

BlockChain Global High-End Business Application Ecology



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# Preface: The Evolution of the Digital Economy

Blockchain technology has given the world a powerful trust less software solution that anyone can use and customize. Despite still being an experimental technology, it is already disrupting industries on a global scale, proving that it can be a viable solution to more efficient value transactions, decentralized ledgers, and automated operations executed by smart contracts.

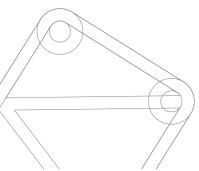
A fundamental reason why blockchain technologies is so successful is because these tasks previously were performed by central authorities or companies that charged hefty fees or restricted participation unethically. They abused their position as a "trusted authority" which allowed the blockchain to flourish as it performed the same function without needing a third party that had disproportionate control.

The very first example of disruption can be seen in the rise of Bitcoin and other digital currencies, which have provided a viable method to transact value. Previously companies had to rely on traditional national fiat currencies to perform transactions of value, suffering from high fees or restricted access. These fiat regimes created global kingdoms whose citizens and companies could not cooperate without subjecting themselves to the oppressive policies of the central authorities.

With the rise of Blockchain 1.0 and digital currencies, two parties are free to make transactions without the need for trusted third parties, providing a cheap and freely accessible solution to the first basic fundamental principle of trade and commerce.

Blockchain 2.0 saw the creation of Ethereum's open source smart contracts, which is set to further disrupt the nature of global commerce and economy by enabling trust less low cost operations available to all. Traditional contracts required a neutral third party to enforce terms of a contract. Usually a law firm or banking institution would provide this service for a significant fee, restricting these important services for only the wealthy.

Now that the tools for low cost transactions and operations are open to all, the race has started to see who can offer the best ecosystem of services and resources resulting in the most value to all parties, especially those that were denied or marginalized by the current regime.





# Introduction

In the era of globalization, being able to effectively cooperate with customers and vendors around the globe is the gatekeeper to success. The challenges of cross border payments, different regulatory environments, and unfamiliar language or customs have prevented businesses from realizing true globalization.

Only larger organizations that can hire the high end business travellers, who are able to overcome these challenges, are able to engage the global opportunities. However even these talented individuals are limited to their own special region of familiarity, requiring another high end business traveller to engage a new region.

The EKKOBLOCK software platform, developed by the EKKOBLOCK, will connect high end business travellers with supporting infrastructure to engage new industries by leveraging block-chain technologies to provide the essential services and transaction infrastructure to better engage customers, and efficiently enable access to additional markets.

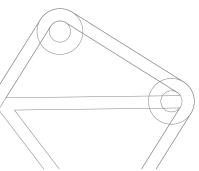
Adhering to the concepts of open participation and incentivize community development, EKKOBLOCK users can easily open an account to access the platform tools as well as be incentivize for continued use. Rewards, incentives and promotions will be tailored to the a user's profile history, ensuring value for all parties, which in turn encourages further use, resulting in positive feedback loop that continuously increases the value of rewards and benefits.

As a user's profile matures, analytics mechanisms will identify potential strategic opportunities or markets, actively supporting the development of the community to realize a new economic paradigm.

#### Scope of Target Businesses

Business is a broad concept that refers to all matters related to the negotiation, purchase and sale of goods and services across many industry sectors, each with their own unique set of needs and requirements to execute fundamental transactions and operations.

One exception is the underlying practice of business travel, which remains an important part of the business process. The process of building interpersonal relationships by engaging people face to face has not been effectively replaced by virtual meeting or video conferencing technologies. Face to face meetings and social activities, especially for cross-border business, is still the most effective channel for conveying information, exchanging ideas and building rapport to succeed.

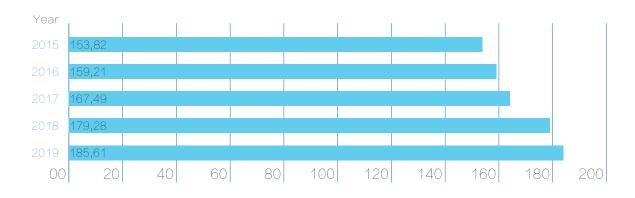




#### Scale of the Business Travel Market

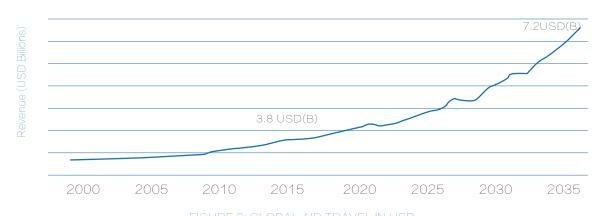
Business travel and associated services such as lodging, meals, and entertainment are a huge and complex cost incurred during business negotiation. Moreover, the costs tend to multiply depending on the number of travellers, pushing EKKOBLOCKS to be more efficient, resulting in travellers being high performance executives who require premium services and accommodations.

