

**Generative AI Content Hub**

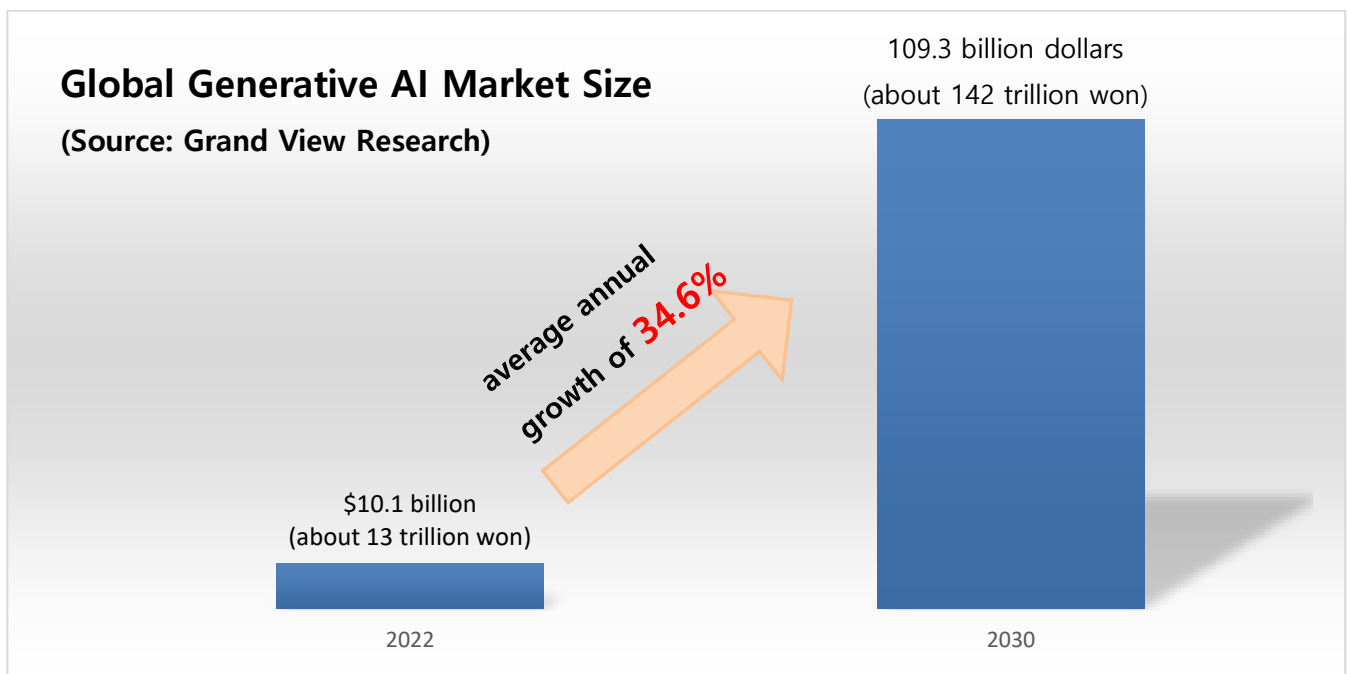
 **PIBBLE 2.0**

**ROADMAP**

# I. Background and Goal of PIBBLE 2.0

In recent years, the digital content industry has seen rapid growth along with the injury of artificial intelligence (AI)-generated content, piracy and protection issues have become more and more important.

Grand View Research, a global market research institution, predicted that the global generative AI market will grow 34.6% annually from about \$10.1 billion (about 13 trillion won) in 2022 to \$109.3 billion (142 trillion won) in 2030. In fact, at the same time as global big tech companies are actively investing in technology, new services that utilize that technology are being created, and the industrial field that utilizes generative AI is expanding.



In keeping with the changing times, PIBBLE Project is renewing its existing image-centric blockchain-based social sharing platform PIBBLE 1.0 to PIBBLE 2.0, an AI-based copyright revenue generation platform.

PIBBLE project aims to provide digital content creators with fair and transparent monetization through a new platform centered on AI-based copyright management services.

PIBBLE2.0 will expand from the image-centered service of PIBBLE1.0 to a "copyright-based AI revenue generation platform" that expands the scope of content copyright management, including text, image, video, and sound, and uses AI to create and distribute revenue structures by recording

various content types such as novels, webtoons, fanfic, and music, as well as content with secondary copyrights.

With the release of PIBBLE2.0, PIBBLE Team aims to expand its business by establishing collaborations and partnerships with various businesses that require copyright management, such as companies, schools, environmental companies, travel, and education, and to create a future where content creators and copyright holders can work together and receive fair compensation for their work.

The PIBBLE team is committed to building a future where content creators and rights holders can work together and be fairly compensated for their work.

PIBBLE2.0, which renewed in 2023, aims to become a hub for AI-based generative content where you can experience all commercially available generative AIs, including ChatGPT, which has been gaining attention recently.

It is a platform that leads the way in fair and transparent monetization of digital content and becomes a central topic of digital copyright, combining blockchain technology and AI technology to provide new licensing revenue streams for content creators and companies in a transparent and efficient way of ownership, transaction, and record management.

We want to provide content creators and businesses with new licensing revenue streams.



## II. PIBBLE 2.0 Target Users

The target users of PIBBLE 2.0 are as follows.

- **General public including professional content creators**  
All content creators who want to create and monetize all types of content, including text, images, audio, video, etc.
- **Copyright holders**  
All copyright holders who want to protect and monetize their works.
- **Users interested in blockchain technology**  
Users who are interested in a secure and transparent copyright protection system using blockchain.
- **Users interested in AI technology**  
Users who are interested in the creation and evaluation of creative content using AI technology and the future development and utilization of AI technology. PIBBLE 2.0 is aimed at users who are interested in creating and evaluating creative content using AI technology, and in the future development and utilization of AI technology. You can utilize AI technology to create creative content and predict the value of content evaluated by AI algorithms.
- **Users interested in the digital content market**  
Users who are interested in new trends and innovations in the digital content market.



# III. PIBBLE 2.0 medium-term roadmap

PIBBLE Project aims to evolve into an "AI-based digital content metaverse platform" that applies blockchain and AI technology.

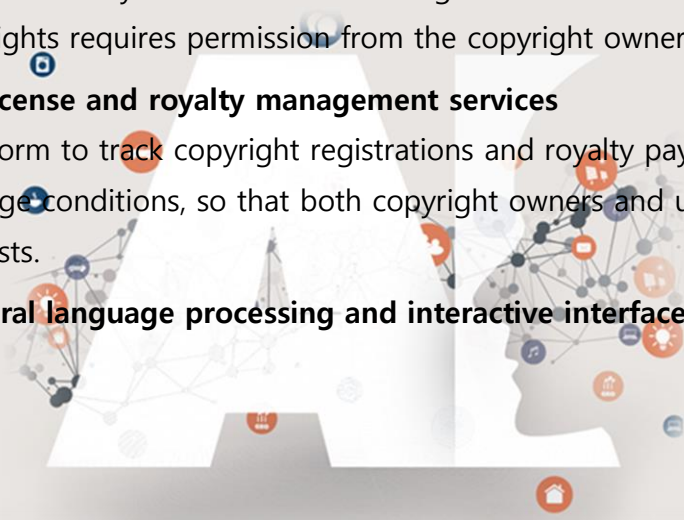
- Season 1: AI-based content ownership record and monetization platform
- Season 2: AI-based content marketplace
- Season 3: AI-based content creation collaboration platform
- Season 4: Building an AI-powered "copyrighted content" ecosystem

## 1. Season 1 : AI-based content copyright management and monetization platform

Copyright management for AI-generated content refers to tracking and recording the copyright of content created with AI technology. This includes the management of original copyrights that are modified or used to create secondary copyrights.

By utilizing NFT (Non-Fungible Token) technology, ownership verification and transaction tracking of AI-generated content is possible. This protects the rights of copyright holders and records and tracks revenue streams.

- **NFT-powered Content Ownership**  
Implementing NFT technology to verify ownership of AI-generated content and record transactions, and implementing a system to track copyright usage and ensure appropriate fees are paid to copyright holders.
- **Content Upload and NFT Conversion**  
Users upload content and convert it to NFTs with blockchain copyright.
- **Copyright record management**  
Copyright record management for human creations and products created by AI.
- **Copyright record management of secondary works**  
Management of secondary works that use existing works to create new works. Use of secondary copyrights requires permission from the copyright owner and payment of a fee.
- **Implementing license and royalty management services**  
Providing a platform to track copyright registrations and royalty payments, and to set and manage usage conditions, so that both copyright owners and users can protect their rights and interests.
- **Implement natural language processing and interactive interface with ChatGPT**





## 2. Season 2 : AI-Powered Content Marketplace

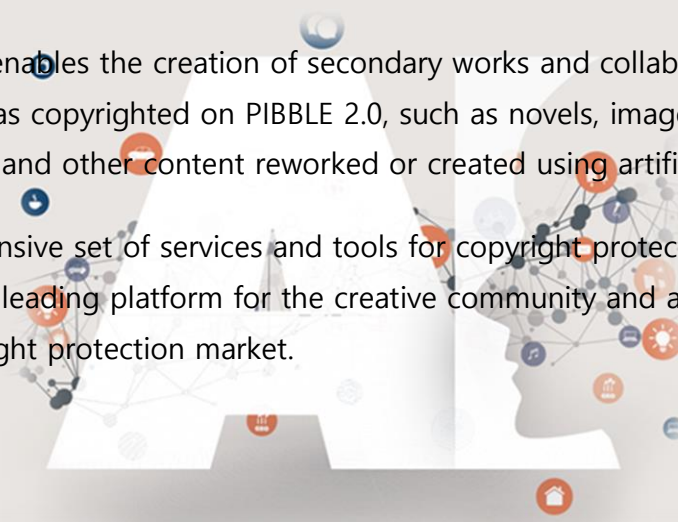
An AI-powered content marketplace is a platform that uses blockchain and NFT (Non-Fungible Token) technology to track and manage the ownership and licensing of content, protecting the rights of content creators and allowing them to trade.

- **AI-powered Content Marketplace**  
Allows users to sell and buy content creations such as images, videos, and audio, as well as products generated by AI.
- **AI-powered Content Distribution**  
Distributes content creations and AI-generated products to various platforms and channels, and manages content distribution through smart contracts.
- **AI-based Content Licensing**  
Allows users to license AI-generated content for commercial use.
- **Develop advanced copyright management services**  
Develop advanced copyright management services such as automatic copyright registration, real-time tracking, and secondary derivative copyright through AI technology.
- **The security and protection of copyrights**  
Integrating advanced encryption and blockchain technology to enhance the security and protection of copyrights on the platform
- **Create a Community Forum**  
Create educational materials, guides, and community forums for content creators to ask questions and share experiences to help them better understand copyright law and the process of registering and protecting their works through newly created AIs, including ChatGPT.

## 3. Season 3 : AI-based content creation collaboration platform

The PIBBLE 2.0 platform enables the creation of secondary works and collaborative works by utilizing NFTs registered as copyrighted on PIBBLE 2.0, such as novels, images, characters, likenesses, videos, music, and other content reworked or created using artificial intelligence (AI).

By providing a comprehensive set of services and tools for copyright protection and management, PIBBLE 2.0 will become a leading platform for the creative community and a catalyst for innovation and growth in the copyright protection market.

