance and monitoring, as follows:

- Application Layer: externally display through WEB, APP and H5, and provide external data API services at the same time;
- Product Layer: various personalized reports, index analysis, data big screen, rating ranking report, warning service;
- Service layer: platform services, search services, external services;
- Access Layer: automatic crawling of various project information (price, circulation, code update status, community activity, etc.) through crawlers, access to transaction information through exchange API and allowing project owners and communities to adopt our own System to update project information;
- Computation Layer: perform various personalized data analysis through SparkSQL, etc. calculate various indicators at regular intervals through Spark, etc., calculate various indexes in real time through Strom and provide early warning services;
- Storage Layer: analysis reports through MySql storage .ElasticSearch and Hbase store large-scale data;
- Operation and Maintenance: automate the deployment of various system services to improve personnel efficiency;
- Monitoring: real-time monitoring of the operation of each system and providing alarm services to ensure the safe and stable operation of the system.

Application layer	WEB	APP	H5	third-party platform
Product layer	statements	data big screen	reports	warning
Service layer	platform services	search services	external services	Operation and Maintenance/ Monitoring
Access layer	crawler	exchange API	project owner and communities	
Computation layer	offline SparkSQL HIVE	egular interval through Spark	real time through Strom	
Storage layer	Mysql	ElasticSearch	HBase	

Figure 10. The Core Technology Architecture of the Industry's Data Platform

The security of basic data and clear copyright attribution are sufficient conditions to ensure that DPRating continuously produces high-quality rating services. Therefore, while building a big data platform, it is necessary to consider these two issues:

■ Big Data Platform Data Security Solution

In addition to the business support of DPRating, the big data platform will also be available to the community. All basic data in the platform will be provided free of charge. Community members can obtain data based on WebApp products directly, but they can also use the restful API provided by us. Although the platform will provide free data to the community, the following measures are indispensable in order to prevent data leak and theft:

- Prevention of external malicious usage: The platform saves the user's IP, user agent, and other information. If the same IP is frequently invoked for more than a certain number of times within a certain period of time, the IP will be automatically added to the blacklisting, limiting the IP to be unavailable to get data for a period of time. Related monitoring parameters can be dynamically set by the staff in the background.

- The key API data interface needs authorization: Different levels of users and partners release different KEYS. When the partner requests an API that requires authorization, the KEY issued by the platform is used for signing. The platform verifies whether the signature of the request is legal according to the partner ID and KEY. Access to data is permitted only when it is legal.

- Copyright protection: All the due diligence reports, rating reports, audit reports, and index reports produced by DPRating will adopt anti-counterfeiting encryption measures to prevent users from maliciously spreading or privately selling those reports.

The above third point, that is, the specific practice of copyright protection is tentatively drawn up as:

- Watermark encryption for paid downloads: There are two types of reports available in the platform: free version and paid version. For paid version, after the community user purchases and downloads the payment, DPRating will process the report, adding the user's encrypted digital identity watermark and implementing one-to-one authorization. Once it is discovered that

the report has unauthorized circulation in the market, the downloading user will be subject to deductions, restrictions on authority, and even a number of other serious measures.

- **User Margin:** For some core services, paying users of the service will be required to pay a certain amount of token deposit to use as a limit to supervise and regulate the exercise of relevant user rights. When the user is found to have irregular behaviors, such as unauthorized dissemination without the permission of DPRating team, stealing relevant data reports, a portion of the deposit will be deducted.

We will mention in the section on the integral economy system below that the foundation will obtain token income by means of a paid downloaded report, which will in turn become the source of the tokens for the eco-infrastructure and senior incentives. Therefore, the copyright protection for the paid report is the fundamentals of ensuring good ecological operation.

▪ Open Plan for Big Data Platforms

Many services of the big data platform will be open to community users. However, we define this as "shallow openness", which corresponds to our "in-depth openness."

In-depth openness, refers to the concept that community users, in addition to becoming users of the big data platform, will also become the builders of big data platforms. Apart from collecting data through the crawler, the platform's data collection, especially for data or some dynamic progress that is difficult for reptiles to collect, we also welcome all community members, including project parties, exchanges, and ordinary investors, to add more data. The Foundation will offer rewards to those contributors.

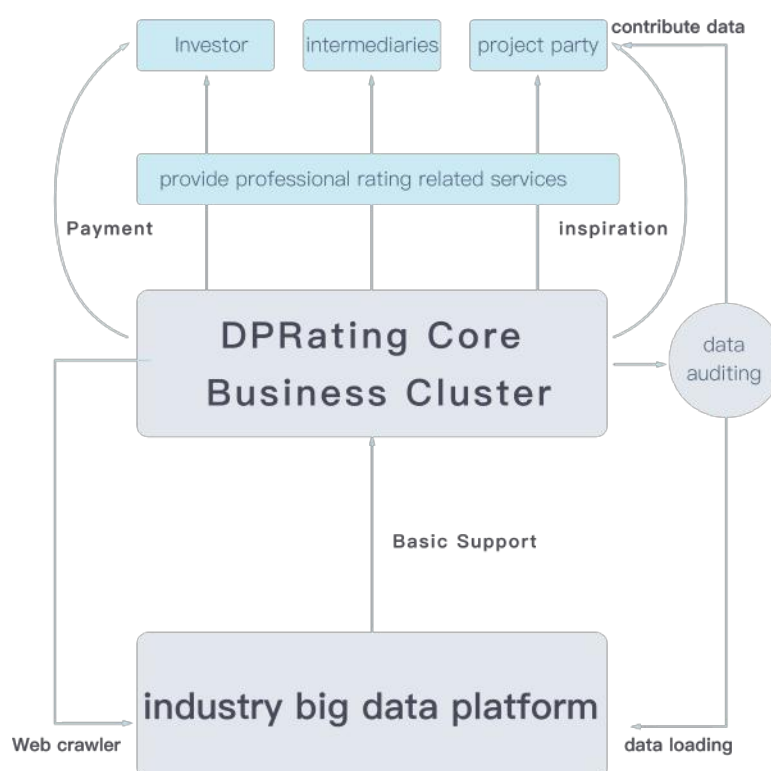


Figure 11. DPRating Rating Service Closed-Loop Ecosystem

In order to prevent community members from contributing false data in order to obtain tokens, or maliciously provide problematic data for some specific purpose, we will establish a reward and punishment system for the data contribution link. Users who provide real and accurate data will receive tokens rewards, but those who maliciously provide false or problematic data will be punished accordingly