According to statistics, the turnover of high-end hotels reached 85 billion US dollars in 2015 alone.



Revenue(USD Billions)
FIGURE 1; High End Hotels Revenue Worldwide

In 2016, the volume of global air travel has exceeded 3.8 billion US dollars, and in 2035 this number will exceed 7.2 billion US dollars.



This is just the tip of the iceberg of the entire business travel market, as important related costs such as high end dining and premium gifting are also huge growing markets in themselves.

These costs tend to be somewhat predictable, regularly following business cycles, resulting in ucrative rewards programs offered by vendors and service providers. However due to the global location of business opportunities, only large chains, franchises, or multinational companies



can offer these programs, resulting in non-competitive markets which favour large corporations.

Some rewards programs are so successful, they are able to discourage customers from using other vendors due to the huge rewards and benefits they would be sacrificing. Some more successful examples are the Diner's Club card, Star Alliance members, or IHG and Club Carlson.

#### Challenges of globalization that leads to centralization

Centralized service providers have an incentive to have complete control over their members, as their business model is based on the number of members actively using the platform services and vendors. They also enjoy significantly high barriers to entry as newcomers must first build a wide range of services in all locations of interest to their members. This can be difficult as the most desirable locations generally already have highly competitive agreements with major platforms.

The centralized service provider model have been so successful in retaining customers, their business models have been copied by new, less ethical companies that aggressively attack the market. The fierce completion has resulted in several problems with centralized platforms practiced by both new and existing platforms.

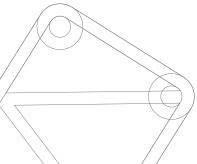
In order to remain competitive, all platforms must provide better rewards, usually by sacrificing referral revenue from the service provider. This puts pressure on the platform to generate revenue by other means such as tampering with or selling usage data, advertisements, or licensing services to other parties

#### Weaknesses of Centralized Data

As a centralized platform, tampering with user or vendor data is too tempting to ignore. User or vendor reviews, ratings, or details are all stored on private or third-party servers. This exposes the data to the risks of tampering, whether maliciously by hackers or deliberately by the platform itself. To increase revenue, the platform is tempted to leak user data, or allow a vendor to pay for a favourable rating/ranking, or deletion of poor reviews.

The details of a traveller's itinerary route, personal identity data and history are stored on a third-party platform. The ownership of personal data is essentially in the hands of the platform party. The privacy protection of personal data is not always secure, and regularly leaked to unauthorized parties.

By using a blockchain infrastructure to record data, and smart contracts to distribute rewards and benefits, EKKOBLOCK can guarantee the protection of users and vendors from data tampering and manipulation of benefits. The transparency and openness of the platform data and rewards schemes brings a competitive ethical standard.



#### Unethical ads

Ad revenue is a key revenue generating model for many internet businesses. Its power to generate revenue has caused companies to spam their users with ads, causing customers to complain and feel intruded upon. This is especially true if the ads are unwelcome or unrelated to the customer's interests. To further add to poor experience, customers often times are forced to watch the ads, without an option to opt out, becoming an unwilling revenue generating resource.

EKKOBLOCK takes a customer focused approach, using smart profile matching to ensure offers always benefit the user. In addition to matching the customer profile to the most appropriate vendor or service provider, the platform also takes into consideration the travellers immediate needs, anticipating services and vendors of interest based on their behaviour data. Immediately stepping off an airplane, a traveller can expect a taxi pickup service, or discount on nearby prescription medicines, but promotes hotels only if the customer has not yet made a booking.

## Unethical third party gatekeepers

A common practice for service providers to increase their market coverage is to license their service to a third party. Instead of directly using the services from the service provider or supplier, a user might go through a third party platform which consolidates services from multiple service providers, collecting a small service fee in the process.

While this can help to give more options to the customer to choose from, it also lets the third party manipulate the selection of service providers or deny listing for any reason, such as refusing to pay high listing fees. EKKOBLOCK improves upon this by removing the barrier to entry, and implementing an unbiased transaction based ranking mechanism.

A service or vendor only needs to create an account to start building their profile, but to be listed; they must build their user profile by completing transactions. As their profile grows, their listing ranking also

## EKKOBLOCK DESIGN PRINCIPLES AND OBJECTIVES

#### EKKOBLOCK Key services

The Ai Ke Tribe development EKKOBLOCK will provide full support with minimal requirements to welcome all business travellers and service providers to be connected to each other. The EKKOBLOCK platform is designed to realize a decentralized open business platform based on three fundamental services;

#### Open Smart Solutions Platform

All users and vendors can leverage the latest smart contract tools to operate their business supported by our blockchain based registry to quickly develop a robust user profile which will result in matching business and services strategic opportunities.

