



# BLOCKCHAIN BASED, MONETIZED IMAGE ECOSYSTEM

*February 2018*



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# 1. Abstract

Nowadays, so called “shared” files are used freely without any monetary payments. PIBBLE questions, did, however, everybody agree to this?

Ever since Napster enabled music files to be shared freely in 1999, digital content-related technologies easily enabled sharing music to even video files without damaging the original.

In 2008, when Apple released the iPhone 3G to the world, a camera was held in everyone's hands, and photos taken by the most ordinary people became one of the most popular contents.

However, despite such a vast expansion, the 'image' market still remains uninstitutionalized. When one shares a picture or image that they like, the original creator is often barely recognized. Due to this culture, recognition for works of experts is slowly fading.

As a result, professionals and indie groups alike are losing a place to stand in the image market.

PIBBLE project, represents the interests of the following groups of people;

- Expert groups in the Stock Image market, which is traditionally a paid market but a market that requires change;

- Indie artist groups who want to turn their creative dreams into a profession;


Ordinary people who lead the image market through SNS photographs etc.;

- Entertainer groups such as singers, actors etc. whose issued portraits are directly linked to their values;

while allowing them to communicate with each other within the PIBBLE Ecosystem and aims to reorganize the existing markets so that each group may be legitimately compensated for the images and work they have created.

To do this, the PIBBLE project is planning on developing a decentralized marketplace based on Blockchain, while building an incentivized ecosystem where 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 can be an improvement from the reality where most of the users don't recognize that the images they upload daily on 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

PIBBLE is a Blockchain-based cryptocurrency that allows image creators and consumers to be together, compensating them for the work they create, use and enjoy. The "images" that PIBBLE Project handles are not only a picture or a stock image but also various kinds of images such as a cartoon, a character, an illustration, a graphic, a picture of entertainers (singer, actor etc.) and video stills.

Meaning, "users" of PIBBLE Project includes all users such as expert groups who have been engaged in business with images, indie artists who have had little opportunity to be valued for their own works, ordinary people who don't have a clear concept of copyrights, and a group of entertainers for whom it have been difficult to claim their own portrait rights online.

The "creator" within the PIBBLE Project will receive a fair price for his or her creation, which is achieved through Blockchain based Image Ecosystem. PIBBLE will become a platform where everyone can become an image seller and buyer, protecting the rights of professional creators while creating a fun community platform by providing a social marketplace to the public.

PIBBLE project will develop into a Blockchain based marketplace that can allow transmission of images that have gone under agreement and restrict the use of unauthorized use of images which can result in paid markets within SNS. This can be achieved by using a self-developed Image tracking system and Blockchain technology.

**All Users Group**

**Normal User Pictures, Celebrity Pictures**

**Indie Creator Group**

**Cartoon, Character, Illustration, Picture, Works**

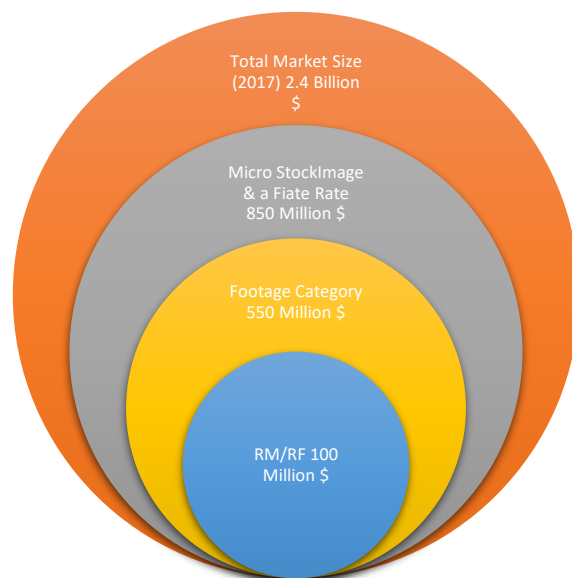
**Professional Group**

**Stock Image**

< Figure 1: PIBBLE User group >



## 2.2. Current State of Paid Image Market



< Figure 2: Stock Image Market Status >

According to marketing research facility, Technavio, the global stock image market is estimated to reach \$ 2.4 billion by 2017. The most significant portion of the transaction was micro-stock images and flat rate sales, which recorded sales of about \$ 850 million. Video image(Footage) related sales, which are very likely to grow in the future, is amounted to be \$ 550 million. The relatively high-priced RM (Royalty Managed)/ RF (Royalty Free) market being \$ 100 million.

Experts predict that the stock image market will continue to grow. Technavio expects the stock image market to grow at an average annual rate of 8% by the coming 2021, reaching \$ 3.26 billion. With the development of communication-based technologies such as the internet, more images will be created, and not only still images but also 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 \$ 2.4 billion. However, 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 Paid Image Market



## 2.3. Problems of Paid Image Market

### Unreasonable payment method by a huge intermediary, Stock Image Agency

The stock image market, a typical paid market and also a multi-billion dollar market, is expected to grow continuously. Ironically, however, unlike the recent growth in market size, revenues of the creators are declining. This is due to the rights of the creators not being managed properly. A structure where the stock image market company has the upperhand over the creators is becoming fixated and problems arise with it.

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 of 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 since the price of sales images was lowered, the profits of the original creators decrease significantly. In addition, one of the many problems it has is that it takes a long time to calculate their profits. It takes about 90 days even on "Shutter Stock," the top company in stock images market. Meaning, users are subject to transaction restrictions due to such payment methods. For these reasons, creators have two choices, look for other agencies to guarantee better treatment or accept such 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 offer their own standards and creators have to follow 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. Procedures take a long time and certain companies often delete photos that has already been approved without 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 criteria.

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 a 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 creators beyond hobby has increased steadily. While image is a valuable asset to many creators, there is virtually no device or system to protect their rights due to the absence of tracking system and management of unauthorized images.

PIBBLE aims to fix this by using our self-developed Image Tracking system<sup>1</sup> which was operated for years and we plan to expand the reach of this to Blockchain. By recording the circulation of images, even on SNS, using Blockchain, we are going to 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.

1.^ Patent number (licensed in Korea) : 2009- 111367 / BM patent number: 2010-59947



## 3. PIBBLE Ecosystem Solution

By using the Blockchain/Smart Contract technology, we expect to aid in generating fair revenue for image creators while, at the same time, minimizing copyright infringement problems.

PIBBLE Ecosystem is a platform where anyone can become a creator/consumer of image contents. As the system is built on a global network, anyone can produce and use images without time or space limitations.