3.2. Less Centralization Transformation

Since the emergence of Bitcoin, decentralization has been a core attribute of almost all blockchain projects. The decentralized economic incentive system with tokens as value carrier brought about by it has become the core charm of a blockchain project. However, the following issues such as efficiency and professionalism are more significant. The former is particularly urgent.

However, DPRating will not be decentralized at the beginning, it will experience two major phases: the DPRating phase of strong centralization operations and the RatingChain phase of less centralized operations. The reason for this planning is that we believe that based on the current stage of human civilization and the way in which social organizations work, decentralization leads to worse service experience and lower working efficiency. Therefore, prior to the fact that the business is mature, decentralization is a retreat. This is particularly critical in the field of investor services that have special requirements for efficiency and professionalism. Therefore, at the early stage of DPRating, we will operate our business in a strong, centralized manner, wait for the time to mature, and transform to a less centralized version, and a community-based cryptocurrency investor service ecosystem with a quantitative rating as its core.

It should be noted that the two different phases will exert no influence upon our service. Only in the previous stage, the business is mainly led by the DPRating team. In the latter stage, the business will be dominated by the DPRating team and other excellent analyst teams or individuals in the community.

■ Strong Centralization Stage

The current stage of DPRating is the stage of strong centralized operation which is the DPRating phase. In this phase, the core leader of the business is the DPRating team, which includes all businesses including quantitative model evolution and tuning, due diligence, auditing, early warning, index, quantitative rating, and ranking. The DPRating team will be relatively powerful in the process of guiding the development. However, at this stage, there will still be strong community-based attributes. The community is allowed to contribute to the big data platform at this stage. Macro community members including project parties, exchanges and investors can all participate in the data contribution, and receive appropriate incentives. In addition, we will open community rating dimensions and voting functions for projects such as project ratings and rankings, so that community members can participate in core processes such as rating.

The details of strong centralized operations are described in the previous sections of this article. No further details are given here.

■ Less Centralization Stage

In the following time plan, we will mention that a strong centralized operation will play a key role in the development of the DPRating ecosystem, and when the ecological business becomes stable, the community is warm and a number of outstanding members participate in the implementation and promotion of the ecological core business, we will fully march to the second phase, the less centralization phase, completing the transition from the DPRating form to the RatingChain form.

Less centralization means that the various responsibilities shouldered by the original DPRating team will gradually be accessible to community members. In the end, the DPRating team will become part of the community just as other analyst teams in the community.

The construction of a weak center is not a one-time event, thus it requires a large number of excellent community members to take part in this work together. The ultimate goal is that the DPRating team will become an ordinary contributor in the community, like

every excellent analyst team and individual. We can briefly describe the operation of the community in the form of less centralization based on several business directions:

- Due Diligence: Due diligence under less centralization is no longer solely done by the DPRating team. Community members can initiate due diligence on specific projects. In the same way, the commissioner will be qualified personnel in the community, and the benefits of the report will also be shared by them.

- Quantified Ratings: In less centralized form, each community member is free to propose his own quantified model, submit it to the DPRating big data platform, and choose to set free or paid use by other analysts. Analysts' individuals or teams can freely choose to rate projects based on specific models, DPRating big data platform will provide data support for these ratings; the rating of one project can be completed by multiple teams, and their' rating reports will be equally accepted by the community readers, through the survival of the fittest to select between teams, DPRating's current team of analysts will also be an regular member of many teams;

- Index: Community members are free to build their own index generation algorithm in the big data platform, and set their own index constituent stocks. Their calculated index will also be displayed in front of all community members equally, and good index will get more community members' recognition, thus it may stand out;

- Rankings: Community members can build specific ranking screening algorithms and criteria based on their own knowledge, launch their own rankings, and display them equally in front of community members. A good ranking will be sought after by community members and become outstanding.

The less centralization stage is expected to begin in 2 years and the DPRating team will gradually fade out of the dominant role and become an ordinary member of the RatingChain ecosystem.

3.3. DPRating Community Conference

The development of DPRating's various businesses is inseparable from the support of the community. Like Apple's annual WWDC ("Worldwide Developers Conference", Apple Global Developers Conference), we will also hold yearly DRCC ("DPRating Community Conference", DPRating Community Conference).

The conference is available to all community token holders, including individual holders and institutional holders. It also welcomes project parties and exchanges that hold our tokens, community members of the DPRating rating service ecosystem, investors, and project parties and exchanges. Project parties and exchanges are both our data providers and the targets of many of our businesses. They will also give us valuable advice and help boost the growth of the ecosystem.

The first DRCC is expected to be held in Q2–Q3 in 2018.