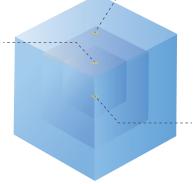


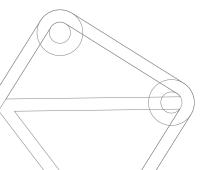
FIGURE 3: EKKO OPEN BUSINESS PLATFORM

# Comprehensive and Secure User Profiles

Personal identity is the fundamental building block to trust and commerce. The user profiles can be used to securely store important personal identification, biometric data and travel documents to be used for KYC and security clearance when travelling.

#### Global Currency Support

All major currencies will be supported in the EKKO-BLOCK ecosystem, eliminating currency conversion obstacles and allowing high end business travellers to have a truly global wallet making all users and vendors truly global. Retail businesses can engage customers from anywhere in the world without having to worry about currency conversions challenges. Since all transactions are supported by our blockchain infrastructure, transactions can enjoy minimal fees far below traditional channels.





All transactions and cooperation history will be recorded for anonymous analysis by both the incentive rewards and security auditing systems. Encrypted behaviour data will be used to effectively match services or opportunities of interest such as potential suppliers, hotels or dining and entertainment. Users and vendors can be confident that their personal information will be private key encrypted and accessible only if with the proper permissions.

By building off these fundamental services, users and vendors will be guided to the most valuable business opportunities, and be provided with the tools to engage those opportunities, so that they can focus their efforts on their customers or strategic partners.

# EKKOBLOCK Tools, Services, Value and Advantages

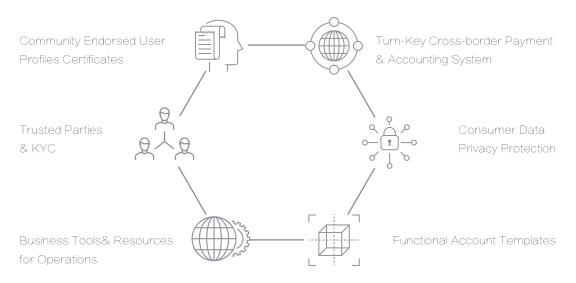


FIGURE 4: EKKO TOOLS, SERVICES VALUE & ADVANTAGES

### Turn-Key Cross-border Payment and Accounting System

Payment gateways and exchange backend to facilitate multi currency transactions between anyone and anywhere. Support for common business payment practices such as escrow, open accounts, multi party or scheduled payment contracts.

#### Community Endorsed User Profiles Certificates

Everyone joins the platform as common user, but can quickly become a specialized role taker depending on their user behaviour and verifications they complete. As part of our KYC and user profile system, professional credentials and certifications can be verified and recorded in the platform to help with matching and promoting professional services. For example a local notary can submit their credentials and personal identification to the system, and once verified by other verified notaries, is endorsed and promoted by the system to verify professional credentials for other users such as lawyers, accountants, or medical professionals. Their services are permanently recorded to protect against poor service which could be disputed and entered into the system permanently if found to be valid.



#### Functional Account Templates

User profiles are also implementing deterministic account permissions to protect the users and enforce secure practices by restricting access to functions, features, data or accounts based on the profile. Profiles are conditionally awarded in a closed environment to further guarantee the control and protection of data and permissions. A permissions management system based on hierarchical certificate profiles implemented by a machine trust intermediary to provide functions and permissions for different roles to avoid issues such as impersonation of legitimate users, information theft and tampering, illegal intrusion and virus attacks, and transaction vulnerabilities.

#### Trusted Parties and KYC

EKKOBLOCK adopts a global asset, user and application white list to support infrastructure trust, optimization and rewards mechanisms.

#### Consumer Data Privacy Protection

The user data of EKKOBLOCK secures the privacy and permissions by being completely distributed and encrypted. There is no central database data that is stored by each node. At the same time, access permissions are separated, such as identity and itinerary access, and read write authority, to minimize risk in the event of compromised user credentials.

#### Business Tools and Resources for Operations

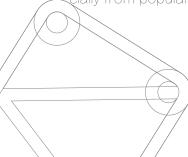
Smart contract tools are open source so that the community is free to modify and implement as needed to suit their specific business needs. Basic operations such as payments, database updates, or communication tools are immediately accessible to all users, and easily customizable.

If a company found that they were regularly servicing a customer in a new region, the payments and data reporting smart contracts could be easily modified to reflect the specific case such as timing of payments or conversion of data formats to be entered into a database.