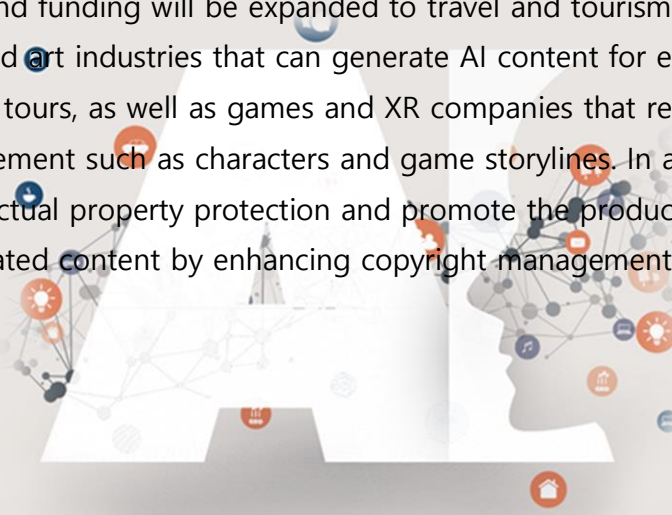


- **AI-powered content (co)creation tool service**  
AI-based co-creation service that supports the production of copyrighted AI creations and AI co-creations created by multiple people.
- **AI-powered Co-creation Market Platform**  
AI-powered co-creation market platform ensures transparency and fair trade for collective works through co-ownership of copyright and co-creation, and security of content ownership and licensing.
- **AI-based content financing**  
Cloud funding and funding system for collaborative projects generated by multiple users and AI.
- **Licensing and Royalty Management**  
Providing licensing and royalty management services to enable copyright owners to set terms and conditions for the use of their works and receive fair compensation.
- **AI-powered Content Discovery**  
Enables users to discover and explore new AI-generated content through personalized recommendations and search.
- **AI-powered advanced user experience and analytics**  
Develop advanced analytics and reporting tools to enhance the user experience by adding features such as user-specific recommendations, social sharing, and community engagement, and to help rights holders better understand the use and performance of their works

#### 4. Season 4 : Building an AI-powered "copyrighted content" ecosystem

PIBBLE 2.0 expands the reach and impact of the creative and copyright industries

Pibble's AI-based content ecosystem will be expanded to primary customers with copyright-based use motivation such as content creators, copyright owners, companies and organizations, consumers, co-creators, and funding will be expanded to travel and tourism. It can also be expanded to museums and art industries that can generate AI content for exhibitions and collections such as virtual tours, as well as games and XR companies that require AI-generated content copyright management such as characters and game storylines. In addition, the company aims to strengthen intellectual property protection and promote the production, distribution, and monetization of AI-generated content by enhancing copyright management and expanding copyright industries.



- **Updating the platform for copyright protection of AI-generated content**  
Expanding the platform to include AI-based content distribution, licensing, financing, and discovery, and enabling users to monetize AI-generated content more broadly within a comprehensive ecosystem.
- **Expanding the Market for Partnerships and Collaborations**  
Expanding partnerships and collaborations with organizations and institutions in the extended creative and copyright industries to increase the market reach of PIBBLE 2.0
- **Research and Development on AI Content and Copyright Protection**  
Research and development to apply new perspectives and interpretations on AI content and copyright protection as it is constantly being created.
- **Educational Resources and Community Forum**  
Providing educational materials, guides, and community forums to help content creators better understand copyright law and the registration and protection process.
- **Legal and Regulatory Compliance Monitoring Legal and Regulatory Compliance Monitoring**  
Continuously monitor the legal and regulatory landscape for AI-generated content and copyright protection, and make necessary updates to the platform to ensure compliance





# IV. 2023's Short Term Roadmap

## 1. 2023 Q1: 2023-01-01~2023-03-31

- Design and development of copyright registration and monetization of contents including AI products
- Record content copyrights such as text, image, video, audio, etc. and copyright NFTs for AI products
- Application of GPT Chatbot
- PIBBLE Wallet upgrade, multi-chain expansion including NFTs
- Burning PIB tokens collected through PIBBLE token economics

## 2. 2023 Q2: 2023-04-01~2023-06-30

- PIBBLE Whitepaper 2.0 Upgrade: Development Roadmap for AI Generation Sharing and Monetization
- Establishment of PIB Governance DAO: DAO system for PIB holders
- Apply AI design for 'Activity Index' in PIBBLE platform: Data of PIBBLE app user activity data accumulated over the years is upgraded into a meaningful 'Activity Index' and AI is applied.
- Partnerships to expand the use of PIB tokens
- Burning PIB tokens collected through PIBBLE token economics

## 3. 2023 Q3: 2023-07-01~2023-09-30

- PIBBLE wallet 2.0 multi-chain expansion
- Expanded PIBBLE 2.0 AI design: Designed and phased in AI-based license management, AI-based content distribution, and AI-based content marketplace, including AI copyrighted NFTs.
- Burning PIB tokens collected through PIBBLE token economics



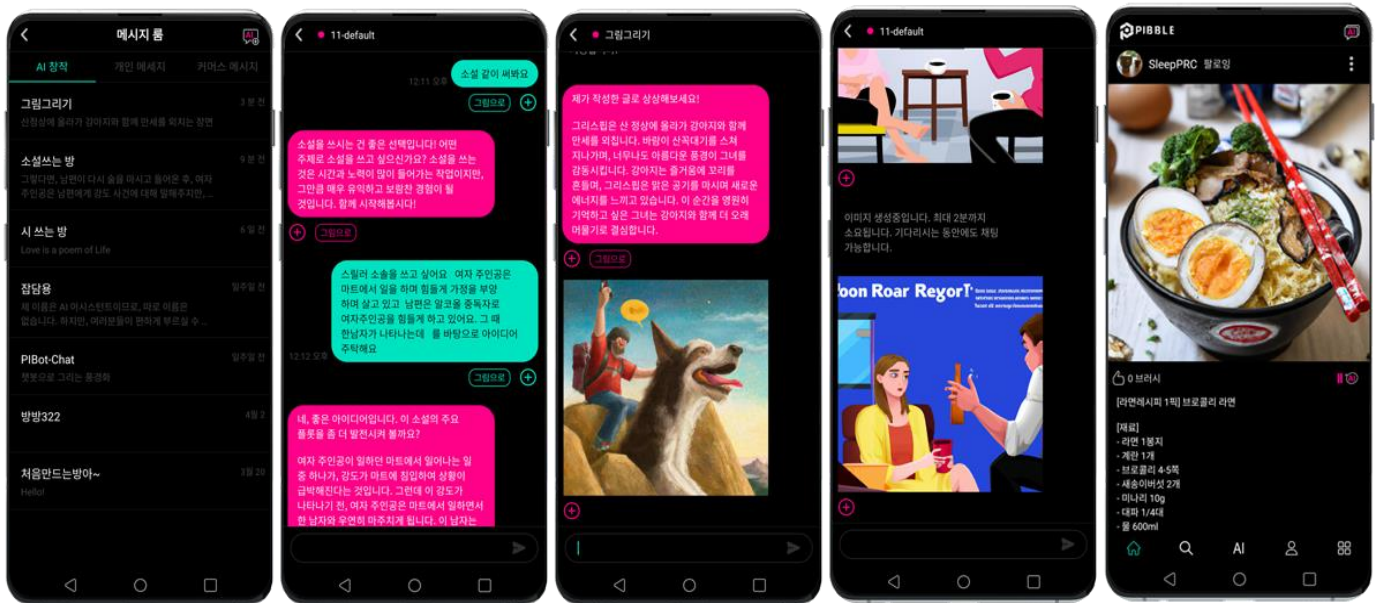
#### 4. 2023 Q4: 2023-10-01~2023-12-31

- PIBBLE2.0 year-end award ceremony and event held
- Established partnerships to expand the use of PIB tokens
- Burning PIB tokens collected through PIBBLE token economics



# References 1. PIBBLE 2.0 development status

updated 2023. 04. 26



## context enrichment

- Generate sentences with the help of AI in the body text when uploading photos and videos.
- Based on the hashtags you enter, we generate appropriate sentences for social media.
- You can then edit the sentences and use them when uploading.

## Story enrichment

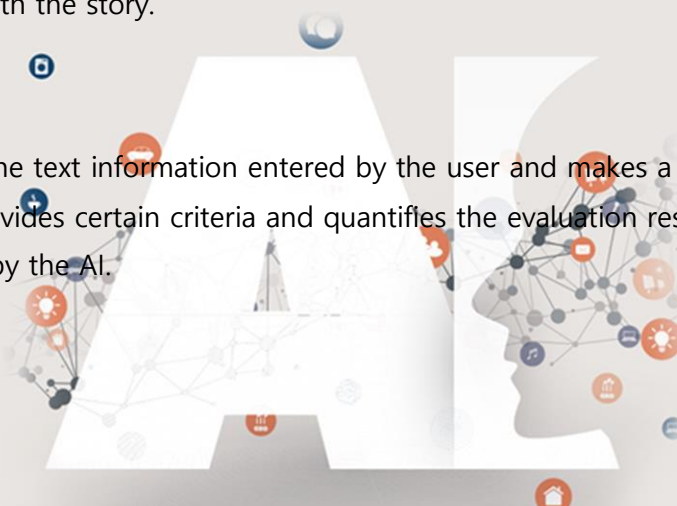
- Chat is basic. You can enrich it with your own ideas and imagination.
- When you talk to the AI, you can give it a synopsis and it will create a more specific story.
- You can create and post serialized novels, poems, and even recipes with AI's creative ideas.

## AI image fulfillment

- You can express the feeling of the picture you imagine in the text, and AI will draw a picture similar to the content of the text.
- You can post the finished picture immediately, and it can be utilized as an illustration by interweaving it with the story.

## AI evaluation

- The AI analyzes the text information entered by the user and makes a sentiment evaluation.
- The company provides certain criteria and quantifies the evaluation results based on the judgment made by the AI.



## References 2. PIBBLE 2.0 development status

updated 2023. 05.01

CARA application development in progress. Scheduled to be applied in 2Q23 2Q.

CARA, which stands for Creative AI Right Association, is a secure and reliable blockchain-based certificate for the ownership of digital content.

CARA utilizes blockchain technology to provide secure and reliable authentication of the ownership of content. It also provides an opportunity to monetize content if it is valued and licensed. CARA, combined with the AI technology provided by Pibble 2.0, records the ownership and movement of content, enabling CARA holders to securely record and monetize their content.

The Pibble 2.0 service will record the ownership of future AI creations through CARA on the blockchain and issue them as NFTs, leaving a record of future ownership verification. These records can be used as evidence in the event of copyright infringement.

In particular, with the development of AI technology, copyright issues for AI-generated content are becoming more and more important, and CARA certificates are expected to emerge as an important tool for copyright protection and monetization in the digital content market. The CARA certificate provides technical support for copyright protection, but does not assume legal responsibility.





On May 31, 2023

**It has been renewed**

from PIBBLE 1.0,  
an "Blockchain based monetized image ecosystem"

**to PIBBLE 2.0**  
**an "Generative AI Content Hub"**

The next chapter is  
the PIBBLE 1.0 white paper for historical reference.





# **BLOCKCHAIN BASED**

## **MONETIZED IMAGE ECOSYSTEM**





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# I. Abstract

Nowadays, so-called “shared” files are being used freely without any monetary compensation - PIBBLE questions whether everyone had agreed to this?

Ever since Napster enabled music files to be freely shared in 1999, digital content-related technologies easily enabled sharing music, and even video files without damaging or compromising the original. Also, when Apple released the iPhone 3G to the world in 2008, a camera was essentially put in everyone’s hands, and photos taken by ordinary people became one of the most popular contents.

However, despite such rapid developments, the image market has yet to be institutionalized. In the typical image market ecosystem known as the ‘social image market’, there are hardly any rightful rewards provided to users and their creations. Instead, most of the profits are directed towards platform providers. In addition, there are fewer opportunities for professional creators and aspiring indie groups.