4. Token Economic System

4.1. Token Economic System

The construction and governance of the DPRating rating service ecosystem cannot be separated from the Token Economic System of the ecological internal circulation, which is the most attractive part of the blockchain project. Unlike conventional non-blockchain projects, the Token Economic System often runs through the entire life cycle of blockchain projects. **Therefore, it must maintain its closed-loop integrity and intrinsic value promotion.**

The DPRating Token Economic System embodies the essence of business, namely value and efficiency. The tokens are the carrier of value, which enhances the efficiency within the ecosystem and the ecological closed-loop operation. This means that through the tokens cycle, on the one hand, the DPRating team can be stimulated to generate new meaningful quantified rating services and other services, thereby fully satisfying the interest demands of the tokens holders and users, and ensuring the continuous increase of the value of tokens. On the other hand, the autonomy within the ecological service of the rating service will be realized, and the friction between the organizational forms in the community will be reduced like lubrication fluid, which brings about an increase in efficiency and guarantees the integrity and health of the ecological closed loop.

In general, DPRating tokens will run through the entire DPRating business: On the one hand, as a proof of purchase for many payment services within the ecosystem, it becomes the sole payment method for service users. On the other hand, the tokens will be used as rewards of various types, with specific forms being distributed to the community free of charge, and the community is also a potential buyer of the service, thereby forming a closed-loop flow. At the same time, the tokens holder can also obtain some correspondence services within the DPRating ecosystem due to his holding behavior and the corresponding amount of tokens he holds, such as participating in the DPRating Community Conference.

In addition, the DPRating Foundation has designed institutionalized measures for the destruction of tokens so that the number of tokens can be steadily reduced and the value of tokens can be increased.

4.2. Tokens Allocation Details

The DPRating Foundation will possibly issue tokens based on ETH's ERC20 Agreement, tentatively named as Rating. Taking into account the constant emergence and rise of the new basic public chain in the industry, Rating may also be issued based on EOS depending on the timing of the actual issue of tokens. However, whether based on ETH or EOS makes no difference to the interests of tokens holders.

The total amount of Rating is 10 billion pieces, which will never increase. With the destruction mechanism we have set, the actual stock will decrease year by year. The rate of decline is proportional to the prosperity of the DPRating ecosystem.

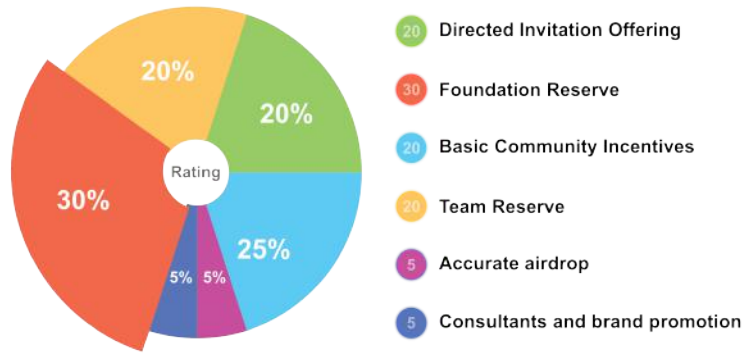


Figure 12. Tokens Allocation Chart

The initial allocation of Rating is shown in the chart above. The specific allocation details and usage are as follows:

- 20%, that is, 2 billion, for institution investors; this part is only for institutional parties that are targeted for invitation, not for individuals and institutions that are not within the targeted invitation;
- 5%, that is, 500 million, used for accurate airdrops to the most active users in the community. These users will form the most loyal supporters and builders of the DPRating ecosystem; airdrops are expected to cover 10,000 or so users and they will need to complete specific mission before obtaining;
- 20%, that is, 2 billion, for DPRating community based incentives; the main form is distributed to people who contribute to the community in an appropriate form, mainly including users who add real data to the ecosystem and contribute to community promotion;
- 30%, that is, 3 billion, for the DPRating Foundation pool of tokens, specifically for ecologically advanced incentives and necessary strategic investments. The DPRating Foundation promises to strictly control the threshold for strategic investment and the proportion of tokens it will use. Most of the tokens will be used for strategic incentives, cooperation and other advanced incentives needed to build a less centralized community. Only a very small portion will be used in indispensable strategic investment in ecology;
- 20%, that is, 2 billion, allocated to the DPRating team; unlike the few projects where the team pool is fully unlocked within 1 year, our tokens are locked for 1 year from the date of allocation, and unlocked 25% annually after 1 year. Finally, it will be unlocked five years after the date of distribution;
- 5%, that is, 500 million, for consultants and branding expenses, and this part of the tokens will also enforce the lock-in rules.

■ Destruction mechanism and expected inventory changes

In order to facilitate the institutional reduction in the number of Rating, we have established a destruction mechanism for Rating: Whenever the DPRating Foundation receives a payment due to the purchase of related services, 1% of the paid tokens Rating will be destroyed directly. The specific destruction measures are: Directly transfer the received 1% to a private address whose private key controlled by no one. The address will be both accessible to and supervised by the community.

Obviously, the more prosperous the ecosystem of DPRating is, the more frequent and higher the payment within the ecosystem will be, and the faster the number of Rating will fall. According to survival analysis, the number of Rating can be settled by the following formula:

$$N(t) = N(0) \exp\left(\int_0^t -h(t') dt'\right)$$

$N(0)$: Initial amount of Rating, 10 billion.

$h(t)$: Rating destruction intensity, proportional to the destruction rate of 1%, and is a function of time. It is assumed here that $h(t)$ is a linear function of time, ie. $h(t)=a \times \text{destruction rate} + b \times \text{time}$, where a is the positive correlation coefficient between destruction intensity and destruction rate, and b is the positive correlation coefficient between destruction intensity and time.