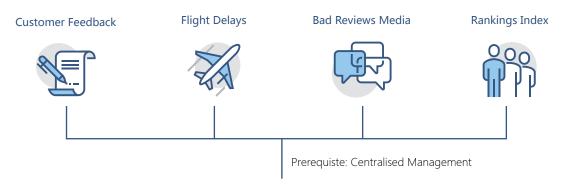
Commonly used tools proven to be useful in fundamental business operations will be actively supported and optimized by the EKKOBLOCK to be used by other platform users. Developers and contributors of the tools will be recognized and rewarded for each use by the platform, to further incentivize continued community development.

#### Evaluation Dispute and Verification System

In the current market environment, the trust between consumers and service providers such as between hotel booking platforms and business users is maintained by the platform operator in a private centralized system. The users are concerned about the hotel's actual accommodation environment and the authenticity of consumer evaluations. The hotel is worried about bad reviews, especially from popular media or influencer channels.







**EKKO BLOCK** Evaluation Dispute and Verification System

FIGURE 5: EKKO DISPUTE & VERIFICATION SYSTEM

The EKKOBLOCK understands the importance of user reviews, and the benefits or damage they can bring. To ensure healthy development, feedback mechanisms are designed to allow users to "make mistakes" to learn from, resulting in better service and honest usage, without permanently damaging the reputation of the user.

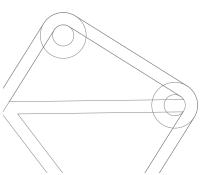
Negative or false reviews and evaluations can be disputed by the account holder by following a dispute verification procedure relevant to the type of the evaluation. If the account holder is able to successfully pass the dispute procedure, the review will be hidden from view, but will still be counted in ratings, rankings index or rewards distribution calculations.

We want users to spend time and effort improving themselves using constructive feedback and experimenting without the fear of crippling setbacks.

#### Decentralized Incentives, Rewards, Staking and Promotions

The EKKOBLOCK system will distribute incentives to encourage community driven platform growth. Our goal is to reward those community members that create value pathways or tools for the community to use. Ideas and enablers are only great if they benefit a large portion of the community rather than being concentrated into the hands of a small percent. We want to drive development in the areas of:

- 1.Community tool creation
- 2. Connecting new markets, opportunities or users
- 3. Successfully completing transactions, verifications or operations





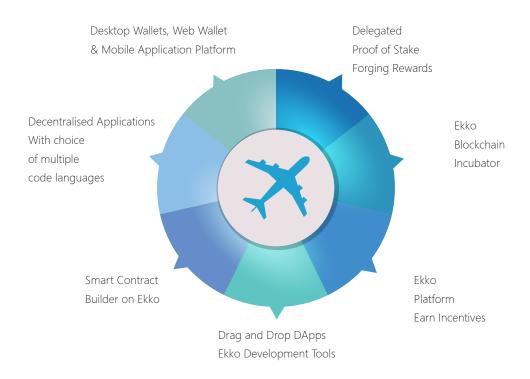


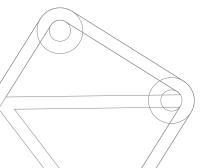
FIGURE 5: EKKO DISPUTE & VERIFICATION SYSTEM

Additional rewards, incentives or sponsorships can be distributed through decentralized staking or promotional schemes. This will allow the system or platform users to promote development in a certain direction by rewarding accumulation of a specific set of assets, characteristics, or operations.

For example, the platform could distribute tokens based on a certain wallet size to increase spending power of that demographic. A vendor could incentive suppliers to trade a specific kind of material or brand by offering bonuses for gaining a specific profile tag.

This model of incentivize rewards systems is a common practice of existing hotel chains or travel booking platforms to drive customers to use a certain brand of services or travel to a certain destination.

By decentralizing the promotions and incentives systems, platform users are free to actively develop a certain business resource, a set of controls that was previously reserved only for the platform owners/operators.





# EKKOBLOCK Design strategic goals & MILESTONES

The EKKOBLOCK is committed to establishing a decentralized business ecosystem, enabling effective collaboration between trusted sources for global high-end businesses, interoperability of data sources, and engagement of services. EKKOBLOCK's ecosystem of trust will serve as the infrastructure and foundation for industries and markets to collaborate and globalize across resulting in a hyper efficient global business sharing economy.

EKKOBLOCK has identified milestones to realize the vision of a global business platform, separated into a 3 phase strategic roadmap:

1. Recruit Business travellers to reach the world - Business travellers are ideal to help build the ecosystem and tools as they are exposed to the widest range of business needs from all regions of the world. In their daily operations, business travellers will encounter all aspects of business including - logistics, finance, conferences, product education, e-commerce, and public welfare.

Supporting business travellers and their counterparts, naturally lays the foundation for a robust global platform.