The PIBBLE Ecosystem, which utilizes Blockchain, especially takes note of countless of images that are generated in the age of SNS and promotes a structure where anyone can generate profits as image creators through the use of cryptocurrency, promoting an image marketplace where anyone can participate in.

The biggest problem of many projects that utilizes cryptocurrency and Blockchain technology is that it is difficult to attract people who are not yet informed or has no interest in Blockchain or cryptocurrency platform. PIBBLE, however, can utilize the already popular culture of creating images. PIBBLE can provide a marketplace where anyone can become creator/consumer of image contents which can motivate people who are not interested in cryptocurrency to participate.

### 3.1. PIBBLE Consensus Algorithm

PIBBLE tokens will be created using the ERC20 token standard. Later it will evolve into using consensus algorithm of the Delegated Proof of Stake (DPoS).

Ethereum's PoS is more efficient than Proof of Work(PoW) system and has a merit of not requiring expensive mining devices, and is operated by constructing a certain number of representative nodes(witnesses) elected by the user's vote within the PIBBLE Ecosystem.

Blocks generated by the agreement of these witnesses will contain transactions such as image DNA information and text information, and such method will generate blocks every few seconds which is much faster than the PoW system, resulting in ample amounts of transaction needed within the Ecosystem.

The PIB Tokens resulting from block generation will be accumulated in the PIBBLE Ecosystem, and a significant amount of accumulated PIB Tokens will be distributed to the image authors. Certain percentage of PIB Tokens will be allocated as rewards for Verification user, User Activity(download, up-vote, thumbs up and comments, etc.) and some percentage of those will be allocated to the witnesses. The distribution rate between witnesses will be determined by the ratio of PIBBLE Brush held by each witness.

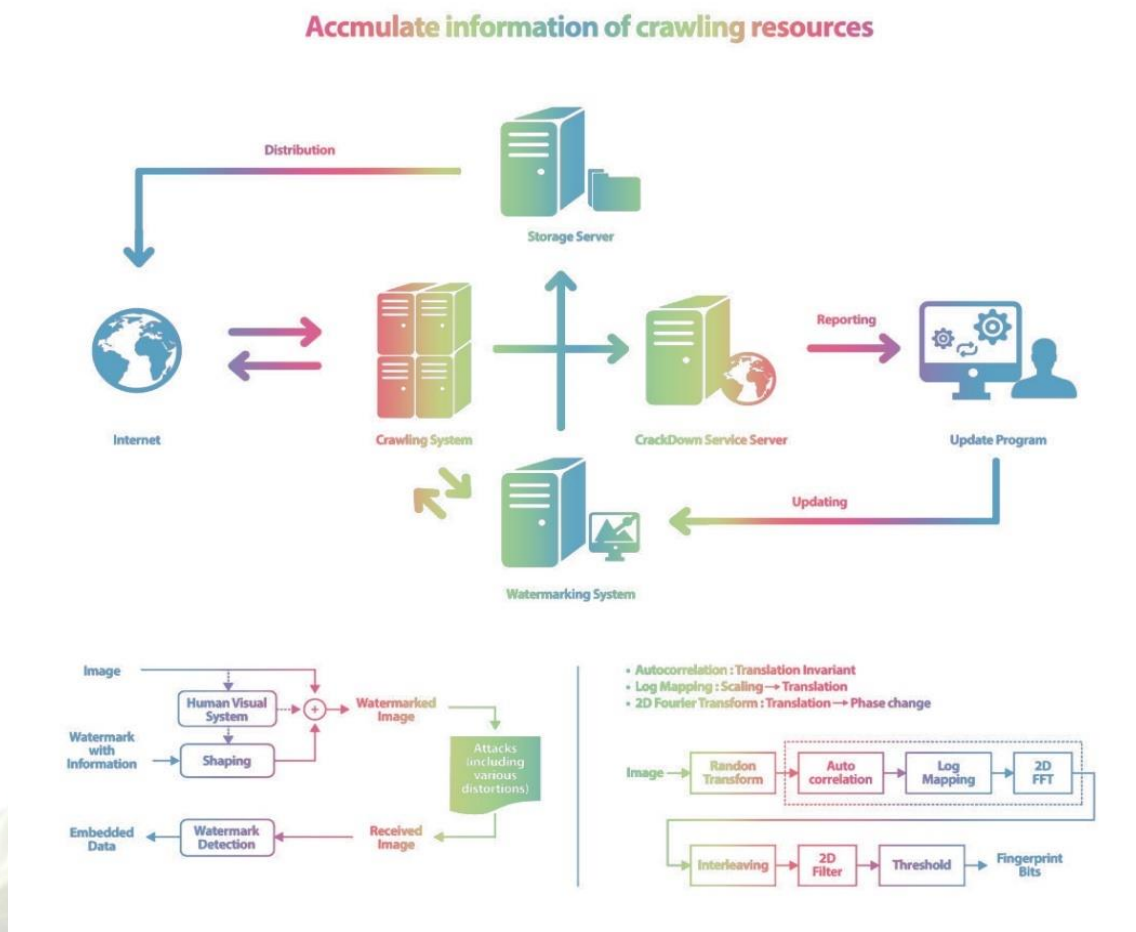
**Level of contribution within the blocks that are created:**  
**Number of PIBBLE Tokens held \* Holding Time of PIBBLE Brush within the network**

## 3.2. Building Image Monitoring System Using Blockchain

### Blockchain Image DNA System 'BitDNA Pro'

We are planning to combine 'Contents PRO,' our self-developed and patented image tracking technology with Blockchain system. Contents PRO is an online digital image analysis and search engine. Contents PRO is a search engine solution capable of extracting and comparing over 300 thousand image features within one second (1,000 pixels), enabling image copyright tracking. This has prevented illegal copies and uses through image copyright tracking. Such tracking process utilizes DNA recognition technology on the image itself instead of the code insertion method. This is achieved through precisely comparing images similar to the original by analyzing image outline, color values, frequency and stress values etc.

The PIBBLE Ecosystem, introducing our own existing image tracking technology called 'Contents PRO' into Blockchain, suggests various utilization plans such as image monitoring function and similar image search and so on.