Based on the above formula, qualitatively speaking, the actual stock and time of Rating will roughly show the following relationship:

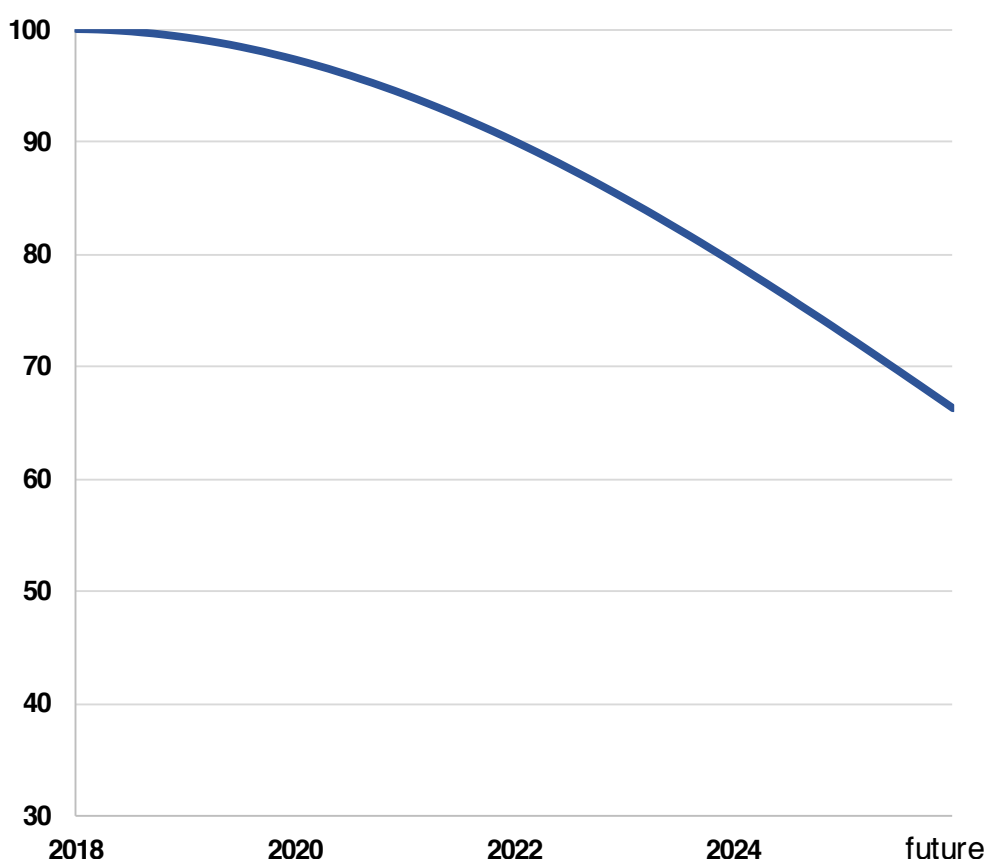


Figure 13. Predictive Graph of Actual Stock Changes Over Time (Y-axis units: 100 million, X-axis units: years)

■ 30 days remorse period

For targeted parties, the DPRating Foundation will provide a 30-day remorse period. During this period, the subscriber can withdraw his money unconditionally. Within 30 days from the time of subscription and transfer of money to the account, the subscriber may apply for a refund of the currency without any reason. After the confirmation, we will return the original cryptocurrency of the equal amount transferred by the subscriber to his transferred address. However, please note that the refunded currency only supports the full refund, not supporting the withdrawal of a portion, and once the refund is completed, the DPRating Foundation no longer accepts the party's re-investment request.

4.3. Roles, Functions and Uses of Tokens

In the DPRating rating service ecosystem, tokens play different roles and have different functions, making it a multi-purpose tool.

The tokens can be circulation tokens, rights, network tolls and benefits, ecological incentives, etc. Therefore, it has different functions such as transaction measurement, payment method, ownership, access, use right, voting right, work incentive, and interests distribution.

Its multi-functional features will play a role in frictionless trading, economic creation, governance guidance and value growth in the DPRating rating service ecosystem. The three-level structure of roles, functions and uses is shown in the following figure:

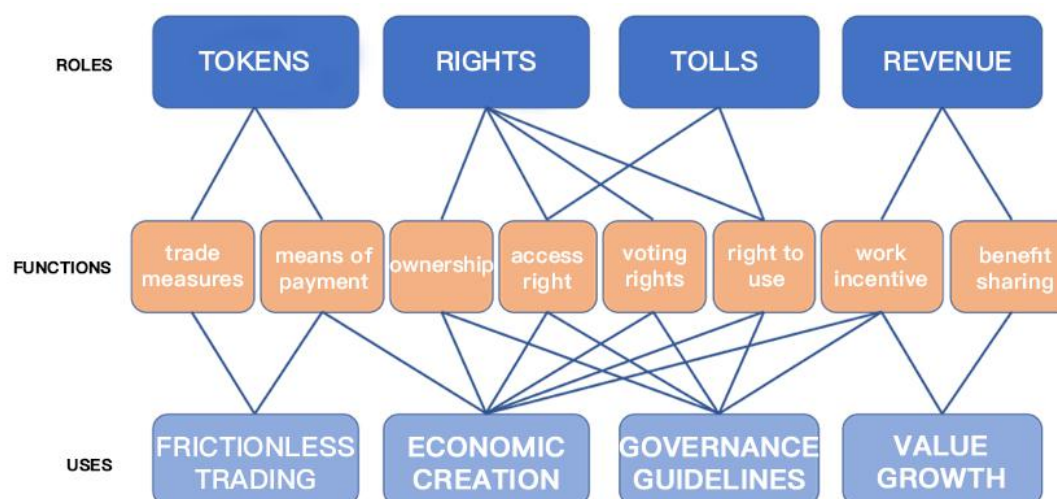


Figure 14. DPRating Integration Roles, Functions, and Uses

As a carrier of eco-economic incentives, Rating tokens will be attached to significance in a variety of ways. It will be used as payment vouchers for all payment links within the ecosystem, including but not limited to the following scenarios:

- Expenses for purchasing the due diligence report by the investors (including individuals, institutional investors or exchanges, below omit)
- Expenses for purchasing the rating report of the project by the investor
- Expenses for purchasing the audit report of the project by the investor
- Authorization fees by Funds to pay for specific index, investment signal (possible)
- Community members pay to participate in voting integrity fees (anti-brush votes)
- External payment of advertising costs
- Other possible reasonable payment behavior in the ecosystem

Secondly, it will be distributed to community members free of charge as a motivational document in a reasonable and effective manner, including but not limited to the following scenarios:

- Incentives for community members who participate in the transmission information within the ecosystem (such as tonal adjustments, ratings, rankings, etc.)and promotion
- Incentives for community members voluntarily participate in data contribution and provide project party real data
- Incentives for community members, including independent analysts, to participate in due diligence, rating, etc.
- Incentives for project parties and exchanges to add real data independently
- Build subsidies for strategic partners in less centralized communities

- Rewards for other types of community-friendly operations

In macro view, the tokens, as an eco-friendly lubricant, can be summarized as shown in Figure 15:

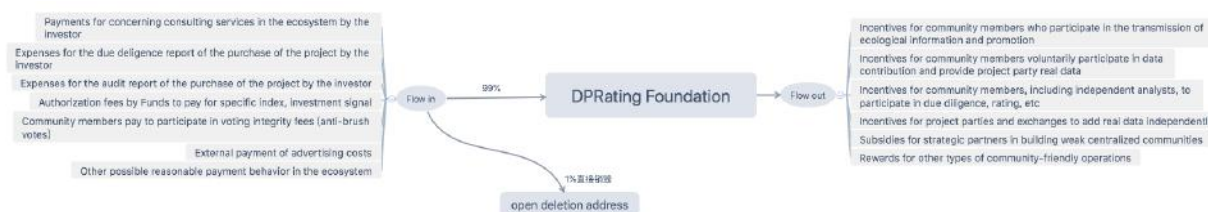


Figure 15. Tokens Distribution Diagram

There are three major players in the ecosystem: ordinary investors, senior investors, project parties and exchanges. Ordinary investors generally refer to individual eco-participants whose sole purpose is investment. Senior investors represent institutional investors or analysts who have the ability and willingness to participate in the less centralized governance construction. Project parties and exchanges as the object of rating in the ecosystem are also one of the core players. The use cases of tokens for the three types of participants can be expressed as follows:

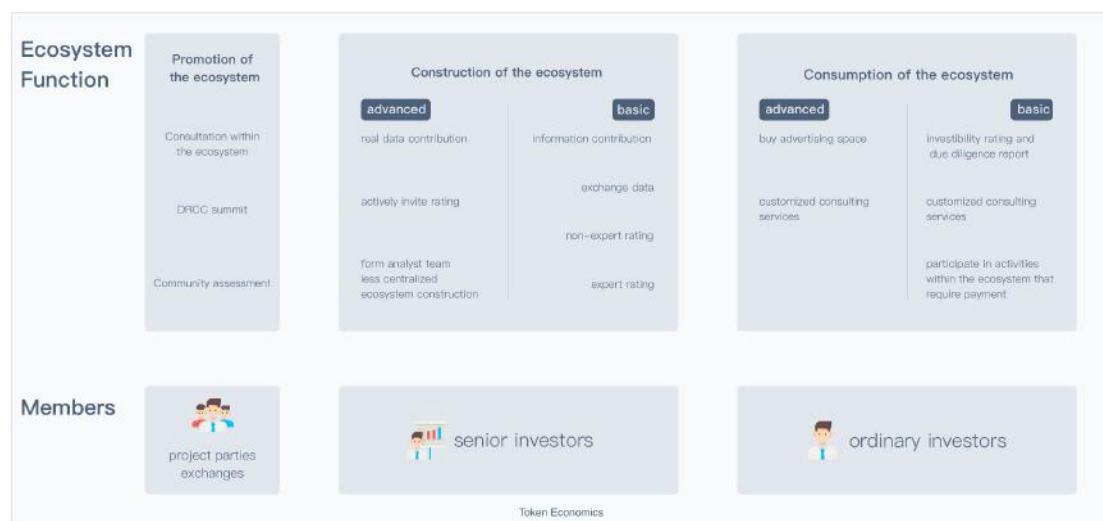
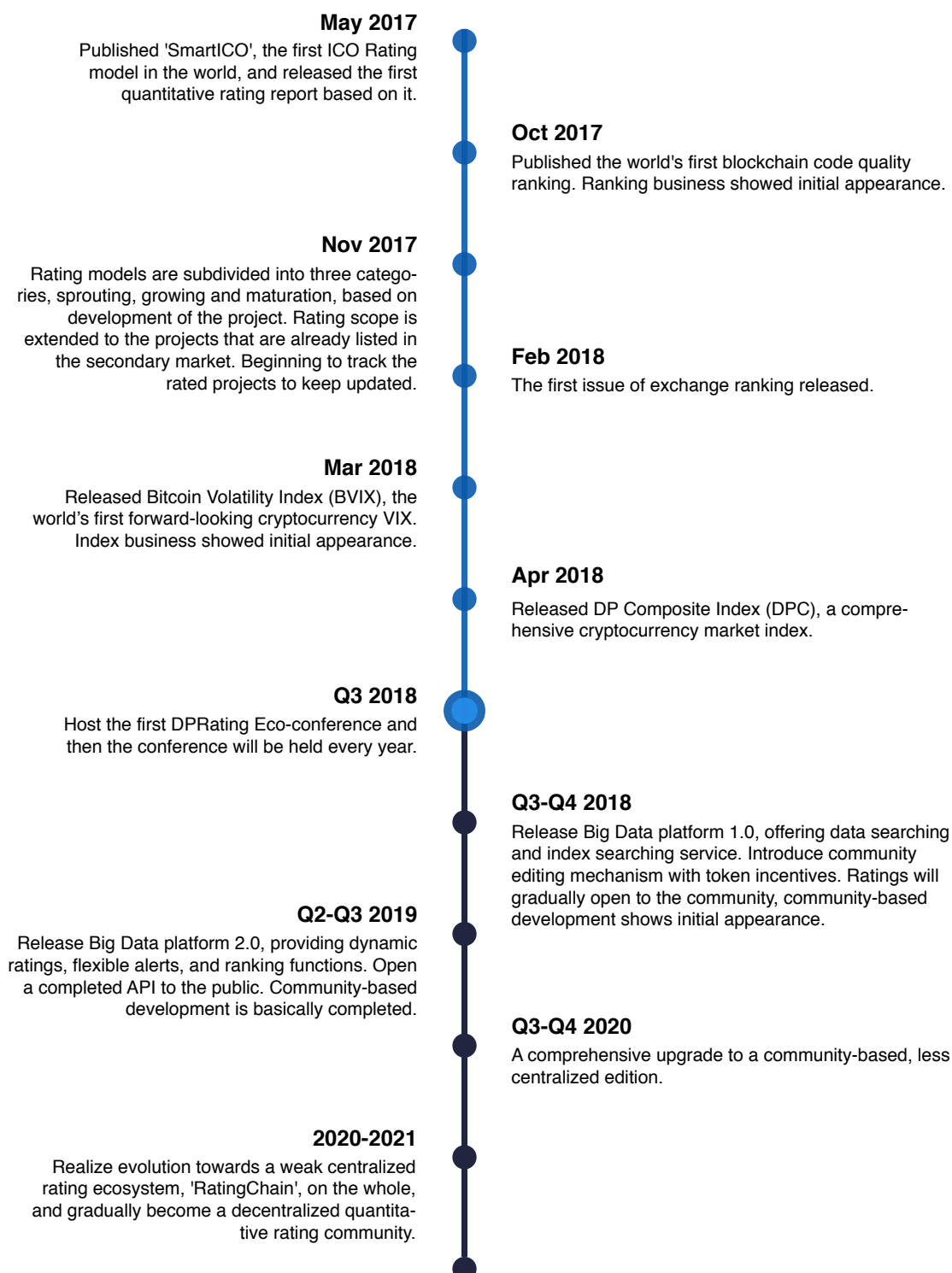