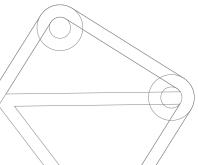
By providing the best services for high end business travellers, we are also helping their business partners. We will further add value to both parties by providing businessoperations templates to cater to their specific operations.

2.Launch Global Operations Template Vault - As more and more business travellers and vendors use the platform and tools, certain "power users" will emerge. They are the individualsand companies whose regular use of the EKKOBLOCK platform and its tools have resulted in popular turnkey operations templates that have been used by many users.

These turnkey operations solutions allow users from anywhere in the world to conduct standard business operations with minimal support. Relevant business aspects such as financing, sourcing, accounting, logistics, legal certifications and due diligence etc. can be optimized into turnkey templates, where primary data is collected from EKKOBLOCK user profiles.

Based on the EKKOBLOCK technologies stack and vault of smart contract applications and user profiles, turnkey operations solution templates can be created to automate operations such as organizing conferences or exhibitions, setting up a new supply chain, or launching products in a new market.

3. Cross Industry Application to Realize the Global Business Sharing Economy - Once the operational templates are optimized, the EKKOBLOCK services can be applied across different industries beyond high end business travel. As more and more industries leverage the common operational tools, decentralized access to their unique resources becomes available, creating a global business sharing economy in which resources can be used by business of every scale from small family businesses to multinational corporations.





As more and more Chinese enterprises go out of the country under the encouragement of policies such as the "Belt and Road Initiative", the demand for overseas business travel and international travel management will also increase. As a result, the business management ecosystem of EKKOBLOCK, will be in high demand. It will not only help companies improve their own business management standards, but also identify matching global business service providers.

Efficient integration, at the same time can adapt to national policies and laws and regulations of the local market, effectively controlling the costs of the company, and at the same time helping to expand its overseas business.

#### Use case applications examples

The EKKOBLOCK blockchain open source project and underlying protocols, allows business organizations, individuals, alliances, and entities to collaborate across all industries, including financial services, social welfare, tourism real estate, cross-border e-commerce, international logistics, commercial real estate, business travel services and more.

#### Conferences and Hospitality Services

The EKKOBLOCK can be opened to all travel conference providers through the platform API. EKKOBLOCK's quick and convenient payment system and smart contract operational template scan be customized easily, enabling the EKKOBLOCK tourism service to be globally accessible, automated, and personalized. Independent settlement, independent operation, protection of users, and the creation of intelligent business travel and customized services are all unique features that differentiate the EKKOBLOCK tourism service from traditional platforms.



Supporting hospitality services to show people where to eat, live, travel, shop and entertain are also essential. Using blockchain technology to launch more friendly loyalty programs, improves tourism user identification management, optimizes baggage tracking, and simplifies payment processes. The code on the blockchain allows these seamless transactions and rules to occur without intermediaries, reducing the cost for consumers to use back-end infrastructure because there is no institution that charges for running the service.

#### Financial Services

EKKOBLOCK's solution platform uses the open and immutable properties of blockchain technology, and decentralized trust mechanism to support fundamental financial infrastructure and various types of financial services. Assets, such as equity, bonds, notes, warehouse receipts, fund shares, etc., can all be recorded on the EKKOBLOCK blockchain and become digital assets. They can be stored, transferred, and traded on the EKKOBLOCK system.



The EKKOBLOCK ecosystem will initially focus on high-end business travel, cross-border payments, insurance claims, securities transactions, and bills. Using cross-border payments as an example, through the RTXP protocol and blockchain technology, direct interactions between cross-border payers are established, the processing flow is simplified, real-time settlement is realized, transaction efficiency is improved, and business trade costs are reduced.

#### Social welfare

The data stored on the EKKOBLOCK blockchain is highly reliable and cannot be tampered with. It can be leveraged by public welfare services to ensure that the information is authentic, secure, and transparent. The relevant information in the public welfare process, such as donations, fundraising details, fund flow, and feedback from the recipients, can all be stored on the EKKOBLOCK blockchain.



To guarantee sufficient privacy protection of project participants and other relevant laws and regulations, public disclosures are made conditionally so as to facilitate public and social supervision and ensure the healthy development of social welfare. EKKOBLOCK social welfare applications can effectively leverage blockchain related technologies to charitable and humanitarian work and promote the development of charitable causes.

#### International Logistics

The application of EKKOBLOCK in international logistics is mainly to use blockchain technology to integrate and accelerate the circulation of information in the logistics industry, effectively shortening the business cycle. Smart contracts are designed in accordance with international practices to integrate with international logistics networks and facilitate the international flow of goods and exchanges. The overall goal of international logistics is to provide intelligent services for international trade and translational operations, that is, to choose the best method, to guarantee quality, quantity, and timely delivery of goods from suppliers in a certain country at the lowest cost and minimum risk.