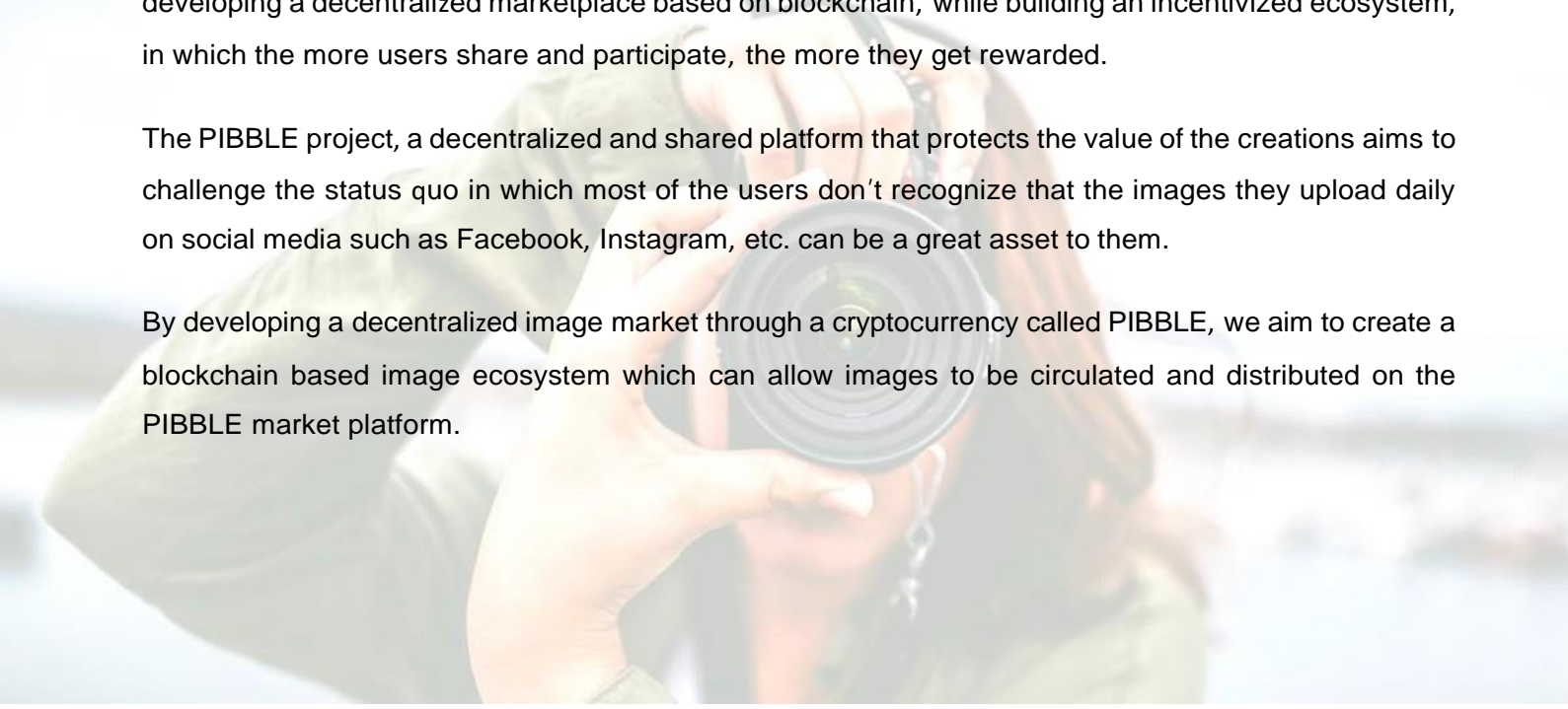
The PIBBLE project represents the interests of the following groups of people:

1. Individuals who are leading the quantitative image market through the sharing of images and videos in social media;
2. Entertainers whose portrait rights connects directly to their branding value;
3. Experts in the stock image market, or the traditional paid image market that needs a change; and
4. Indie artists who are aspiring to pursue dreams of creation and develop them into careers.

While allowing groups above to communicate with each other within the PIBBLE Ecosystem, PIBBLE aims to reorganize the existing market so that each group member in the ecosystem may be properly compensated for the images and works they have created. To do this, the PIBBLE project is planning on developing a decentralized marketplace based on blockchain, while building an incentivized ecosystem, in which the more users share and participate, the more they get rewarded.

The PIBBLE project, a decentralized and shared platform that protects the value of the creations aims to challenge the status quo in which most of the users don’t recognize that the images they upload daily on social media such as Facebook, Instagram, etc. can be a great asset to them.

By developing a decentralized image market through a cryptocurrency called PIBBLE, we aim to create a blockchain based image ecosystem which can allow images to be circulated and distributed on the PIBBLE market platform.



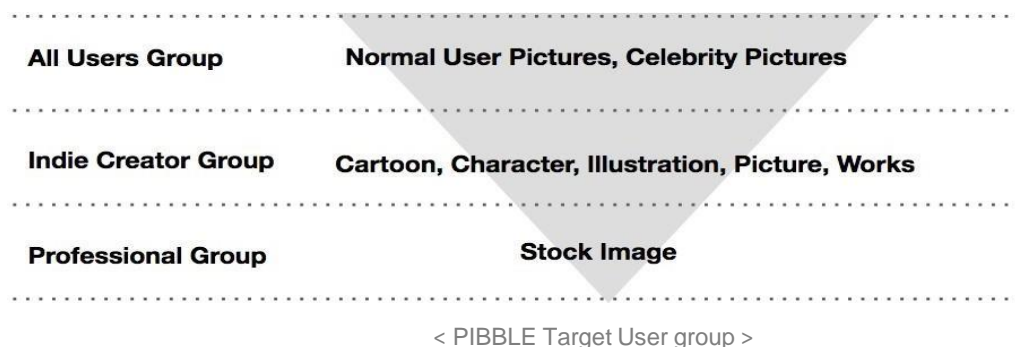
## 2. Image Market

### 2.1. PIBBLE Project Target

We are living in an 'image culture' which is being newly created through ongoing social media activities. Standing in a 'visual superiority zone', we share our perspectives with others through pictures and gifs rather than speech or words.

The PIBBLE project starts with such popular images. PIBBLE is a blockchain-based cryptocurrency that brings together image creators and consumers, compensating them for the work they create, use and enjoy. The types of images that the PIBBLE project handles are not only a picture or a stock image, but also various kinds of images such as cartoons, characters, illustrations, graphics, pictures of entertainers (including singers, actors, etc.) and video stills.

The users in the PIBBLE project are comprised mostly of ordinary individuals that do not have clear concepts of portrait rights, but it also includes entertainer groups who have a difficult time exercising their portrait rights online, expert groups who had been managing business through images, as well as indie groups who have had little opportunity to have their creations valued.



Creators in the PIBBLE Project will receive rightful rewards for their work, and this will be done through building a blockchain based image ecosystem.

This will be achieved by creating a community ecosystem where anyone can participate and rewards users as they participate, and by providing blockchain-based social image market to users. Furthermore, to experts, PIBBLE will serve as a platform that protects their rights to creative works

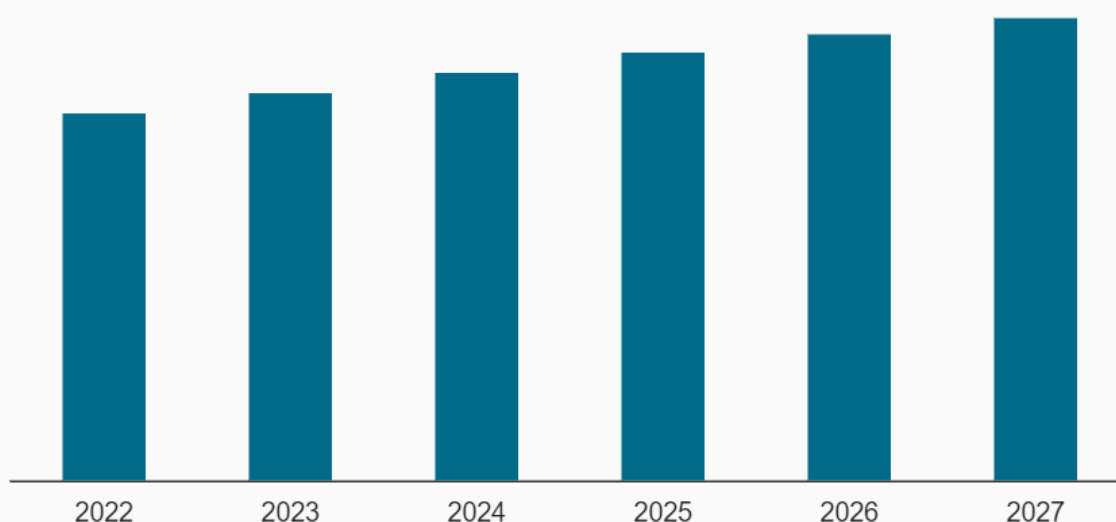
and effectively connects image sellers and consumers. The PIBBLE Project's services uses blockchain technology and individual techniques and image tracking system to limit the image's unauthorized use and let users to send images consensually. Through these methods, the PIBBLE project will develop into a blockchain based image ecosystem that merges the social media market, image market and all user bases.

## 2.2 Image Market Status

### Social Image Market

As the user base for social media is growing at a breakneck pace with Facebook now having over 2 billion users, profits generated through social media worldwide is also increasing rapidly. According to 'Grand View Research', a global market research organization, social media such as Facebook, Twitter and LinkedIn aggregated global advertisement revenues of approximately USD 186 billion on 2021 and expected to reach USD 350 billion by 2027, CAGR of 10.9%.

Global Online Advertising Market Size, 2022-2027 (in US\$ Billion)

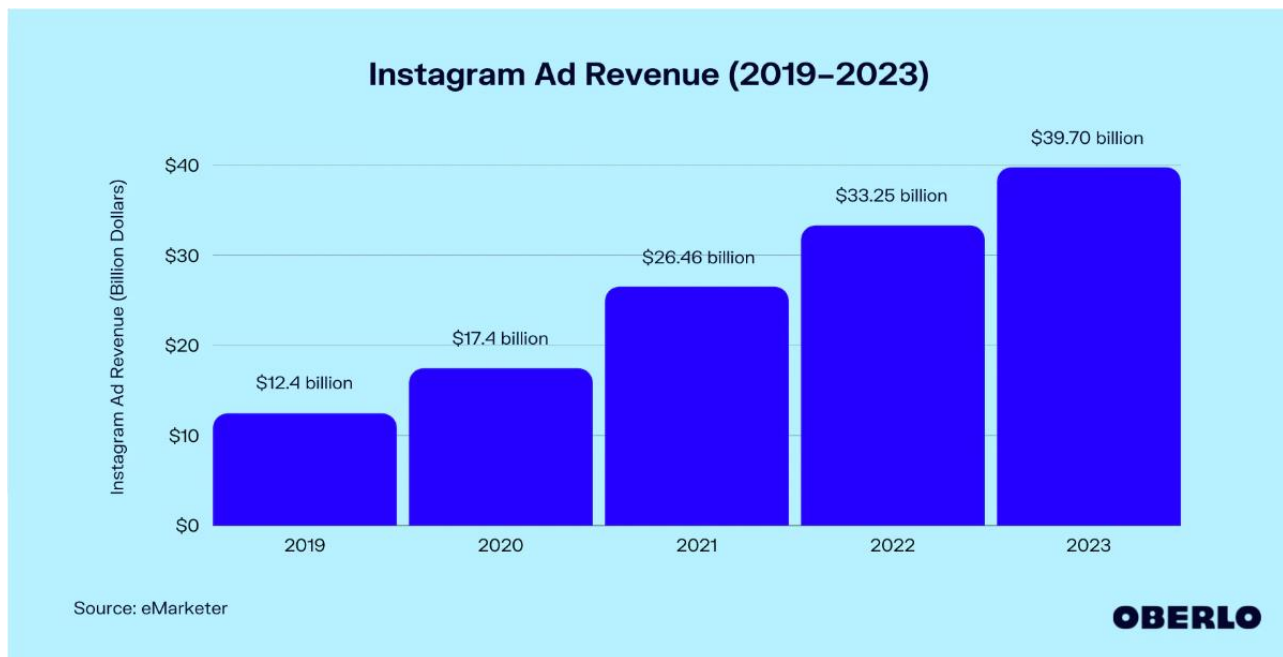


[www.imarcgroup.com](http://www.imarcgroup.com)