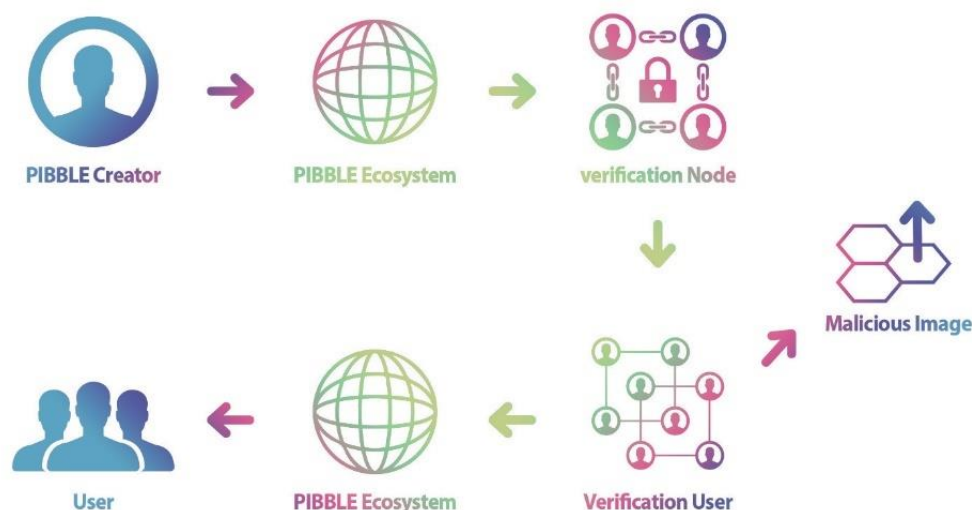
< Figure 3 : Image tracking process of Contents Pro >

The currently operating Standalone 'Contents Pro' system will be restructured to a form suitable for Blockchain ecosystem, regenerated as a 'BitDNA Pro' and will perform the following functions on the witnesses' nodes.

In the PIBBLE Ecosystem, BitDNA Pro has these following functions : 1) prevent duplicate image registration by comparing the images that are already registered within the system with the new ones. 2) Filtering out images that are deemed violent or inappropriate. 3) the ability to search similar images that the users want.

The DNA extraction technology of the BitDNA Pro records the DNA information of all the images that are registered, in the Blockchain Ledger. The images that are newly registered are compared with the existing DNA information within the PIBBLE Blockchain system and if they are considered to be the same they are held off from being registered.

### 3.3. Building Automated and Decentralized Image Upload System – PIBBLE Creator's Consensus



< Figure 4 : Image Upload Verification Process of PIBBLE Ecosystem >

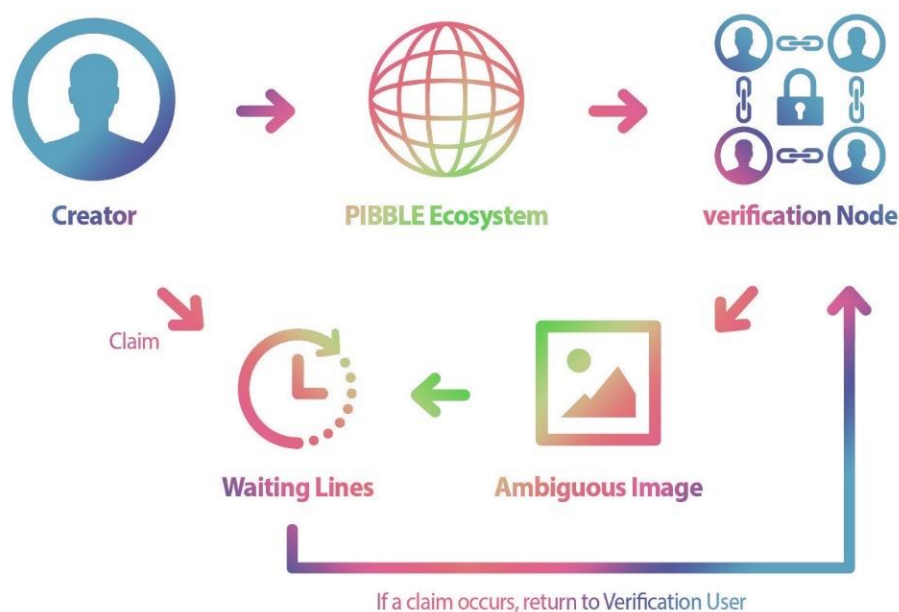
The PIBBLE project presents a solution by giving value for the users' works, enabling everyone to become a creator and secure profits in the digital era.

In addition, instead of the centralized image upload method that are being used by existing stock image agencies, it builds a decentralized Ecosystem by Deep Learning AI component and users' participation.



For this purpose, PIBBLE Ecosystem has two types of verification methods before upload, one being AI review and the other being user's review. First, BitDNA's DeepLearning AI for PIBBLE or BitDNA DL4P automatically filters out images that are deemed lascivious, violent, defamatory, libelous, injurious, obscene or offensive material, or which infringe third party rights which could undermine the value and nature of the PIBBLE Ecosystem. Even if an image passes the AI review, its exposure will be limited in the Ecosystem by the PIBBLE Blur function such as the community's down vote.

The DNA and text information of the images that have passed the review are stored on Blockchain system and the images are stored within the distributed cloud system.



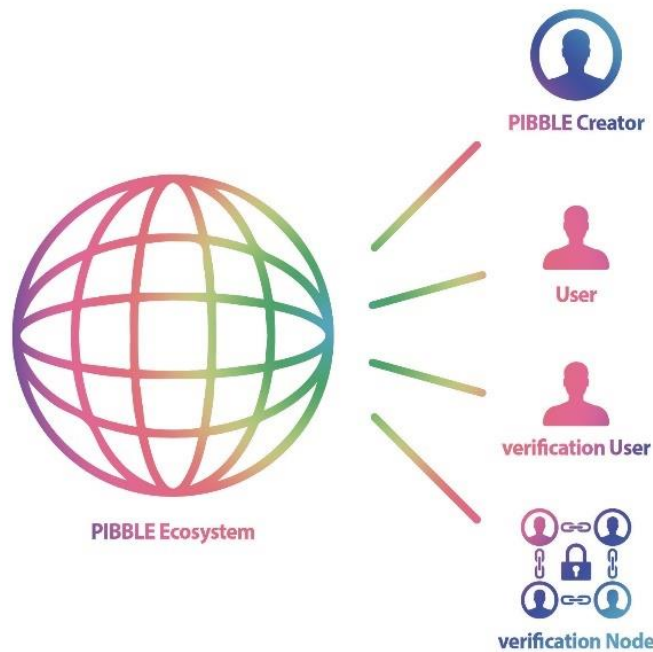
< Figure 5: Ambiguous Image Filtering Process >

Like mentioned above, images that are classified as duplicate, lascivious or violent are discarded after a certain period of time if the uploader does not object to it, whereas if there is an objection, such images are classified into 'Waiting lists' for the review. Also when the image turns out to be an ambiguous image after going through 'BitDNA DL4P,' it is also put into 'Waiting lists' for a review.