#### Commercial Real Estate

The EKKOBLOCK platform has unique advantages in property registration and payment transactions in real estate. Existing solutions have problems such as lack of transparency, cumbersome procedures, fraud risks, and errors in public records. The EKKOBLOCK uses blockchain technology to record and track information on land ownership, deeds, liens, etc., to ensure the accuracy and verifiability of related documents.



The EKKOBLOCK platform supports digital currencies that can connect to global currency infrastructures and realize paperless, real-time transactions in commercial real estate. In terms of specific operations, the EKKOBLOCK platform can be used in the protection of housing property rights, reduce property search time, share ownership information, and protect against fraud in the real estate transaction process, to improve the efficiency of the real estate industry.



## Technical Features and FKKOBLOCK

#### EKKOBLOCK Lab

The EKKOBLOCK Lab is the research organization run by the AiKe EKKOBLOCK focusing on block-chain technology. The lab has gathered experts in the field of technology development, commercial applications, and industrial strategies. Its primary duty is to develop the EKKOBLOCK ecosystem technologies, but also conducts research and discussion, provides guidance for businesses and enterprises, and promotes blockchain technology to serve the progressive development of social economy.

The EKKOBLOCK Lab EKKOBLOCK;

#### PHIL EVELEIGH

#### Chief of Operations and Technology

Skilled COT and business development professional with a proven track record in the financial services industry. Skilled in leading global business activities, operations management, technical support, service management, IT security & strategy and finding solutions for insurmountable challenges.

## RICK COOPER

#### Support Engineer

With over 8 years experience in technical support, Rick utilizes his passion for networking and solving complex technical issues into practice on a daily basis, creating real value for both customers and colleagues.

#### BEN FARNBY

#### Blockchain Architect Founder

Senior engineering and management positions. Holds BSc (cum laude) in Mathematics, Economy and Psychology.

#### TOM SHEPHERD

#### System Administrator

Experienced IT specialist with over 10 years' experience. Always seeking improvements and the latest technology. Self-learner with a passion for new technologies and ensuring that all office functions run smoothly 365 days a year (366 in leap years!).

#### GEOFFERY PAYNE

#### Blockchain & Technical Advisor

Geoffrey comes with nine years experience designing and building countless enterprises' NET applications. With a deep understanding of Solidity and smart contract development on the Ethereum blockchain, he is an essential advisor to our team. Geoffrey has a business view with a developer's expertise.





#### Technical Features and Advantages

The EKKOBLOCK platform, developed by EKKOBLOCK Lab, is designed using a seven-layer architecture consisting of the data layer, network layer, consensus layer, incentive layer, contract layer, and application layer. Features and benefits are as follows:



FIGURE 7: EKKOBLOCK LAB – 7 LAYER ARCHITECTURE

## Technical Architecture

#### Data Layer

The data structure of the blockchain linked list ensures that the data records are transparent, irreversible, and immutable, which ensures the security and credibility of the data. Based on the blockchain-based high-redundancy storage mechanism, blockchain storage will have an impact on the scalability and performance. The EKKOBLOCK framework design will use a multi-level node system to select different storage strategies based on different node applications;

- 1. The Consensus node Entrusted by EBK holders, they are responsible for participating in consensus mechanisms and signing blocks.
- 2. The Master node Responsible for the preservation of complete data, and only participate in interception and broadcast. Master nodes do not participate in consensus.

Since not all nodes have the same requirements, they either save complete data or participate in accounting (mining) and rebroadcast transactions. The design of the EBK multi-level node system clarifies the overall division of labour, and improves system efficiency.





FIGURE 8: EKBC Multi – Level System Diagram

#### Network Layer - Distributed File System IPFS

IPFS (Inter Planetary File System) is a point-to-point distributed hypermedia distribution protocol that integrates the best distributed system ideas of the past few years, providing everyone with a globally uniform addressable space.

## Consensus layer

EBK will use the latest DPoS consensus algorithm. DPoS solves the problems of performance and energy consumption very well, and has high performance and high consistency. It is extremely suitable for high-end business industries where such data is frequently generated and the real-time accounting requirements are higher.

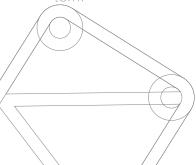
The traditional blockchain consensus model needs to reach a certain number of block confirmations to complete the confirmation of the chain within a certain probability. That is, when the block is added, it cannot be 100% guaranteed that the state will be the final chain. Final consensus generally needs 6 blocks for 99.99999% confirmation of the transaction. The finality of the transaction under this model is weak, and it is not suitable for high-end business applications. The DPoS consensus algorithm can solve this problem and ensure block consistency, which is very suitable for the high-end business industry.