< Social Media Advertising revenues >

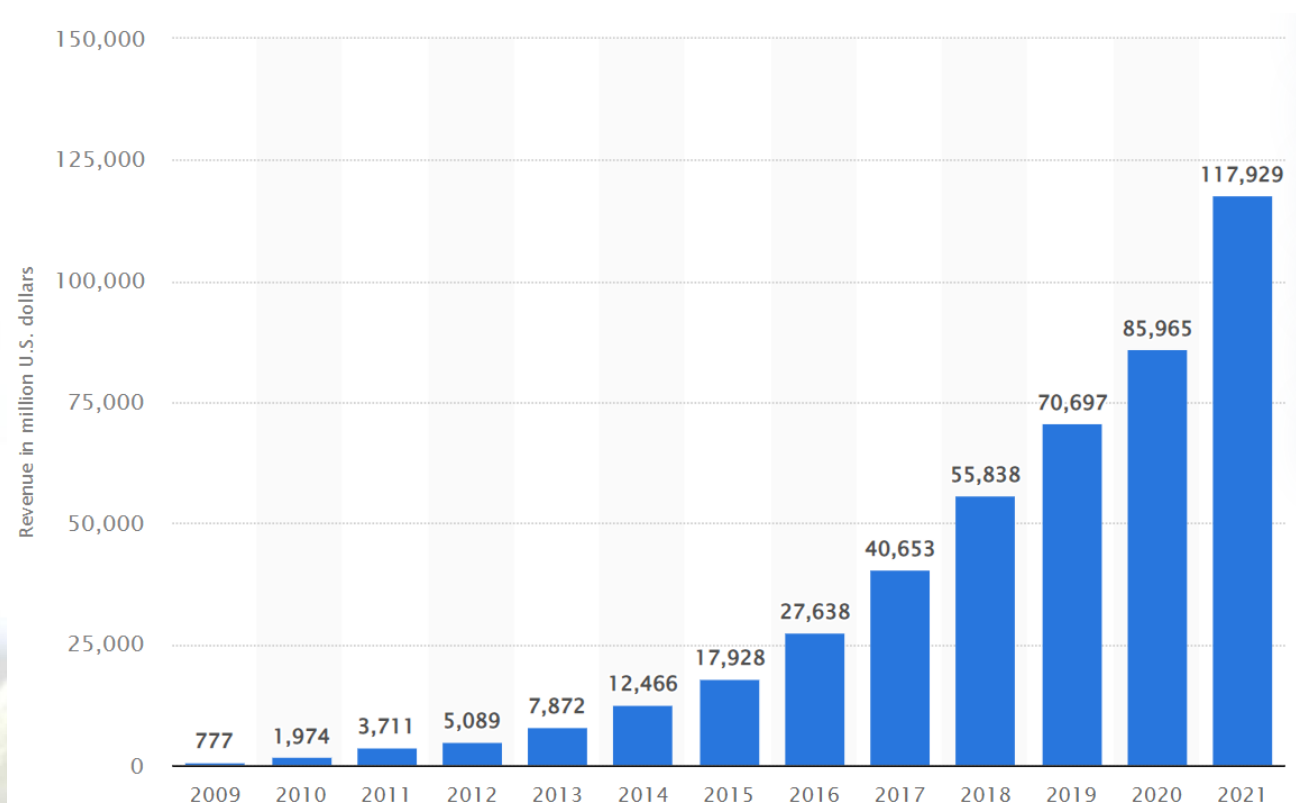


In the case of Instagram, currently in 2021, has expected revenue of USD 47.6 billion and 90% more revenue come from mobile advertising business.



< Annual Instagram total revenue, source OBERLO >

Also, Facebook's 4Q 2017 revenue was USD 12.97 billion, which is a 47% increase from same quarter in the preceding year, of which 99% had been attributed to advertisement revenue.

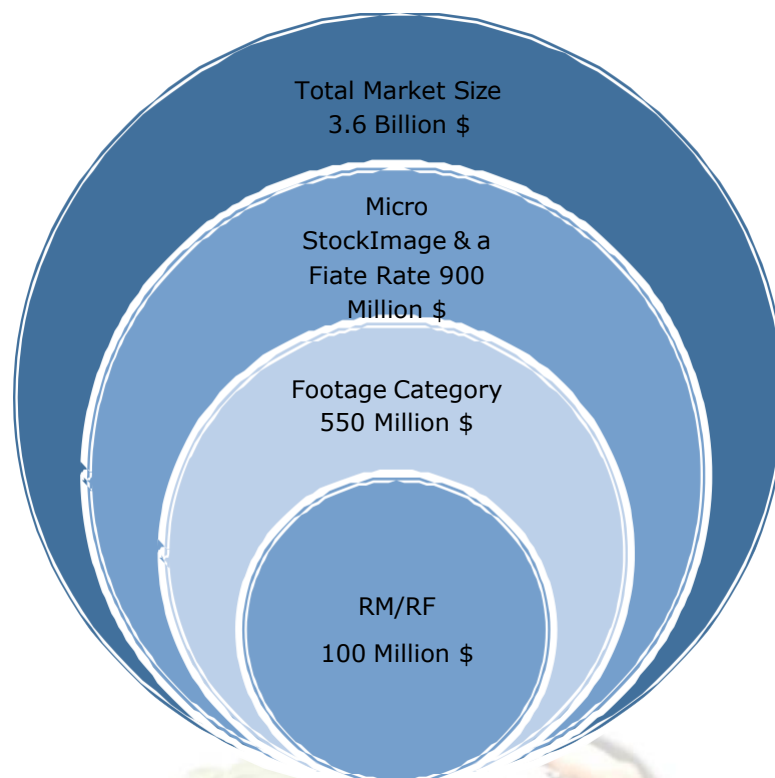


< Facebook revenue in 2021 >

Through various instances, it can be seen that the number of users and the social media platform provider's revenues are directly proportional. However, it is not structured to distribute rewards to participating users, but rather most of profits are taken by platform providers.

## Paid Image Market

According to 'Coherent', a marketing research facility, the global stock image market is estimated to reach \$ 3.6 billion by 2022. The most significant portion of transactions thereto was micro-stock images and flat rate sales, which recorded sales of approximately \$ 900 million. Video image (footage) related sales, which are very likely to grow in the future, totaled \$550 million, and the relatively high- priced RM (royalty managed)/ RF (royalty fee) market was \$ 100 million.



< 2021 Stock Image Market Volume, source: Coherent >

Experts predict that the stock image market will continue to grow. Coherent expects the stock image market to grow at an average annual rate of 5.2% by 2027, reaching \$ 4.7 billion. With the development of communication-based technologies such as the internet, more images will be created and the still images market as well as the video image market will expand. The growing need for visual effects in the media field, such as marketing, is also one of the factors that forecasts the growth of the market. Appropriate use of images can enhance the purchasing power of the products and public relations effect.

The PIBBLE project is based on a global stock image market which is worth \$ 3.6 billion. However, the PIBBLE project will break the frame of the existing stock image industry and introduce a new industrial structure that enables not only professionals but also ordinary people to buy and sell their images in the PIBBLE Ecosystem



## 2.3 Problems of centralized Social Media Platform

### Excessive growth of commercial activities used as a marketing tool

Social media platforms have become a medium for commercial advertisements, a place for communication, exchange of opinions and sharing information. Consequently, there has been a rise in consumer's dissatisfaction as well as damages incurred from the use of social media. According to the Korea Consumer Agency, out of 500 consumers, 63.8% have answered "experienced dissatisfaction" from the use of social media platforms and 82.4% of such dissatisfaction was caused by "excess amount of commercial posts".

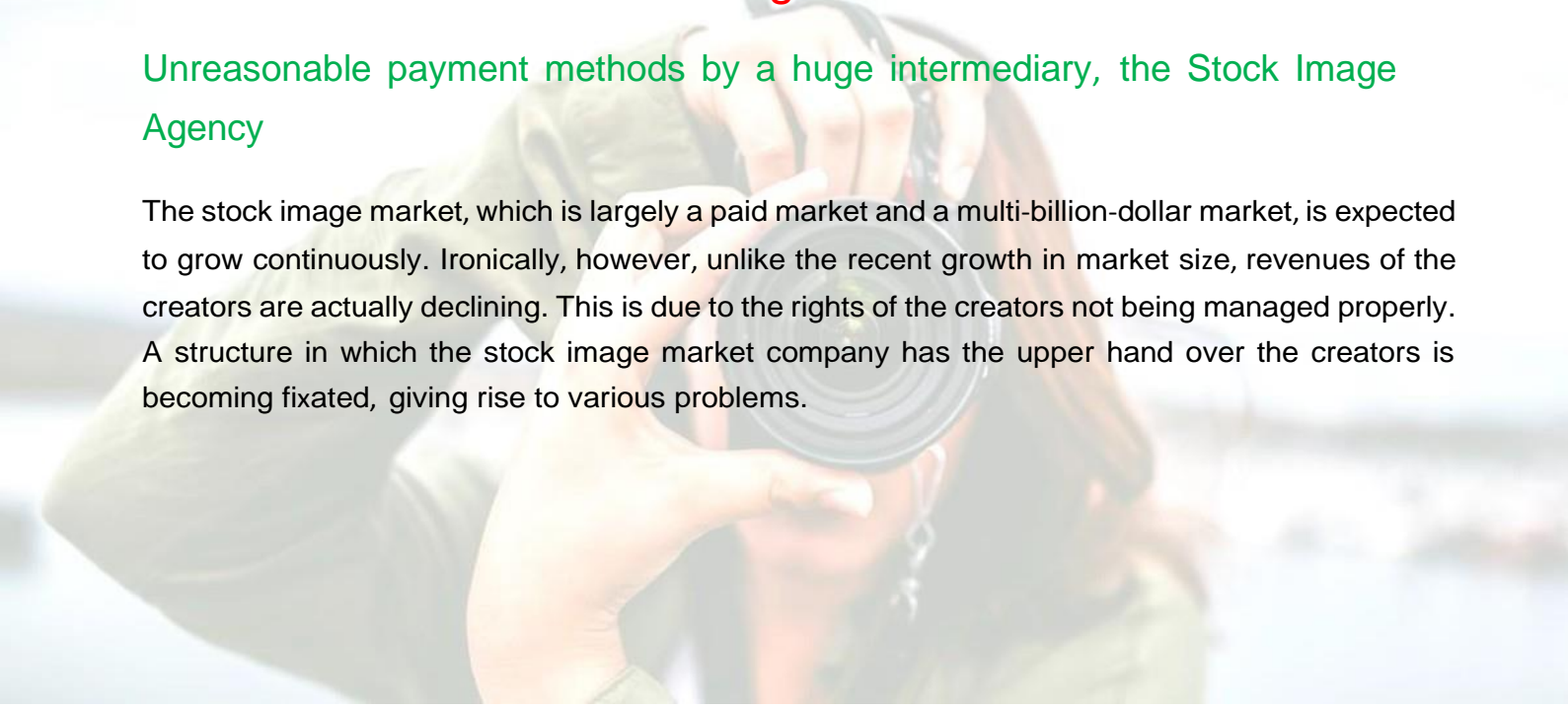
Further, as seen on the chart above, a case in which a platform provider returning massive profits generated through marketing back to its users is extremely rare. A monopoly on profits by platform providers is also a prevalent problem with the social media market. Due to an increase in advertisement exposure frequency, platform provider's profit increases. However, ironically, the user's usage environment is becoming increasingly worse.

### Indiscriminate Leakage of Personal Information and User Activity History


With Facebook's user information leakage incident which lead to the EU to bring GDPR into effect, social media's personal information leakage is done opposed to a user-user agreement and beyond agreed limits. Platform providers monopolize user's personal information and make profits through advertisements and selling user data. In that process, transparency is inhibited, questioning the platform provider's ethical and legal responsibility. This is a problem caused when centralized services undertakes excessive business activities and allows individual's private information to be shared with companies, regardless of our actual wishes or preferences.

## 2.4 Problems of the Paid Image Market

### Unreasonable payment methods by a huge intermediary, the Stock Image Agency



The stock image market, which is largely a paid market and a multi-billion-dollar market, is expected to grow continuously. Ironically, however, unlike the recent growth in market size, revenues of the creators are actually declining. This is due to the rights of the creators not being managed properly. A structure in which the stock image market company has the upper hand over the creators is becoming fixated, giving rise to various problems.