Figure 16. Tokens Using Conditions for Three Types of Participants

In the above figure, the bottom three are the three major members of the community and the top three are the tokens using conditions. However, it should be pointed out that the three major roles of the community often overlap and there is no clear and unchanging boundary.

5. Time Line



6. Budget Plan

The overall budget will be divided into three parts:

1. Budget for fund raised from invited institution investors
2. Budget as economic incentives in the community
3. Budget for the Foundation

The three budgets are used for different requirements, and the budgets will be planned separately.

■ Budget for fund raised from invited institution investors

According to our time line, DPRating will be in a strong centralized operation mode (but with a community form) in 2018–2019, and it will begin to turn into a community-based and less centralized one starting from 2020. In general, we believe that the DPRating ecology will take five years to become mature, so the financing amount will be funded for the ecological development and operation within five years.

proportion	MAIN USAGE	Budget period	Specific budget
40%	development expenses	Five years	It consumes 8% per year on average. It is mainly used for human resource costs in product development, including the hiring of experienced engineers, big data experts, artificial intelligence and machine learning experts, products and designers at home and abroad, and form an international professional R&D team.
15%	Marketing	Five years	It is expected to consume 4% each year for the first two years and about 2.3% for the next three years. In the first two years, due to the immaturity of community construction, it is necessary to strengthen marketing-led marketing activities to promote development of the ecosystem
5%	Legal consultation and compliance	Five years	It consumes an average of 1% per year and is used for the building the compliance of the system. Considering that the attitude of all countries towards cryptocurrencies are generally not friendly, it is reasonable that 1% of the budget should be spent on regulatory compliance expenditure every year.

25%	Operating expenses	Five years	This part is expected to increase year by year corresponding to the expansion of the team. It is estimated that about 3.5% will be consumed each year in the first two years, and about 6% in the next three years. It mainly includes the human resource costs of the operation team, office space expenses, server leasing, holding of ecological events, and other basic operating costs.
15%	Reservation	Five years	Taking into account the actual operation of the project, there is often a shortage of budget due to various uncertainties. It is reasonable to set aside 15% of the funds for extra budgetary expenditures within five years.

Table 4. Cryptocurrency Budget for Targeted Purchases

We adhere to the idea that the cryptocurrency derived from crowdfunding is only used for construction of the DPRating ecosystem, and the ecology will give it back to the community as much as possible. Therefore, the DPRating Foundation solemnly promised that if the DPRating Ecology has been constructed and is operating well, the DPRating Foundation is self-reliant on the intra-economy income to maintain normal operation, and the crowd-funded cryptocurrency still has balance left, **the balance will be fully repurchased which stands for the way that tokens are given back to the community.**

■ Budget for economic incentives in the community

As mentioned above, this part of the tokens will be used for community-based incentives. The main targets are users who add real data to the ecosystem and users who contribute to community promotion;

This part of the tokens needs to be used as a basic incentive in the ecosystem for a long time. It should have done a longtime budget. But taking into account that the foundation's revenue will gradually increase, we continue to spend only 5 years on the integral use plan budget. And 5 years later, the underlying incentives will be paid through part of the Foundation's revenue.