#### Incentive layer

The consensus node will receive corresponding compensation for each block generated. The periodic consensus node can collect bonus points into its own account and apply for redemption through the EBK.

Users can hold and use EBK to obtain various types of VIP treatment services in the high-end business ecosystem and enjoy preferential discounts.

Ratings, comments, and evaluation of other users within the EBK system use a Proof of Comments mechanism to reward users for objective evaluation to promote the healthy development of the ecosystem.





#### Contract layer

Smart contract technologies include transaction processing and data synchronization mechanisms. The smart contract system will set the trigger condition according to the description of the event. When the trigger condition is satisfied, the smart contract will automatically execute the specified content of the contract. Smart contracts are irreversible and once they are completed, they cannot be modified or deleted.

EKKOBLOCK Lab will focus on creating smart contract module designs, and develop common modules based on different business needs. When customers need to perform business operations, they only need to set minimal parameters and requirements to quickly execute smart contracts which take effect immediately, ensuring the safe and timely transfer of funds for relevant parties, resulting in an efficient and reliable way to perform business operations while simultaneously safeguarding the participants' property rights.

#### Application Layer

To support community developers, the EKKOBLOCK Lab EKKOBLOCK will provide a wealth of developer tools, including smart contract development IDE, block browser, plug-in support for various popular IDEs, debuggers, simulators, smart contract formal verification tools, back-end SDKs for various high-level languages, mobile SDKs, etc. to encourage more companies to utilize the blockchain, and join the ecosystem.

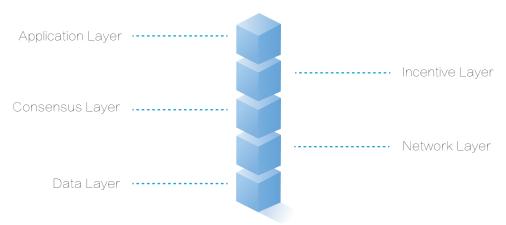
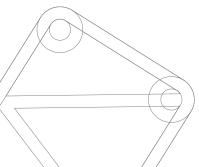


Figure 9: Technical Architecture of EKKOBLOCK - Layers



# Technical support for later development Development of public chains

A public chain is a blockchain that anybody in the world can read and send a transaction. Anybody can participate in the consensus process. The consensus process determines which block can be added to the blockchain and determines the current state. A public chain is generally considered to be "fully decentralized."

AiKe EKKOBLOCK will develop its own public blockchain, create its own wallet, and encourage more high-end merchants and high net worth individuals to join and create their own merchant Tokens using the EKKOBLOCK public chain as a standard, integrating their business ecosystems and leveraging the shared ecosystem resources.

The EKKOBLOCK public chain will have the following advantages:

- 1. Protecting users from the influence of developers: In the public chain, program developers do not have the right to interfere with users, so blockchain can protect users who use the programs they develop.
- 2.Low barriers to access: Easily accessible to anyone with sufficient technical capabilities, as long as there is a computer that can be networked to meet the access conditions.
- 3.All data is public by default: Although all associated participants hide their true identities, this phenomenon is very common. They guarantee their own security through their visibility, where each participant can see all account balances and all their trading activities.

Standard support for later development - ERC-20 token

EKKOBLOCK will bring global high-end merchants and members to the industry and develop the most important operational tools for various applications and functions in the high-end business ecosystem. Due to the time required for the development of the EKKOBLOCK public chain, initially the platform token will be issued by according to the Ethereum public chain and published on the Ethereum blockchain. The token conforms to the issuance and application of the ERC-20 standard.

The ERC-20 based token (EBK) will be used to exchange for the EKKOBLOCK public chain token, EBKC.

After the EBKC project partners and the AiKe EKKOBLOCK have completed the public chain development, and created a unique wallet, EBKC will be launched on its own open source blockchain. Under this plan, the original EBK based on ERC-20 will be converted to the EBKC issued on the EBKC blockchain on a 1:1 basis, and all its functions, balances and rights will be transferred.

The EBKC public chain will reserve a certain percentage of EBKC as an incentive for the mining mechanism. Because the EBKC is based on ERC-20 and is suitable for the mining mechanism of the ETH system, the incentive of the mining mechanism will be held by the EBKC Foundation. After the development of the public chain, the incentive will be released by the foundation.

The EBKC public chain will allow merchants in high-end business alliances to publish their own Tokens based on this public chain. The relationship between these derived tokens and EBKC is similar to the relationship between ERC20 token and ETH, following similar rules stipulated in the EBKC public chain. New tokens are stored in EBKC and leverage the same mining mechanism of the EBKC public chain, eliminating the need to reserve the mining incentives in the token issuance process.