Most large stock image companies are introducing a subscription system to compete against companies providing images for free. This sales method has its perks since numerous people can use quality images at low rates. However, a significant portion of the revenue is taken by the stock image companies as brokerage commissions, and due to the lower price of sold images, the profits of the original creators decrease significantly. In addition, one of the many problems in the current market is that it takes a long time to calculate their profits; for example, it takes about 90 days even on “Shutter Stock,” a leading company in the stock images market. Meaning, users are subject to transaction restrictions due to such payment methods. For these reasons, creators have two choices, namely to look for other agencies which guarantee better treatment, or to simply accept the situation as it is.

## Opaque Selection and Pricing System of Upload Image

Today, stock image companies permit users to upload their images only if the images pass their own internal review. Companies implement their own review standards, and creators have to abide by them which can't help being regarded as irrational since a big portion of stock image company's profits rely on creators uploading their work. The review procedures take a long time and certain companies often delete photos that has already been approved without proper notice. For these reasons, it is difficult for indie creators and general people to assert the value of their own creations or secure their rights because the market itself starts with an opaque selection criterion.

PIBBLE will aim to solve this problem by transparently disclosing the process of images that are being uploaded which is directly linked to the livelihood of creators and through voting system within the PIBBLE Ecosystem.

## Evaporation of rights due to the inability to identify the distribution process of creation

Intellectual properties can be popular stock images with a lot of effort put into them or even popular cartoon characters. Both can steadily make profit unless the creators manually delete them. As a result, the needs of those who work as a full-time stock image creator has increased steadily. While images are valuable assets to many creators, there is virtually no device or system to protect their rights due to the absence of a proper tracking system and no ways to manage unauthorized images.

PIBBLE aims to fix this by using our self-developed image tracking system which was operated for years and we plan to expand the reach of this blockchain solution. PIBBLE will provide a service that offers protection to not only professionals, but even to regular people from copyright infringement which can result in creating profitable models for them.







## 3. PIBBLE Ecosystem Summary

The PIBBLE ecosystem combines media contents sharing social platform with blockchain technology, thus creating the following ecosystem.

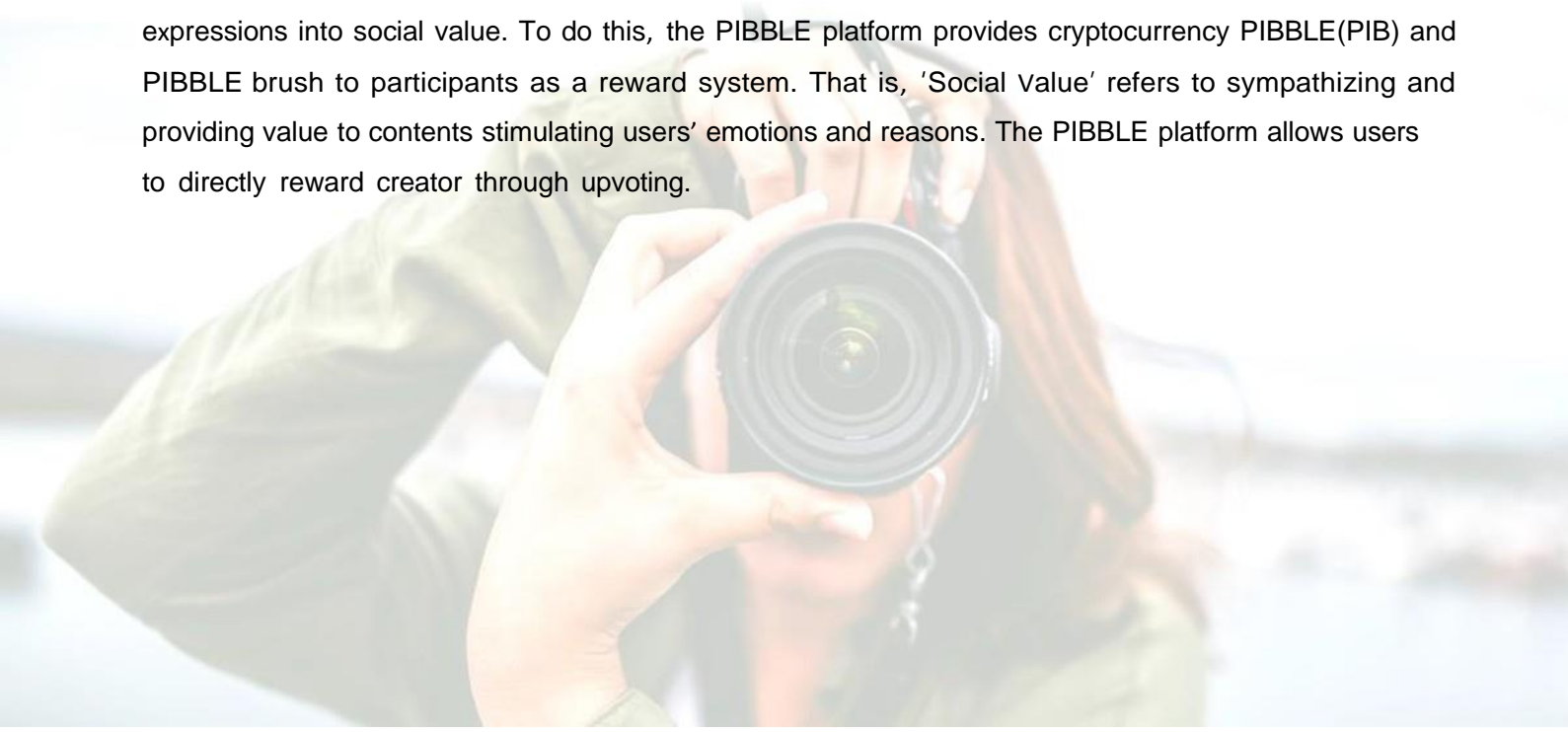
- Reward system for social value
- Blockchain based P2P commerce
- Crowdfunding using cryptocurrency
- P2P marketing system between social participants
- Reward for contents curation
- Marketplace expansion for experts

The PIBBLE platform is a social sharing platform that manufactures and consumes media contents similar to Instagram. But while Instagram has its data centralized, the PIBBLE platform has user to user rewards and empowerment methods by means of adopting a decentralized social platform.

A rewarding platform using blockchain and cryptocurrency in blogs known as STEEMIT, is already in existence. The PIBBLE platform combines rewarding platforms like STEEMIT and popular contents such as images, thereby constructing a more comprehensive rewarding social platform ecosystem.

### 3.1 Reward System for Social Value

Participants on the PIBBLE platform create social value by uploading and sharing media contents such as photos or videos. In other words, platform participants share uploaded contents and express their opinion through reactions such as 'likes' and comments, and the PIBBLE platform converts these expressions into social value. To do this, the PIBBLE platform provides cryptocurrency PIBBLE(PIB) and PIBBLE brush to participants as a reward system. That is, 'Social Value' refers to sympathizing and providing value to contents stimulating users' emotions and reasons. The PIBBLE platform allows users to directly reward creator through upvoting.

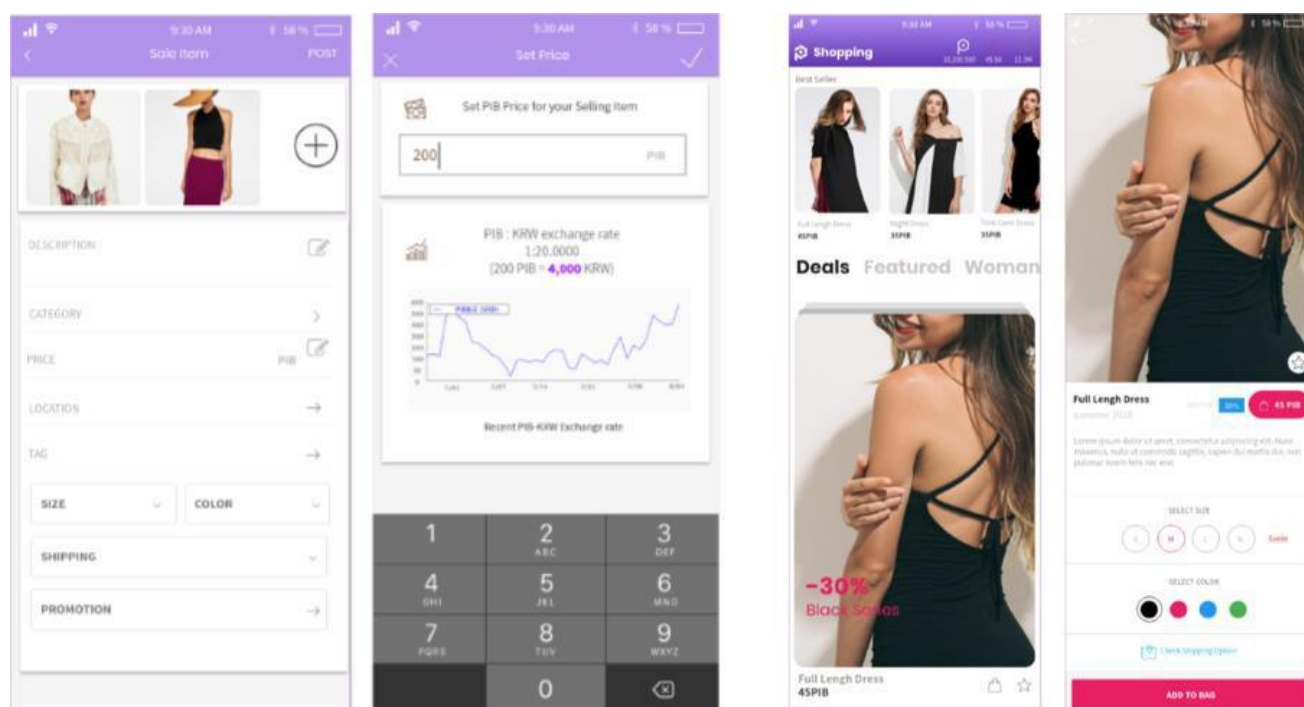




## 3.2 Blockchain based P2P Commerce

In Instagram, users may add purchase buttons on their posts, so a lot of products are being posted as contents and followers consume these advertising contents, leading to purchases.

PIBBLE provides improved P2P commerce mechanisms for posting commercial contents and sales. Commerce contents can be purchased directly from the platform using PIB coins or brush, providing secure payment features including cancellation, edit and final approval of payment.



< Add Shopping(left) / Shopping Bag(right) >

## 3.3 P2P Marketing System between Social Participants

PIBBLE, unlike other centralized platforms, does not use user's data for advertisements. Rather, if a participant wishes to appeal his contents for business purposes, such participant may use reward system such as FollowMe, GiftBrush, BrushTag, etc. to reward users with brush/coin as a reward for following his profile.

This advertisement rewards structure is expected to be valuable for its innovative P2P marketing as platform expands.

## 3.4 Crowdfunding with Cryptocurrency<sup>1</sup>

PIBBLE participants can create crowdfunding projects within the PIBBLE platform to raise necessary funds. Creators may post stories involving, the reason behind crow-funding, the schedule, the target amount, and reward, etc. and participants can send PIB coin or brush to support funding. This story funding includes photo trips, fundraising for charity, etc.

In particular, the PIBBLE foundation will select one of many photo trips and charity crowd-fundings, giving them extra funding to contribute as a social enterprise.

The image displays four sequential screenshots of a mobile application interface for creating a crowdfunding project. Each screen has a purple header with the title 'Create Funding Project' and navigation options.   
1. **Welcome your first project!**: A welcome message followed by instructions to add a photo or video.   
2. **1. Basic**: A section for describing the project, including fields for category, project title, summary, location, funding goal (in PIB), duration, and tag.   
3. **2. Rewards**: A section for setting rewards, including fields for reward title, amount (in PIB), description, and delivery date.   
4. **3. Story**: A section for telling about the project, featuring a text editor with various formatting options (bold, italic, underline, etc.) and a keyboard at the bottom.