PIBBLE users can voluntarily participate as a 'Verification User' to perform a verification on images in 'Waiting lists' and acquire PIBBLE Brush accordingly. However, in this process, there is a possibility where an user participates in 'Verification User' program with malicious intents and select or upload an image that should not be uploaded onto the PIBBLE Ecosystem. To eliminate this possibility, 'Verification Users,' adopts consensus method concerning the target image. This 'consensus' requires a certain number of 'Verified Users' to vote and reach a



consensus with image upload, and if there is a vote against the upload, the number of consensus required to upload the image will increase. A 'verified user' who repeatedly votes to upload an image that numerous of other 'verified users' have voted against will be penalized by methods such as temporarily restricting the voting power or decreasing the amounts of PIBBLE Brush held.




< Figure 6: Configuration of PIBBLE Ecosystem >

### 3.4. Building Badge System through PIBBLE Brush and Activity in Ecosystem

Every user on Blockchain based PIBBLE Ecosystem can choose to remain anonymous. Registration process does not require one to disclose their personal information unless they want to. However, in order to prevent one person from creating multiple accounts and having negative effects on the ecosystem, users are required to follow the admission approval process through methods such as mobile phone verification or e-mail address verification.

Due to the anonymity within the PIBBLE Ecosystem, a user with malicious usage behavior may appear in the PIBBLE ecosystem. To restrict those users and for the wholesome of the ecosystem, a Badge system will be introduced.

Badges of each account is determined through each account's respective activity score along with PIBBLE Brush. Activity score grows proportionally with the following conditions:

- 
1. **Number of image traded within the PIBBLE Ecosystem**
  2. **Number of PIBBLE Tokens paid in image purchases**
  3. **Number of PIBBLE Tokens received in image sales**
  4. **Comment activity score regarding images registered on the Ecosystem**
  5. **Number of participation in the image upload verification work as 'Verification User'**
  6. **PIBBLE Brush holding score**
  7. **Activity period in PIBBLE Ecosystem**

Activity score grows in based on the above conditions, but is not unconditionally proportional to them. As an account achieves these conditions, the level of difficulty for Badge growth increases. Meaning, the higher the Badge grows, the more challenging ascending to the next Badge level becomes.

Along with activity score, holding PIBBLE Brush affects the Badge level heavily. The more PIBBLE Brush one holds, the higher the Badge level would tend to be.

There are various kinds of benefits for an account with high Badge level. First of all, images that are posted by a member with high Badge level within the Ecosystem, will be exposed on the top of the platform. In addition, people will be able to view the images for a longer period of time, thus providing ample amounts of opportunity to make profit from the uploaded images.

Also, the PIBBLE Brush compensation ratio grows according to the PIBBLE Tokens held. Furthermore, higher the 'Badge level' becomes, the more incentives you can acquire by participating in the image registration verification process.

On the other hand, accounts that consistently stay in low(or minus) 'Badge level', would be expelled from the Ecosystem and lose access right. Even if an account gets expelled or lose access right, the owner of the account will be able dispose of their PIBBLE Brush/Token. 'Badge level' for each account is updated in real time, and the 'Badge level' will go down for accounts that have consistently shown malicious behavior in the image verification process or have received multiple complaints from other users.



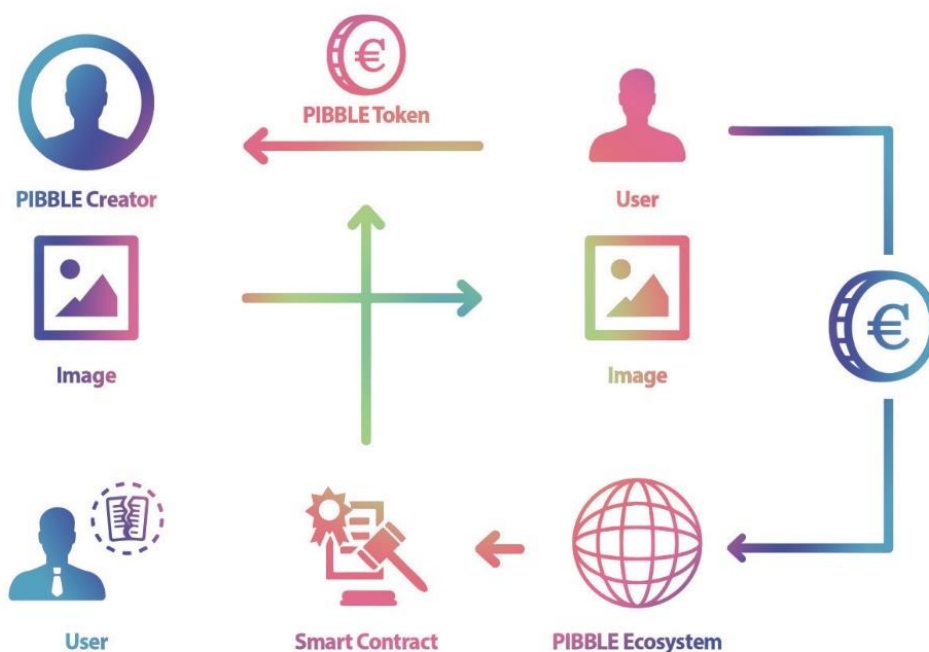
## 4. PIBBLE Token & PIBBLE Brush

### 4.1. Usability of Token

The PIBBLE Token will be used within the PIBBLE Ecosystem for transactions between creators and copyright users/buyers. The PIBBLE Token, which will be used primarily as a payment solution within the PIBBLE Ecosystem, Image users and buyers can make payment with a PIBBLE Token, and PIBBLE creators will be paid PIBBLE Token for their work, within the PIBBLE Ecosystem.

By using the same payment method called 'PIBBLE Token' within the PIBBLE Ecosystem, a global Blockchain network, it will eliminate the inconvenience of adjusting the exchange rate every day according to the user's nationality.

Also, using PIBBLE Token as a payment method can innovatively reduce unnecessary time and cost that are caused by brokers or middleman and lessen the burden caused by micropayments. PIBBLE token can be traded or sent to individuals' wallet within the PIBBLE Ecosystem.



< Figure 7: PIBBLE Token in PIBBLE Ecosystem >

PIBBLE Ecosystem Participants can acquire PIBBLE Tokens in various ways. They can purchase, use, or own images freely from others through the acquired PIBBLE tokens.