PROPORTION	Main Usage	Budget period	annual budget
50%	Data contribution incentives	Five years	The average annual consumption is about 10%, which is mainly used to motivate community members who have contributed real data of real projects and exchanges to DPRating.

50%	Promotion incentives	Five years	The average annual consumption is about 10%, which is mainly used to motivate users who contribute to the promotion of DPRating Ecology. The main forms are expected to be incentives for repatriation, sharing of incentives, etc. However, this type of incentive is easy to obtain, so it has less single quota and is positioned to encourage huge community members autonomously promote any activity in the community.
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Table 5. Community Based Incentive Tokens Budget

■ Budget for the Foundation

The tokens held by the Foundation will be mainly used for ecologically advanced incentives and necessary strategic investments. It will be oriented towards the long-term ecological needs of the tokens, especially when the ecological environment is fully transformed into less centralized and community-based communities. It is necessary to provide incentives to good teams and members in community so as to ensure the operation of less centralized rating communities.

For this part of the token, we currently use it as a budget for 10 years. The 30% tokens currently held by the Foundation may not be sufficient, but considering that the foundation's revenue will gradually increase, the budget should be drafted according to the current amount.

proportion	Main Usage	Main Usage	Main Usage
70%	Ecological advanced auxiliary incentive	Ten years	In the process of transforming the ecologically centralized operation model into the weak central model, a large number of excellent members and teams within the ecosystem are required to participate in the establishment of the less centralized ecosystem. At this time, these members are not enough to realize profitability within the ecosystem. Therefore, it is necessary for the Foundation to give them the corresponding incentive tokens. This part of the incentive is mainly for excellent teams within the ecosystem. The amount of single incentives will be higher, but the corresponding lock-in period and assessment criteria will be set.

20%	Ecologically Strategic Investment	Ten years	Whether it is the strong centralized ecosystem of the previous DPRating pattern or the construction of the less centralized ecology in the later stage of the RatingChain, we all need the support of a large number of excellent strategic partners. The DPRating Foundation will, based on demand, make strategic investments in parties that are in line with ecological interests and can provide significant help to the ecology.
10%	reservation	Ten years	Taking into account the actual operation of the project, the budget caused by various uncertainties often occurs. Therefore, it is reasonable to set aside 10% of the funds for extra budgetary expenditures within 10 years.

Table 6. Foundations–Held Tokens Budget

7. Foundation Governance

The DPRating project is part of the RatingChain Foundation, a non–profit fund in Singapore. As mentioned above, the DPRating project will go through two major stages: the DPRating stage of a strong centralized operation and the RatingChain stage of a less centralized operation. The reason for this planning is that we believe that based on the current social organization methods and human civilization at this moment, the decentralization brings more obvious declines in experience and efficiency. As the business is still immature, decentralization is just a kind of retreat. Therefore, DPRating will operate its business in a strong, centralized manner at its early stages, and will fully transform to a less centralized one when the timing is right.

Despite of this, DPRating in the strong–centralization phase is only a centralized operation. The ownership of the project is still the RatingChain Foundation, the non–profit fund.

■ Organization Structure

The RatingChain Foundation will consist of the following components:



Figure 17. RatingChain Foundation Organization Chart

The following describes each party's functions:

- **Decision-Making Committee:** The RatingChain Foundation will establish a decision-making committee whose functions lie in the appointment or dismissal of executive officers, the formulation of important decisions, the holding of emergency meetings, and the supervision of executive officers;
- **Executive President:** The executive president is elected by the RatingChain Foundation's decision-making committee. It is responsible for ensuring the implementation of the decisions made by the decision-making committee, supervising and verifying the work of each subordinate working group, the daily operation and management of other foundations.
- **Business Working Group:** lead by a member of the board of directors, responsible for advancing the progress of rating, index, ranking, and due diligence business in ecosystem. At the same time, it is responsible for digging and inviting excellent analyst team to settle in, and tracking the performance of the analyst teams that have settled;
- **Product Working Group:** lead by a member of the board of directors, responsible for promoting the development and operation of business-supported products such as ratings, indices, rankings and due diligence represented by the cryptocurrency big data platform in the ecosystem;
- **Risk Control Working Group:** lead by a member of the board of directors, responsible for controlling the foundation's legal and financial risks;
- **Finance and Human Resources Working Group:** lead by a member of the Board of Directors, responsible for recruitment, compensation management, responsible for the management of funds raised and budget review;
- **Internal Audit Working group:** lead by a member of the board of directors, responsible for auditing the financial status of the foundation and issuing quarterly external audit reports.

▪ **Audit**

In addition to setting up an internal audit working group and publishing quarterly audit reports, the Foundation also plans to invite third-party auditing agencies to audit its financial status and truthfully publish audit reports

However, subject to the fact that cryptocurrency represents a new value carrier that has not yet been fully recognized by mainstream countries, there are currently no professional and reasonably priced audit service that claim to accept such audit services. Therefore, the Foundation will do its utmost to fulfill this commitment.