< Crowdfunding >

## 3.5 Contents Curation Reward

PIBBLE's social participants can curate a collection even though they don't post any pictures of their own. Participants can use other's contents with appropriate themes (BGM, speed, effects, etc.). These collections can be seen by other users and upvoted, thus providing a brush as a reward. This reward is distributed not only to the curator but also to original author, therefore helping reward ecosystem

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<sup>1</sup> Please note that Pibble is not planning to provide this crowdfunding feature in Singapore due to certain legal and regulatory considerations.



to expand.

### 3.6 Expand Expert Marketplace

The PIBBLE platform offers level based standards for users. Among those levels, Professional level users may upload contents in Full HD and sell their contents while having their copyright protected.

The PIBBLE platform uses BitDNA to protect the copyright of professional contents, by extracting characteristics of contents, hashing its value, and writing the hashed value into blockchain. In other words, as this hash value is unique to the content, comparing multiple hash values can confirm whether a content is a duplicate.

Also, professional contents' use of copyright, movements since its creations are managed on the blockchain network. Therefore, ownership data of copyrights are managed together. Because it is impossible to edit or delete records if image's movement process is written real-time on the blockchain network.





## 4. PIBBLE Platform Components

To construct the PIBBLE ecosystem, PIBBLE presents an evolved social sharing platform using blockchain technology. In particular, the PIBBLE platform has unique features such as a photo sharing service, P2P reward and purchase system using cryptocurrency, P2P commerce and crowdfunding and professional marketplace.

The PIBBLE platform is constructed with the following elements to implement above features.

- Evolved reward system
- Participant level system
- Cryptocurrency payment system
- Ethereum, Klaytn network and hybrid system
- Mainnet

### 4.1 Evolved Reward System

'Provide coins to participants who uploaded photos?'

Many blockchain services try to expand and vitalize their ecosystem by rewarding participants with coins. But it exposes ecosystem to insoluble natural limitations and abuse.

For instance, some of participants might over issue meaningless data to get more rewards. If photo service like Instagram added rewards to their service, a significant number of users will upload dummy files to get rewards.

The PIBBLE Platform propose two kinds of brush as a solution to this reward system conundrum.

- Green Brush
- Red Brush

The Green Brush is a reward point given to participants for their activities. However, this Green Brush is unlike other mileage or point system in that it cannot be used for user's own good. Participants must use Green Brushes that they have been rewarded with by contributing to platform and sharing contents for other participants.

For instance, one contributor rewards someone else's photo or video with an UpVote. Thereafter, the Green Brush will automatically turn into a Red Brush while getting transferred to someone else. In



other words, if I give 1,000 Green Brushes to person 'A', it is equivalent to person A getting 1,000 Red Brushes.

The Red Brush can also be used within the platform like PIB token. That is, it can be changed to PIB token in wallet or used in activities such as purchasing products.

The PIBBLE Brush cannot be traded on exchanges and can only be used within the PIBBLE Platform. PIBBLE brush can exercise influence proportional to Brush balance in community activities, especially in voting, and can be given to other account

Even with this method, abuse is still possible. For example, by abusing the Green Brush -> Red Brush conversion structure, it is possible to give a particular account excessive amount of Green Brushes. To prevent such abuse, both Green Brushes and Red Brushes have limits based on user's level. In other words, user with more participation and contribution has higher limits, thus able to earn and give larger amount of Brushes.

Chart below describes various activities to earn PIBBLE Brushes. The amount of PIBBLE Brushes earned is calculated on number of conditions, such as participation records, activity records and level.

#### Activity within the platform and creation of Brush

| Object     | Activity          | Transfer To | From          | To           |
|------------|-------------------|-------------|---------------|--------------|
| Photo      | upload            | Brush green | Site          | Uploader     |
|            | upVoting          | Brush red   | User          | Uploader     |
|            | Collected         | Brush green | Site          | Uploader     |
| Video      | Upload            | Brush green | Site          | Uploader     |
|            | upVoting          | Brush red   | User          | Uploader     |
|            | Collected         | Brush green | Site          | Uploader     |
| Live       | upVoting          | Brush red   | User          | Caster       |
|            | Sticker           | Brush red   | User          | Caster       |
| Curate     | upload            | Brush green | Site          | Uploader     |
|            | upVoting          | Brush red   | User          | Uploader     |
|            | Collected         | Brush green | Site          | Uploader     |
| Profile    | FollowMe(Promote) | Brush red   | Profile Owner | User         |
| Connect    | Acquaintance      |             |               |              |
|            | Close Friend      |             |               |              |
|            | Alliance          |             |               |              |
| (DownVote) | flag              | None        |               |              |
| Chat       | upVoting          | Brush red   | User          | Parent Owner |



|               |                      |             |              |               |
|---------------|----------------------|-------------|--------------|---------------|
|               | Sticker              | Brush red   | User         | Parent Owner  |
|               | Good                 | Brush green | Site         | Chat Owner    |
| Share         | Social Share         | Brush green | Site         | User          |
|               | Invite               | Brush green | Site         | User          |
|               | Refer                | Brush green | Site         | User          |
| Collection    | upVoting             | Brush red   | User         | Collector     |
|               | Good                 | Brush green | Site         | Collector     |
| Theme         | BGM                  | Brush green | Site         | Uploader      |
|               | Sticker              | Brush green | Site         | Uploader      |
| Buy           | Buy Item             | PIB         | User (Buyer) | User (Seller) |
|               |                      | Brush red   | User (Buyer) | User (Seller) |
|               |                      | Brush green | User (Buyer) | User (Seller) |
|               | Booking Place        | PIB         | User (Buyer) | User (Seller) |
|               |                      | Brush red   | User (Buyer) | User (Seller) |
|               |                      | Brush green | User (Buyer) | User (Seller) |
| Store         | Purchase Sticker     | Brush green | User         | Site          |
|               |                      | Brush red   | User         | Site          |
|               |                      | PIB         | User         | Site          |
| Tag           | Photo                | Brush green | Site         | User          |
|               | Place                | Brush green | Site         | User          |
| Cloud Funding | Invest               | Brush green | User         | Fundraiser    |
|               |                      | Brush red   | Site         | Fundraiser    |
|               | Contribute           | Brush red   | User         | Fundraiser    |
| Prize Event   | Won                  | Brush red   | Site         | Winner        |
|               |                      | Brush green | Site         | Winner        |
|               |                      | PIB         | Site         | Winner        |
| Wallet        | Transfer             | Brush red   | Wallet       | Wallet        |
|               | Exchange to Red->PIB | PIB         | Wallet       | Wallet        |
|               | Exchange PIB->Red    | Brush Red   | Wallet       | Wallet        |
| Level Up      | Level up             | Brush green | Site         | User          |

## 4.2 Participants' Level System

With performing various activities, participants in the PIBBLE Platform will earn points. Upon exceeding certain points, users will be promoted to the next level.

Activity elements related to levels are as follows.

- Contents Upload
- Uploaded Contents' reaction- Number of comments, Badge level, Number of Likes, Number of Collection
- Participation Rate- Participation rate about Media, Commerce, Crowdfunding, etc.
- Like, UpVote, Follow
- Green Brush Owned/ Spent
- Red Brush Owned/ Spent
- PIBBLE Owned/ Spent
- Number of Follower, Follow, Friends

Each level up promotion is determined by the number of cumulative points, and each level up gets harder as the user goes on to higher levels.

Level and Brush correlation (Example)

| LEVEL | Level Name   | Brush Green |         | Brush Red |         |
|-------|--------------|-------------|---------|-----------|---------|
|       |              | Earn        | Consume | Earn      | Consume |
| 1     | Bronze       | 300         | 500     | 100       | 0       |
| 2     | Silver       | 500         | 700     | 300       | 150     |
| 3     | Gold 3       | 800         | 1000    | 500       | 300     |
| 4     | Gold 2       | 800         | 1000    | 500       | 300     |
| 5     | Gold 1       | 800         | 1000    | 500       | 300     |
| 6     | Platinum     | 1500        | 2000    | 900       | 700     |
| 7     | Diamond 3    | 3000        | 4000    | 1500      | 1300    |
| 8     | Diamond 2    | 3000        | 4000    | 1700      | 1500    |
| 9     | Diamond 1    | 3000        | 4000    | 2000      | 1800    |
| 10    | Professional | 5000        | 6000    | 4000      | 2500    |



### 4.3 Cryptocurrency Payment System

Currencies used within the PIBBLE Platform are Brush and PIB Token. The PIBBLE Platform uses cryptocurrencies, making immediate payments with the least commission, and also provides escrow services for secure payments.

The Escrow Service is a service that makes final payment approval after visual confirmation of the product. Often used on a second-hand sale or gig by consumer's request.

### 4.4 Network and Hybrid System

The PIBBLE platform uses the Ethereum, Klaytn Network for payments systems and copyright protection. However, for users' immediate purchase system, purchases made within the platform is managed in hybrid systems such as central exchanges.

### 4.5 Mainnet

The PIBBLE platform uses the Ethereum, Klaytn Network, which has a firm user base and verification system. However, for the expansion of the PIBBLE platform, relocation to mainnet is being considered for further decentralized cryptocurrency transactions and more efficient transfers. If relocation to mainnet happens, previous PIB tokens will be converted to PIB coins.



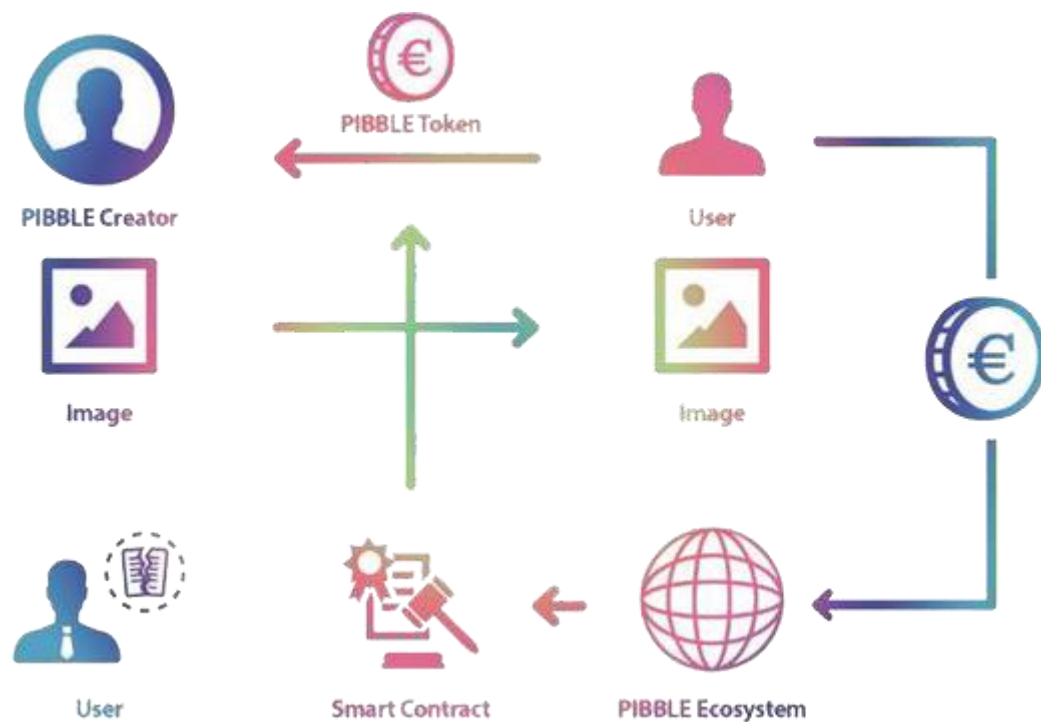
## 5. PIBBLE Token Ecosystem

The PIBBLE token (PIB) is used within the PIBBLE Ecosystem for transactions between participants, payment method, or funding. User can buy products in P2P Commerce or participate in crowdfunding to receive participation rewards.