## 4.2. Payment Solution

### Stock Image Market

Within PIBBLE Ecosystem, every transactions of stock images and individual images occur with PIBBLE Token. Instead of using trading methods by existing agencies which use Fiat, payment method can be unified into a cryptocurrency called PIBBLE Token.



< Figure 8: PIBBLE Token payment solution >

Creators can determine the prices of the images they upload on PIBBLE Ecosystem in PIBBLE Token. To secure initial liquidity, PIBBLE will provide myriads of images to individuals without charge. However, if they wish to use the images for commercial purposes, they are required to acquire permanent or temporary license using PIBBLE Tokens. Such token trading method is expected to create more demand for PIBBLE Tokens. 10% of the revenues generated through the stock image sales method, will be allocated to resources to vitalize the PIBBLE Ecosystem.

### Social Trading Market

Any user in PIBBLE Ecosystem can freely create and sell their own images. One who creates and uploads the image is called PIBBLE Creator. Social Trading Market also uses the PIBBLE Token as a means of payment.

The payment of an image goes to the creator except for a small network transmission fee. In other words, the PIBBLE Token paid by the image user is delivered to the PIBBLE Creator as it is



to support another creative activity of the creator, eliminating the huge brokerage fee that the existing agency has taken, ensuring a fair profit to the creator.

### 4.3. PIBBLE Ecosystem Fee

In order to register and trade images in the PIBBLE Ecosystem, a transaction is required. To do this, a Verification Node, consensus system, and image storage etc. are required, and resources are used in this process. The PIBBLE Ecosystem requests a fee for transaction processing, and the fee is paid with the PIBBLE Token.



< Figure 9: PIBBLE Ecosystem Fee >


### 4.4. PIBBLE Brush

PIBBLE Ecosystem has a compensation system called 'PIBBLE Brush' in company with PIBBLE Token to establish a healthy ecosystem. The tokens being used for the trading are maintained in a proper amount in the PIBBLE Ecosystem so that an appropriate balance can be maintained between the users who wish to exchange the tokens into Fiat and the users who wish to hold on to them. For this, the PIBBLE Ecosystem offers 'PIBBLE Brush' for users in several ways.

All users can receive a certain amount of PIBBLE Brush through various activities (image registration, download, up-vote etc.), and will be given to the 'Witnesses' by participating in the consensus algorithm. PIBBLE Brush is distributed to users according to various conditions such as participation, contents, active history, Badge level and so on.

PIBBLE Brush is a mean to compensate users within the PIBBLE Ecosystem. Unlike PIBBLE Token, PIBBLE Brush is not an ERC-20 token and may only be traded in the PIBBLE Ecosystem. Users can exert their influence which increases according to the PIBBLE Brush held by the user or distribute some of them to other users.





The PIBBLE Brush can also be exchanged with PIBBLE Token, which takes about 6 weeks. Users can exchange PIBBLE Tokens into PIBBLE Brush to increase the holding amount of PIBBLE Brush, and may spend those to expose the images they are trying to sell to the top of the platform or exert their influence to the community by voting on posts.

## PIBBLE Brush Reward via Image Post Viewing

Within the ecosystem, users can be rewarded with PIBBLE Brush even by simply viewing the registered Image. This is a basic reward system to vitalize the platform. 'PIBBLE Brush Reward' may lead to irregularities such as indiscreet viewing activity. To prevent this, the reward is calculated every 30 minutes for each case. When this happens, the reward amount is offered in proportion to the amounts of PIBBLE Brush held by each account.

This reward system, however, will have a critical weakness that causes polarization. To prevent this the PIBBLE Ecosystem burns from 5% to 30% of PIBBLE Brush in each account about every 6 months (The rates are determined by various conditions, the biggest being the amount of PIBBLE Brush being held). Such measures will prevent polarization within the platform and incentivize users to participate frequently.

The 'PIBBLE Brush Reward' system is scheduled to be properly reestablished through sufficient tests during the beta service period.

## PIBBLE Brush Reward Via Commenting

Each account can be rewarded with PIBBLE Brush by writing a comment. There will of course be measures to prevent spamming.


The PIBBLE Brush reward for comments have the maximum value in 24 hours and will be refreshed at GMT 0 o'clock.

In the case of any continuous irregularities, the user will be penalized by methods such as deprivation of comment right and/or the PIBBLE Brush reward reduction by downgrading Badge level and so on. Malicious accounts may be subject to restrictions in connection with their overall reward such as PIBBLE Brush Reward.

## 5. PIBBLE Roadmap

DATE	Roadmap
Prerequisite	Contents Pro - Image Copyright Tracking System
Q4 2017	Team building Idea development, forming technical specification
Q1 2018	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
Q2 2018	Token Public Sale BITDNA development Re-structuring Contents-Pro engine for Blockchain Distributed Image Storage System development Continue the development of the PIBBLE Platform.
Q3 2018	PIBBLE Image Marketplace alpha BitDNA Pro API alpha PIBBLE Social Platform alpha
Q4 2018	Public beta launch of PIBBLE Echo System <ul style="list-style-type: none"><li>- Upload and Initialize the Free License stock images</li><li>- PIBBLE / PIBBLE Brush Reward System release</li><li>- Open BitDNA Pro</li></ul> Mobile Apps development
Q1 2019	Launch of PIBBLE system Release Mobile Apps for iOS & Android

These plans may be completed earlier than expected, meaning other schedules may carry on early, and the tasks that are found to be more difficult than expected may take longer. This roadmap will be adjusted quarterly and establish new goals as we complete objectives and intended plans. Please note that a big portion of the road map depends on our ability to hire the right people at the right time.