8. Team Members and Investors

■ Core Team Members (partial)



Darpal Wang Founder	<p>Master of Computer Science and Technology in Sun Yat-Sen University, former member of the Alibaba Wireless Division Structure Group, famous opinion leader in the crypto industry, founder and person in charge of the famous wechat account “大炮评级”, and one of the early evangelist in the domestic crypto circle. He first acknowledged Bitcoin by reading the Genesis paper in 2010. Later in October 2013, he was the first person in China to give a lecture on the principle of Bitcoin in university (the Graduate School of Computer Science in Sun Yat-Sen University). In July 2017, he began to rate ICO and cryptocurrency investability, and took the lead in releasing SmartICO, the world's first ICO rating model. Due to the fact that SmartICO, which rated almost all popular projects at that time and received wild praises (wild praise?). The SmartICO model was abandoned in October and evolved into a more scientific DPRating budding (embryo), growth, and mature version. Due to his achievement in cryptocurrency rating, he has received numerous interviews with well-known media such as the Securities Times and 36Kr. He has a renowned reputation and huge influence in the industry.</p>
Martis Jiao Technical director Architect	<p>He holds a bachelor's degree in computer science and technology from Hangzhou University of Electronic Science and Technology. He has worked for companies such as Alibaba Cloud, Yuantu Interconnect and Aikeshi. During his work in Alibaba Cloud, he was mainly responsible for the development of the cloud OS system layer and application layer. When he worked in Yuantu Interconnect, he was mainly responsible for the architecture design and development of the virtual settlement and smart ward system. During the worktime of Aikeshi, he was mainly responsible for the data service of coupon and the architecture design and development of intelligent robot. He has a wealth of experience in android system development, big data processing, high availability system architecture. He is one of the initiators of daoone.org, the first decentralized self-government organization in China. Meantime, he is in charge of making decisions considering community operations, popularizing blockchain knowledge, and developing smart contracts for internal systems.</p>
Kinrey Li Blockchain analyst Specialize in Index Designing	<p>M.S. in Quantitative and Computational Finance in Georgia Tech. Kinrey was a financial engineer for quantitative trading in a New York fund in the past two years. He also has research experience in a leading family office. His expertise includes deriving implied information from financial derivatives, and his paper has been presented in a top peer-reviewed scholar conference. He participated in crypto area since 2013, co-founded Georgia Tech Bitcoin Club. In early 2016, he gave live broadcast of Miami scaling debate roundtable to domestic crypto community and helped make their voice heard by the conference.</p>
Zack Zhou Blockchain analyst Specialize in Technical direction	<p>He holds a bachelor's degree in computer science and technology from Ji'nan University. His research interests are information security and cryptography. His first contact with the encryption algorithm and Bitcoin was in the school cryptography course in 2013 and has continued to be of keen and uninterrupted interest in the blockchain and cryptocurrency. He used to be the head of the evaluation team of 37 Interactive Entertainment product cooperation. He was responsible for the back-testing and team evaluation of the R&D team in the project introduction, demand analysis, commercial ecological assessment and competitive product analysis in the product analysis. Now, he is responsible for the ratings of the project's technology and application.</p>

Van Blockchain analyst Specialize in due diligence	Bachelor of finance in Nanjing Agricultural University and is certified by AFP. He once served as an authorized director of a China Merchants Bank tier-one branch and was responsible for internal control and risk control. In mid-2017, he started working as a wealth management manager at China Merchants Bank, specializing in analyzing financial conditions and assessing risks. He is mainly responsible for due diligence and compliance on the project (started cryptocurrency investment at the beginning of the year and the annual rate of return exceeds 30 times).
Davis Guan Blockchain analyst Specialize in finance	He is from East China University of Science and Technology, majored in business administration, Certified International Investment Analyst (CIIA), and has many years of experience in the financial industry. He used to work for (as) an analyst at a well-known domestic asset management company. He specializes in financial forecasting and commercial feasibility assessment of startup companies, and has second-level qualifications in SAC.
Aaron Blockchain analyst Specialize in exchange ranking	Master of Applied Chemistry in East China University of Science and Technology. He served as financial risk control data analyst in Internet finance company, engaged in risk control modeling, categorizing credit information dimension data, and focused analysis of post-lending data, and optimization rules. He can make good use of R language, python, and SQL Conduct data analysis and is familiar with web crawlers. He is responsible for the ranking and rating of cryptocurrency exchanges, and analyzes and measures various dimensions of the exchange.
George Ling Blockchain analyst Specialize in Github Audit	A dual degree in automation and finance from East China University of Science and Technology, CDA data analyst. His main research direction is financial data analysis and model prediction. He used to be an internal auditor of Ping An Group and has two years of experience in auditing and risk management of IT and internet finance. He is an early virtual currency investor, and is good at using web crawlers, data analysis and other technologies to track and review all kinds of virtual currency Git library codes.
H.P. Wang Blockchain analyst Specialize in technology	H. P. Earned Master's degree in physics at Imperial College London and bachelor degree at Shanghai Jiao Tong University. During his graduated Research, he was a student of Prof. William Knottenbelt (Director of Imperial's Center for Cryptocurrency Research and Engineering, Member of CME CF BRR and BRTI core oversight team), and engaged in the study of quantum computing and the security of cryptocurrency. He is specialized in the intersection of quantum computing and cryptography (quantum key distribution, Post-Quantum Cryptography, etc.).
Steve Li Overseas operations	Master of Information System Management in IAE Grenoble, France, Bachelor of Arts in French from Shanghai International Studies University. During the period of master's study in France, he began to study blockchain technology. He once worked as a product manager in the BTCC USD exchange and has extensive experience in product design and operation. Now he is responsible for the team's operations and community building.

■ Investors (to be added)



9. Contact Us

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WeChat Official Account:	大炮评级社区 	WeChat customer service account:	DarpaRating_robot 

Appendix 1: List of Supporting Projects

The following project parties have clearly expressed their support to the ecological rating of DPRating (to be added):