< PIBBLE Token payment solution >

PIBBLE Token has cryptocurrency's payment function as it is, thus being able to perform as global payment system for demand to own or use images and photos globally. In other words, as a global image marketplace, the PIBBLE Ecosystem uses the blockchain network and the PIBBLE Token serves as a global media payment method without having to adjust exchange rates every day. Also, it can dramatically reduce unnecessary time and money spent through brokerage firms.





< PIBBLE Token in PIBBLE Ecosystem >

In addition, the PIBBLE Token has P2P advertisement features for participants who need promotions. Advertisers can advertise themselves through photos and videos, or engage in P2P marketing which rewards participants with PIB Tokens or Red Brushes when they Follow, Tag, or Like advertiser's contents.

How much budget do you set for the promotion?

20,000 PIB

—————●—————

Your promotional budget has been set at  
20,000 PIB. Your media reaches about  
5,000 people.





## 6. PIBBLE Roadmap

### 2017 4Q

Team building

Idea development, forming technical specification

### 2018 1Q

Design Prototypes & Early White Papers

Completion of Technical White Paper, Side Papers, Preparation for ICO.

Development of a smart contract for PIBBLE token release.

Token Pre-Sale PIBBLE Token & Wallet development Ecosystem partnership continuation

### 2018 2Q

Token Public Sale

BITDNA development

Distributed Image Storage System development

Continue the development of the PIBBLE Platform.

### 2018 3Q

BitDNA Pro API alpha

PIBBLE Ecosystem alpha 1, 2

iOS Mobile App alpha

### 2018 4Q

PIBBLE Ecosystem alpha 3, 4

Android Mobile App alpha

PIBBLE Ecosystem beta 1





## 2019 H1

PIBBLE Ecosystem beta 3

PIBBLE BitDNA Beta & dAPP PIBBLE Commerce

PIBBLE Curation PIBBLE Web

PIBBLE Pro Market

## 2019 H2

PIBBLE Platform phase 2

interoperable with other Blockchain Continuation dApp Advancement

Expand new dApp on PIBBLE Platform

## 2020 H1

PIBBLE advertisement system launching.

PIBBLE APP NFT Commerce

Commerce that allows you to mint and sell photos and videos with NFT in the KIP17 standard

## 2020 H2

PIBBLE's Gift - Mobile Coupon Service Released

Open payment and gift coupon services that allow instant payment for various products with PIB token at over 4000 affiliated stores nationwide

## 2021 H1

KLYASwap Listing - KLYASwap listing, the largest DEX in Korea. KLYASwap is the largest DeFi among the DeFi services running on the Klaytn mainnet, and its liquidity is overwhelmingly larger than other DeFi.


SushiSwap Listing - Listing Sushi Swap DEX for global usersproducts with PIB token at over 4000 affiliated stores nationwide

## 2021 H2

NFT MarketPlace Released

NFT Marketplace 'BITARTE' - Development of NFT Marketplace that supports Klaytn Network KIP-17 standard. Anyone can easily create and share NFTs in a social form such as Instagram

Certain items in the the above roadmap may be completed before expected, meaning other schedules may consequently be carried on earlier. On the other hand, the tasks found more difficult than expected



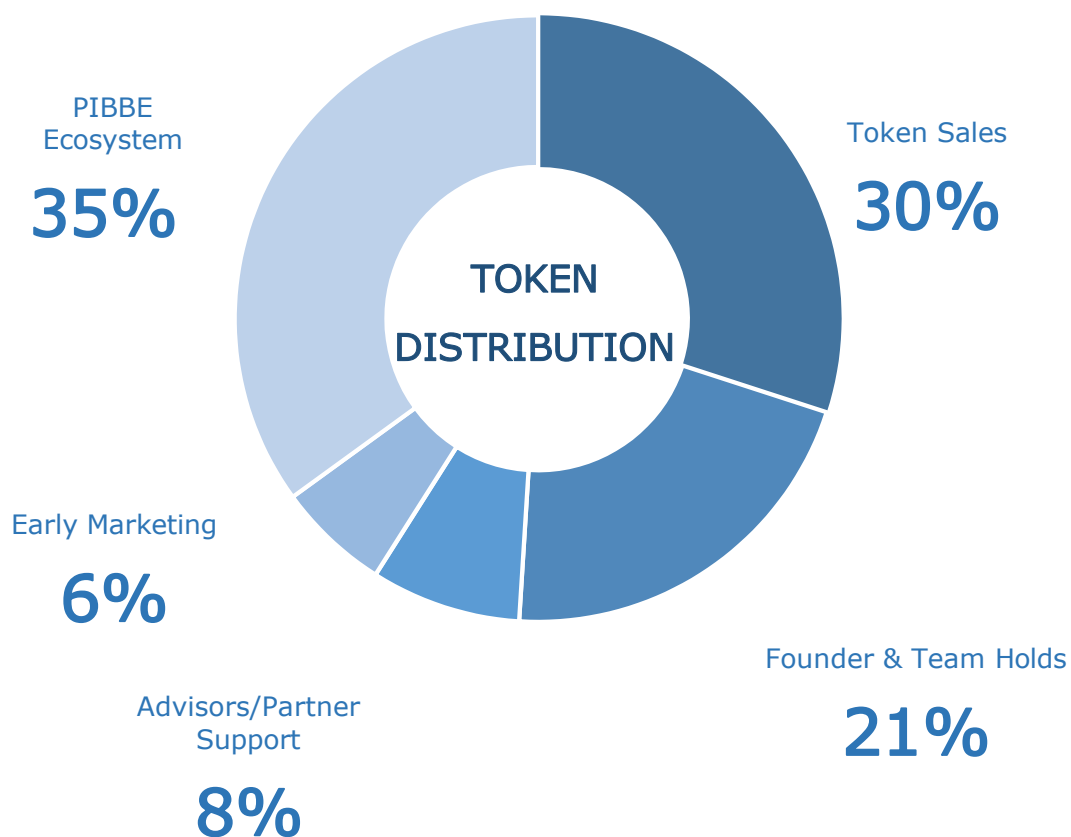
may take longer. This roadmap will be adjusted quarterly, and we will establish new goals as we complete certain objectives and intended plans. Please note that the road map also depends on our ability to hire the right personnel at the right time.

If our plans are in accordance with the roadmap, even meaningless images and photos neglected on the corner of networks will be reborn as new and valuable lives in our PIBBLE Ecosystem. The PIBBLE Ecosystem is not only a new image sales platform but also a social platform based on Blockchain. Also, it is an innovative new-generation platform that was created thanks to the Blockchain technology and definitely guarantees rewards to users.



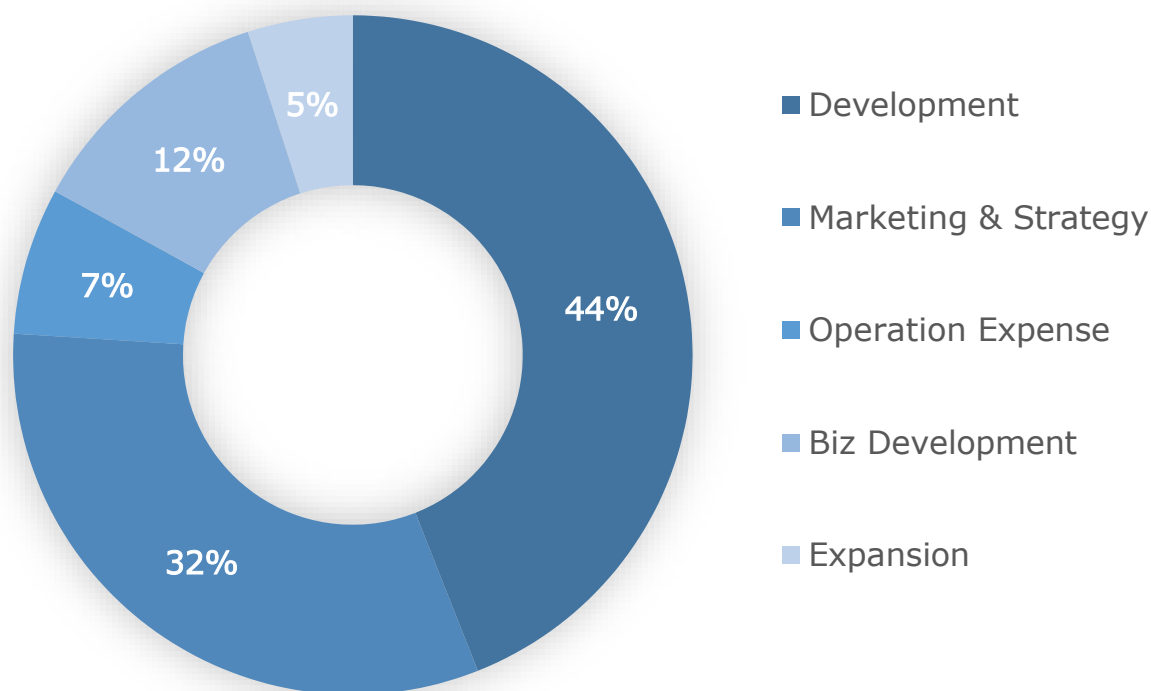
## 7. Token Distribution

### 7.1. Token Distribution



- The total PIB Token Issue volume is 30 billion. (Not a fixed amount)
- **PIBBLE Ecosystem (35%)** 35% of total issue volume will be retained by the company and will be used to vitalize the Ecosystem service along with marketing.
- **Founder & Team (20.9%)** 20.9% of total issue volume will be held by stockholders and R&D Team and locked until service opening time.
- **Token sales (30%)** 9 billion PIB tokens, 30% of total issue volume, will be sold through Pre ICO and Public ICO.
- **Advisor/Partner (8.0%)** 8% of the total issue volume will be distributed to advisors and partners.
- **Early Marketing (6.2%)** Used for service launching marketing and listing. Including bounty programs.

## 7.2. Use of Funds



- 44% of the amount is scheduled to be used for system development and operating expenses, 32% are for marketing and strategic partnership for service activation, 12% are for business development, 7% are for legal review and operation cost and 5% are for contingencies.





# Notice and Disclaimers

This Whitepaper may be amended from time to time without notice. This Whitepaper is intended to provide general information and is not meant to be exhaustive, comprehensive or authoritative. PIBBLE accepts no liability in relation to the Whitepaper, or any reliance on the Whitepaper, and does not warrant the accuracy or completeness of the Whitepaper.

PIBBLE Tokens may only be purchased pursuant to the PIBBLE Token Sale – Terms of Sale.

The risks described below, and or other additional risks presently regarded to be immaterial actually materialise, the commercial viability of the PIBBLE project and/or the PIBBLE Ecosystem may be materially and adversely affected. These risks could result in the failure of the Token Sale, the destruction of the Tokens and/or the termination of the development or operation of the PIBBLE project and/or the PIBBLE Ecosystem.

Risks associated with the development and operation of the PIBBLE project and/or the PIBBLE Ecosystem:


The PIBBLE project and/or the PIBBLE Ecosystem are still under development and may undergo significant changes before they are released or implemented. While PIBBLE intends for the Tokens and the PIBBLE Ecosystem to function as described in the Whitepaper, PIBBLE may have to make changes to various features or specifications of the Tokens or the PIBBLE Ecosystem.

The PIBBLE Ecosystem may fail to be adequately developed or maintained or may encounter difficulties during development or operation, including financial, resourcing and technical difficulties. This may create the risk that the Tokens or the PIBBLE Ecosystem may not meet your expectations at the time of the Payment and may negatively impact the PIBBLE Ecosystem and the Tokens, and the potential utility of the Tokens.

Since the Services involve the use, purchase or sale of images, this is applicable intellectual property laws and may create the risk of infringing other person's intellectual property rights. This may negatively impact the PIBBLE Ecosystem and the Tokens, and the utility of the Tokens.