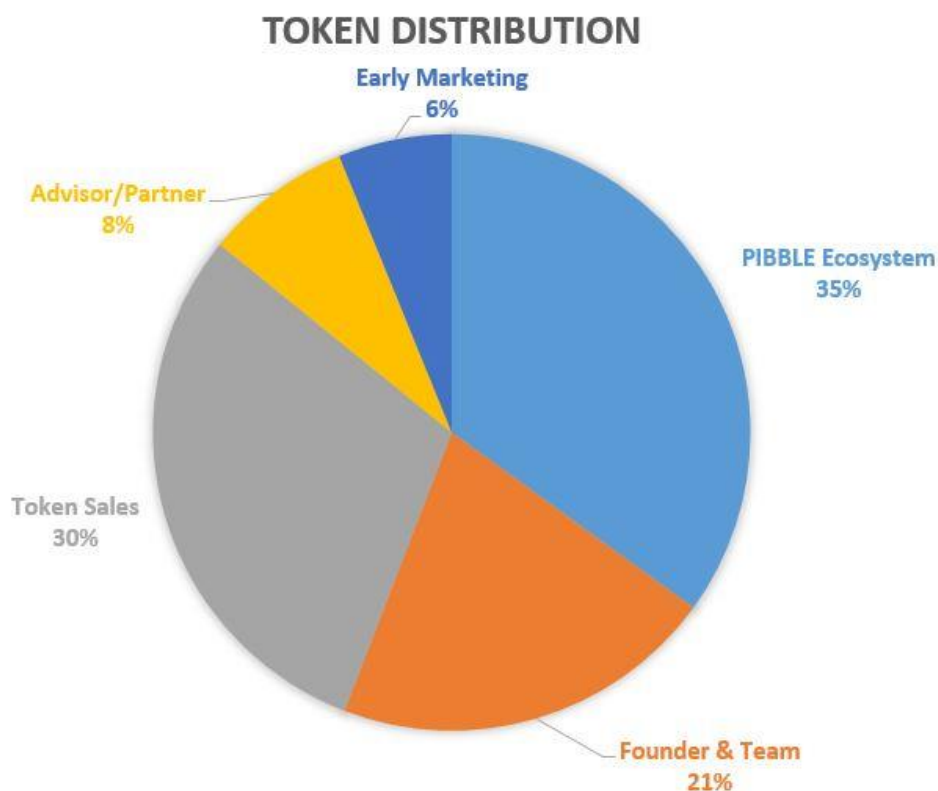


If our plans are in accordance with the roadmap, even meaningless images and photos neglected on the corner of networks will be reborn as new and valuable lives in our PIBBLE Ecosystem. The PIBBLE Ecosystem is not only a new image sales platform but also a social platform based on Blockchain. Also, it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



## 6. Token Distribution

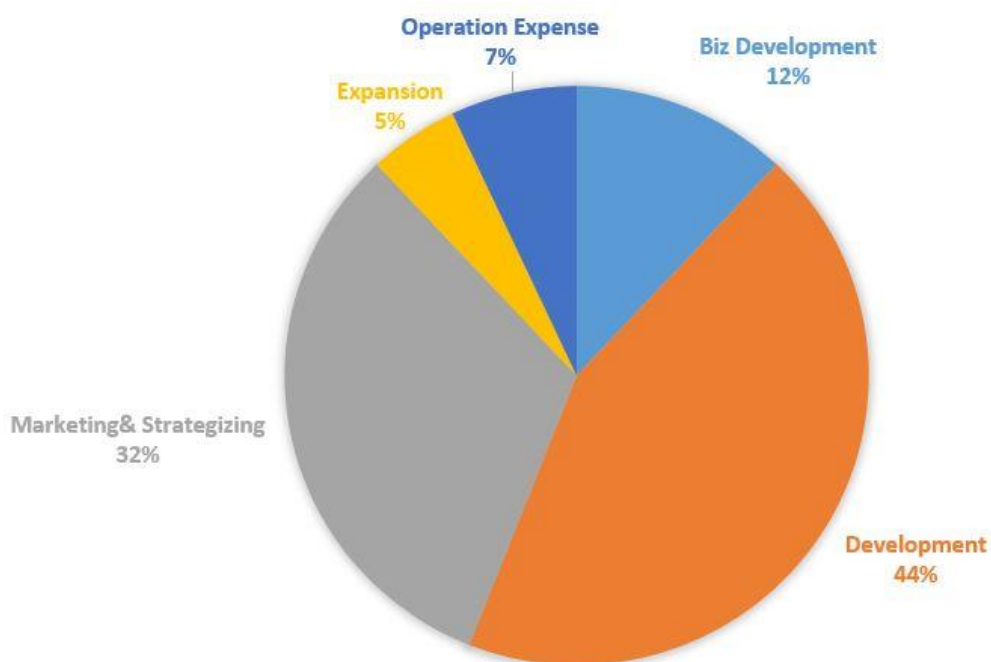
### Token Distribution



- Total PIB Token issue volume is 30 billion. (Not a fixed amount)
- PIBBLE Ecosystem (35%): 35% PIB Tokens of the total issue volume will be retained by the company and will be used to vitalize the Ecosystem service along with marketing.
- Founder & Team (20.85%) - 20.9% PIB Tokens of the 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 (6.15%) - Including bounty programs.

**# More detailed information will be announced via [pibble.io](http://pibble.io) before the Pre ICO**

## Use of Fund



- The amount to be raised through PIB Token issue is about 45,000 ETH.
- 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 contingency.

## Pibble Token Generation Event Distribution Summary

- Ticker: PIB
- Token Type: ERC20
- ICO Token Price: 1ETH = 200,000 PIB
- Hard Cap: 45,000 ETH
- Total Tokens: 30 billion PIB (Not a fixed amount)
- Available for Token Sale: 30%
- Pre ICO-Period: MAR 14, 2018 ~ MAR 26, 2018
- Public ICO Period: APRIL 1, 2018 ~ APRIL 15, 2018 or reached hard cap

**# More detail information will be announced via Pibble.io before the Pre ICO**



## 7. PIBBLE Partners - Based On Prior Cooperation

### Image Contents Partner

shutterstock

 123RF®

alamy

BIGSTOCK

 data 한국데이터진흥원

e-motion

 dayless images

purestock

TPG

gettyimagesKOREA®

 CanStockPhoto

dreamstime

 IMAGINECHINA

 fotolia

OGQ

### Contents PRO Partner

FONTRIX

GroupY

 YANGJISA

 HANYANG  
INFORMATION & COMMUNICATIONS

 DAOU 다투데이타

## Overall Partner



## 8. Team – MEMBER & ADVISOR

### ADVISORS



Floris Kleemans

Founder of FOCAFET Foundation

Since 2014, he is chairman of the non-profit Foundation based on the blockchain. He was in CSO of ABN AMRO bank N.V. Currently, working on initiatives For Open Convenient And Fair Economic Transactions.



Paul Iske

Professor Open Innovation and Business Venturing

Prof. of Maastricht university Paulsike, Served as the Chief Communication Officer of ABN BANK in Netherlands. He is considered to be a master of Open Innovation and Venture Startups in the financial industry as a co-founder of Next Generation Finance.



Sankalp Shangri

CEO & Founder at LALA World

He is gearing towards a decentralized financial Ecosystem. Also a speaker, Blockchain Author and an investor.