Risks arising from no governance rights: The Tokens confer no governance rights of any kind with respect to the PIBBLE project, the PIBBLE Ecosystem and/or PIBBLE. Accordingly, all decisions involving the PIBBLE project, the PIBBLE Ecosystem and/or PIBBLE will be made by PIBBLE at its sole discretion, including decisions to discontinue PIBBLE's products or services, the PIBBLE project and/or the PIBBLE Ecosystem, to create and sell more Tokens for use in the PIBBLE Ecosystem, or to sell or liquidate PIBBLE. These decisions could adversely affect the PIBBLE project and/or the PIBBLE Ecosystem and the utility of any Tokens that you own, including the Tokens utility for obtaining the Services.





Risk of failure, abandonment or delay of the PIBBLE project: The creation of the Tokens and the development of the PIBBLE project and/or the PIBBLE Ecosystem may fail, be abandoned or be delayed for a number of reasons, including lack of interest from the public, lack of funding, or lack of commercial success or prospects (e.g. caused by competing projects).

Risks associated with the Ethereum, Klaytn blockchain: The Tokens, the Token Sale and/or the PIBBLE Ecosystem are based on the Ethereum, Klaytn blockchain which is still in an early development stage and unproven. Any malfunction, flaws, breakdown or abandonment of the Ethereum, Klaytn blockchain may have a material adverse effect on the Tokens, the Token Sale and/or the PIBBLE Ecosystem. Furthermore, developments in cryptographic technologies and techniques or changes in consensus protocol or algorithms could present risks to the Tokens, the Token Sale and/or the PIBBLE Ecosystem, including the utility of the Tokens for obtaining the Services, by rendering ineffective the cryptographic consensus mechanism that underpins the Ethereum, Klaytn blockchain.

Risk of Ethereum, Klaytn mining attacks: As with other cryptocurrencies, the Ethereum, Klaytn blockchain is susceptible to mining attacks, including double-spend attacks, majority mining power attacks, "selfish-mining" attacks, and race condition attacks. Any successful attacks present a risk to the Tokens, the Token Sale and/or the PIBBLE Ecosystem, including proper execution and sequencing of transactions involving the Tokens.

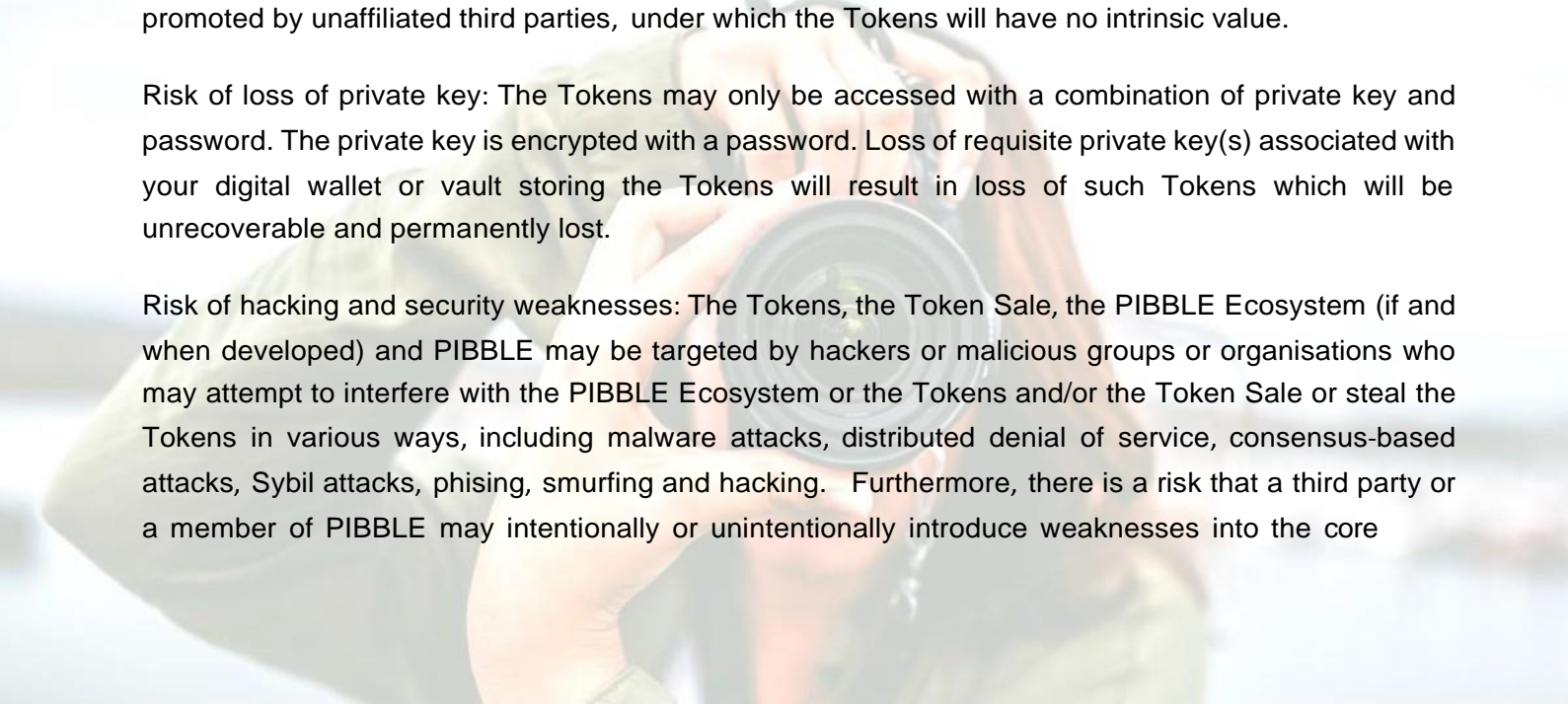
Risk of theft: The Ethereum, Klaytn blockchain may be exposed to attacks by hackers or other individuals that could result in theft or loss of ETH, or the Tokens, impacting the ability to develop the PIBBLE Ecosystem.


Regulatory risks: It is possible that certain jurisdictions will apply existing regulations on, or introduce new regulations addressing, blockchain technology, which may be contrary to the Token and/or the PIBBLE Ecosystem and which may, inter alia, result in substantial modifications of the PIBBLE Ecosystem and/or the PIBBLE project, including termination and the loss of the Tokens.

Risks associated with other applications: The PIBBLE project may give rise to other alternative projects promoted by unaffiliated third parties, under which the Tokens will have no intrinsic value.

Risk of loss of private key: The Tokens may only be accessed with a combination of private key and password. The private key is encrypted with a password. Loss of requisite private key(s) associated with your digital wallet or vault storing the Tokens will result in loss of such Tokens which will be unrecoverable and permanently lost.

Risk of hacking and security weaknesses: The Tokens, the Token Sale, the PIBBLE Ecosystem (if and when developed) and PIBBLE may be targeted by hackers or malicious groups or organisations who may attempt to interfere with the PIBBLE Ecosystem or the Tokens and/or the Token Sale or steal the Tokens in various ways, including malware attacks, distributed denial of service, consensus-based attacks, Sybil attacks, phishing, smurfing and hacking. Furthermore, there is a risk that a third party or a member of PIBBLE may intentionally or unintentionally introduce weaknesses into the core



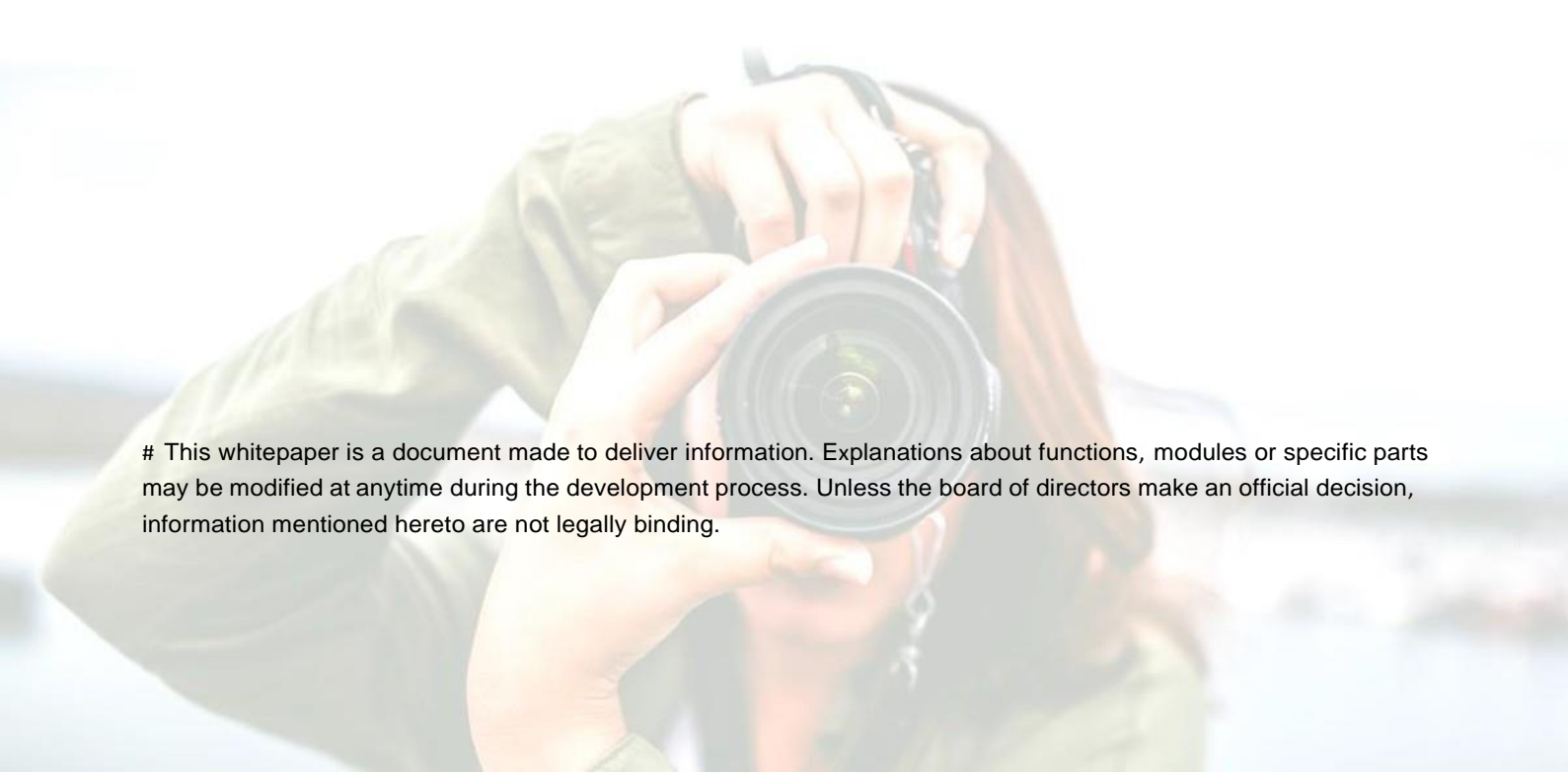


infrastructure of the PIBBLE Ecosystem, which could negatively affect the PIBBLE Ecosystem, the Tokens and/or the Token Sale, including the utility of the Tokens for obtaining Services.

Risks associated with taxation: The tax treatment and accounting of the Tokens is uncertain and may vary amongst jurisdictions. You must seek independent tax advice in connection with purchasing the Tokens, which may result in adverse tax consequences to you.

Risks associated with volatility of ETH: The value of ETH may fluctuate significantly over a short period of time as a result of various factors including market dynamics, regulatory changes, technical advancements, and economic and political factors. Due to such volatility, PIBBLE may not be able to fund the development of the PIBBLE Ecosystem, or may not be able to maintain the PIBBLE Ecosystem in the manner that it intended.

Technology risks: The Tokens are intended to represent a new capability on emerging technology that is not fully proven in use. As the technology matures, new capabilities may dramatically alter the usefulness of the Tokens or the ability to use or sell them. The functionality of the Tokens is complex, will require enhancements and product support over time, and full functionality may take longer than expected. The full functionality of the Tokens is not yet complete and no assurance can be provided of such completion.



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