JinMan Kim

CEO-THE STAR ASIA

He is the head director of The Star Asia Co. that hosts the 'AAA' (Asia Artist Awards), an awards ceremony for singers and actors across Asia. The Star Asia regularly publishes a global magazine called 'The Star' while engaging in entertainment businesses by publishing and planning K-pop and K-drama based contents. Shortly after its foundation, it established 'The Star Japan Co.' in Tokyo which lead to unrivaled global network within Asian entertainment contents.



ChulWoong Jung

CEO-KIWI MEDIA GROUP

KIWI MEDIA GROUP is a company that is currently active on areas not only music and performances but also on movies, TV shows, publications and managements. It is listed on KOSPI right next to companies such as Samsung and LG electronics.



EonKoo Hwang

Vice president of e-Tomato Group

e-Tomato Group is a securities professional media group founded in 1994. He is transmitting securities news through News Tomato and Tomato TV, Naver, Daum, Africa TV, and so on. He has the biggest securities community in Korea. He has been actively involved in the introduction and development of new technologies like a Blockchain recently.





JiHyun Suh

CEO of VIRTUALTEK

VirtualTek was launched in 1991 as the IO system and entered the KOSDAQ market in 2000. The company is engaged in the global high-tech business and the second battery business for B2B. It has 13 affiliates and is developing Wi-Fi application technology and blockchain mining solutions.

## CONSULTANTS



Jay H. Kim

Blockchain Specialist for Token Logic Design

He is the director of New Business Development Department in Blockchain Forum Korea. He worked for Samsung Electronics as a smartphone developer and Program Manager for GM(General Motors). And he took charge of the strategy planning in LG Electronics.



Richard Jang

Marketing Manager

Journalist & Total Marketing Specialist and has extensive practical experience in PR and marketing for 20 years in connection with Infiniti Automotive(Hanmi Motors) and Salon de Marshall etc. He currently acts as a journalist and President of Citimon Inc.(PR & Marketing professional company).



Song Do-Young

Attorney at Law, Partner of VEAT LAW FIRM

After graduating from the College of Law at Korea University, he acted as secretary of the National Assembly and completed JRTI of the Supreme Court.

He specializes in IT, venture / start-up, VC / PEF, copyright, trade secret, privacy and information security.

Currently, he is an advisory lawyer for a number of institutions and companies, including the Korea Financial Investment Association(KOFIA) and other public institutions, as well as DUNAMU and COIN RAIL.

## MEMBER



Treadi Lee

Founder

Educational Technology in Ewha Womans University, and Master of Business Administration in Yonsei University, and completed AMP (Advanced Management Program) at Korea University and Seoul National University.

She is currently in charge of the new business of Kiwi Media Group and the content division of The Star Asia. She has provided copyright protection services to more than 60 newspapers in Korea through its own contents distribution solution. She has been involved in distributing and cooperating video contents as a business partner of MBC and YG Entertainment concerning online contents, and has a high understanding of contents.

Currently, she is involved in numerous of projects to combine the services of existing online business unit with the blockchain technology using the 20 years of experience in the field of IT,



YoungKey Park

CEO

Image recognition technology specialist using AI.

Project manager of face recognition engine (sensationally popular 'Pudding Face Recognition' app to find similar celebrity, KTH Company) development.

He was responsible for face recognition projects and motion recognition projects at KDDI Labs, a Japanese mobile service company. He also led development concerning digital signage using face recognition, video DNA extraction for second screen, motion recognition engine by acceleration sensor tracking, iris recognition engine, and VR (virtual reality) multi-camera real-time stitching module and so on. He has developed the image matching & classification engine and has expertise in image tracking technology.



Andrew DB Chae

CTO

Data Scientist. He is responsible for system development and PM(Project Manager) using Watson Cognitive system at IBM Research Center in Korea. He engaged in Korean Air maintenance log analysis system and led many SI (System Integration) projects such as INSARANG (HR & Payroll system for government employees) of Ministry of the Interior and Safety. He participated in the Best Project Award of the Presidential Citation and the Best Project Member Award of the Minister of Government Administration in 2007. He was IBM's first awardee of Global OIA/OTAA award in Korea in 2017. He is a member of the Blockchain SIG and The BigData SIG.



Ben Kim

Contents Developer

Contents sales & marketing Specialist. He has worked at Image Agency Company and News Agency for more than 10 years. He is in charge of Sales and marketing of AFPBB news (subsidiary of AFP in France, one of the three major news agencies) in Korea.





YoungSoo Mun

Multimedia Contents Producer

Video contents Specialist. Also, he is working as a professional MCN contents Producer. Since 1996, he has produced a variety of visual productions for Korean first-generation idol and K-pop actors. In particular, half of the first-generation idol music videos were born in his hands. He has produced many concert DVD productions, documentary films, campaign videos, government offices and corporate promotional videos, and TVCM.

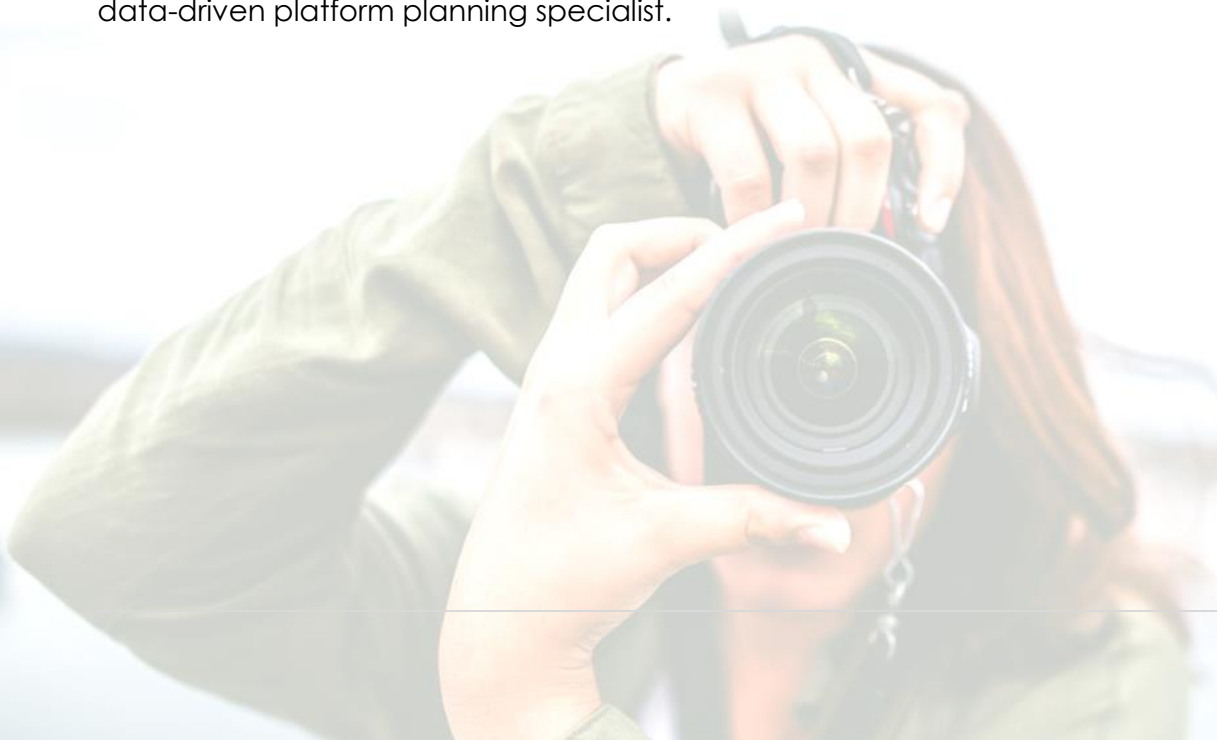


Kevin Kang

Contents Developer

Image & video contents Specialist

He has worked for more than 10 years in Korea's leading stock image companies. He is also working as a journalist in global entertainment media, 'THE STAR.' He is also working as a big data-driven platform planning specialist.







Jinri Lee

Marketing Developer

Jinri graduated from University of Wisconsin - Madison in Industrial Engineering and Harp Performance. She has been involved in many consulting projects in healthcare, manufacturing, and IT.



Hyungjoon Yoo

Research & Analysis Developer

He is working on analytics teams for new technologies based on blockchain and is responsible for communicating with global technology teams.





# Notice & 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 risk 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.

Risk 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 Service involves 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: Tokens confers 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).

Risk associated with the Ethereum blockchain:

The Tokens, the Token Sale and/or the PIBBLE Ecosystem are based on the Ethereum blockchain which is still in an early development stage and unproven. Any malfunction, flaws, breakdown or abandonment of the Ethereum 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 blockchain.

Risk of Ethereum mining attacks: As with other cryptocurrencies, the Ethereum 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 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.

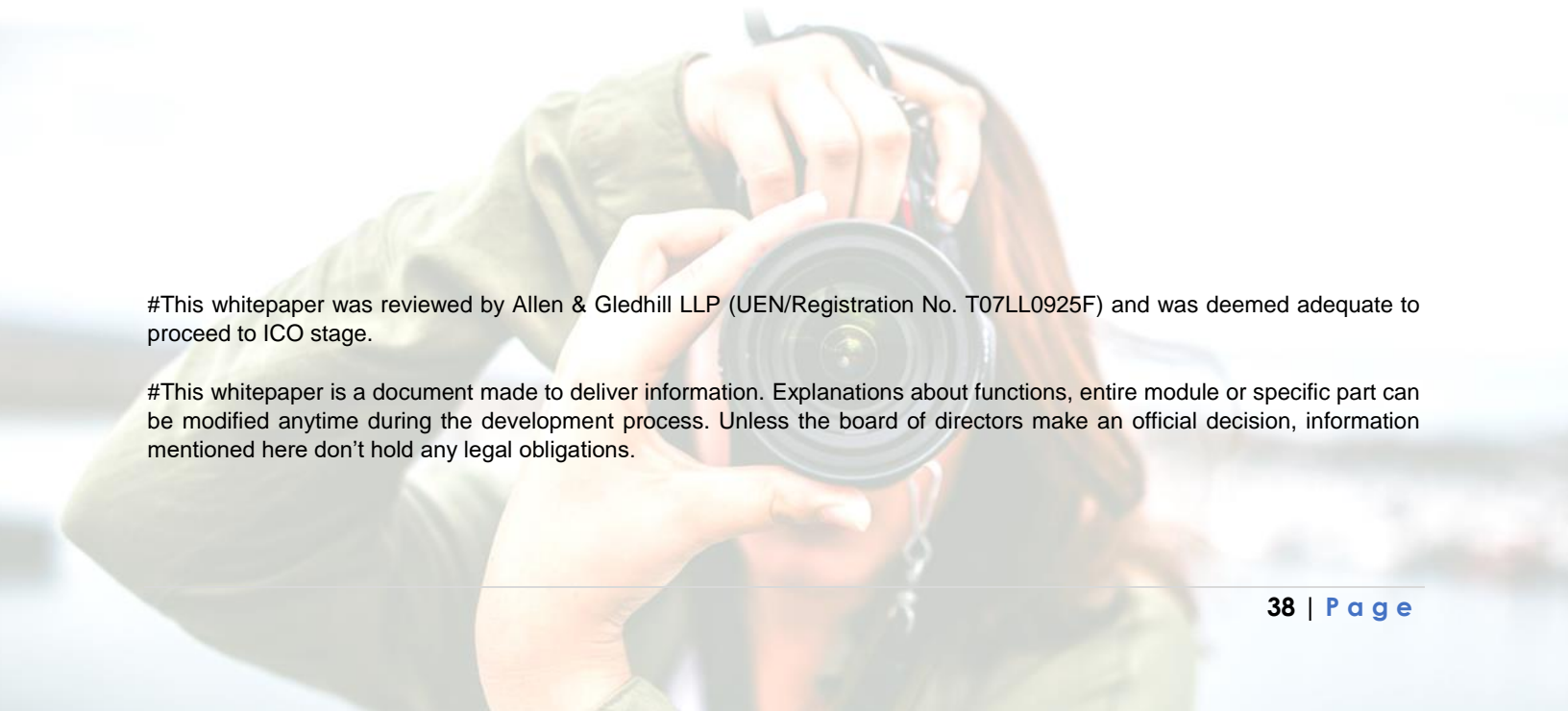
Risks associated with taxation: The tax treatment and accounting of the Tokens is uncertain and may vary amongst jurisdictions. You must seek independent tax advice in connection with purchasing the Tokens, which may result in adverse tax consequences to you.





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 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.



#This whitepaper was reviewed by Allen & Gledhill LLP (UEN/Registration No. T07LL0925F) and was deemed adequate to proceed to ICO stage.

#This whitepaper is a document made to deliver information. Explanations about functions, entire module or specific part can be modified anytime during the development process. Unless the board of directors make an official decision, information mentioned here don't hold any legal obligations.