#### 1) ERC-20 standard

The ERC-20 standard was introduced in November 2015. Tokens using this rule exhibit a universal and predictable approach. Any ERC-20 token can immediately be compatible with Ethereum wallets (almost all wallets that support the Ethernet, including Jaxx, MEW, IMToken, etc.) Since the exchanges already know how these tokens operate, they can easily integrate these tokens. This means that, in many cases, these tokens can be traded immediately.

ERC-20 is the standard interface for each token. ERC-20 tokens are only a subset of Ethereum tokens. To be fully compatible with ERC-20, we will integrate a specific set of functions (interfaces) into their smart contracts so that they can perform the following operations at a high level; obtaining total supply of tokens, obtaining account balances, transferring tokens, and approving Spend tokens.

## 2) The significance of using the ERC-20 standard:

ERC-20 allows seamless interaction between other smart contracts on the Ethereum blockchain and decentralized applications so that when the EBKC public chain has not been developed; there is still a cryptographic token that can act as a "circulation tool" in the EBK ecosystem.

#### 3.7.1 DPoS Model

Delegated Proof of Stake (DPoS for short) is a blockchain consensus algorithm used by EBK. In the cryptocurrency technology, a consensus algorithm is used to ensure the security and reliability of the entire blockchain network. Well-known consensus algorithms include the proof-of-work (PoW) used by the Bitcoin network, and the proof of interest used by Peercoin and NXT. However, none of these consensus algorithms can solve the transaction performance problem, especially the PoW algorithm which consumes a large amount of power for calculations. Appointment of equity ensures that DPoS solves the problem of performance and energy consumption.

The witness mechanism is used in the DPoS algorithm to solve the centralization problem. There are a total of N witnesses who sign the blocks, and these witnesses are generated by voting using the body of the blockchain network. Due to the use of a decentralized voting mechanism, DPoS is more democratized than other systems. However DPoS does not completely remove the requirement for trust. Trusted entities that represent the whole network to sign the block under the protection mechanism ensure that the behaviour is correct and without prejudice. In addition, each signed block has a proof that the previous block was signed by a trusted node. DPoS eliminates the time spent waiting for a certain number of blocks to be verified by untrusted nodes.

By reducing the requirement for confirmation, the DPoS algorithm greatly improves the speed of the transaction. By trusting a small number of honest nodes, unnecessary steps in the block signature process can be removed. DPoS blocks can accommodate more transactions than PoS or PoW, making encrypted digital currency transactions closer to centralized clearing systems like Visa and Mastercard.

The DPoS system is still somewhat centralized, but this centralization is controlled because each client has the ability to decide which nodes can be trusted. DPoS allows a blockchain network to retain some of the key advantages of centralized systems while at the same time guaranteeing decentralization. Through fair elections, the system makes it possible for anyone to become the principal representing the vast majority of users.



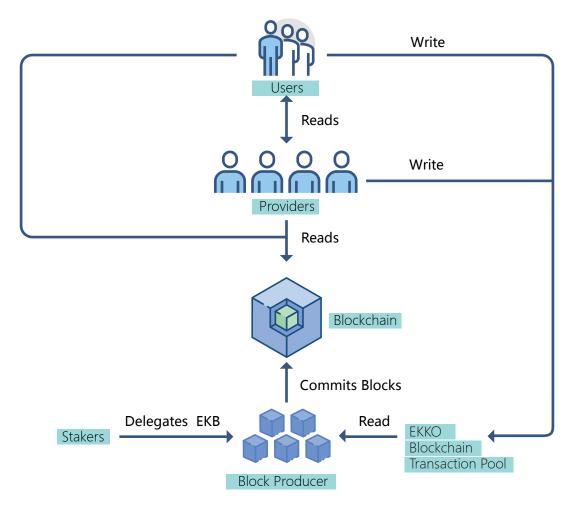


Figure: 10 EKKO DPoS

# Rational Logic:

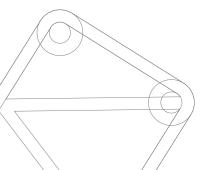
Enable equity owners to determine the bookkeeper by voting

Maximize the dividends of equity owners

Minimize the consumption of network security

Maximize network performance

Minimize the cost of running the network



## DPoS Specific Advantages

#### 1) The equity owner has control

The fundamental characteristic of DPoS is that the owner of the rights retains control and thus decentralizes the system. Just as voting mechanisms are also flawed, DPoS is the only viable way of managing the company's common ownership. Fortunately, if you don't like the people who run the company, you can leave the market by selling equity. This feedback mechanism can make equity owners more rational than ordinary citizens when they vote.

Each equity owner determines the signature certifier of the block by voting. Any person who has more than 1% of the votes can participate in the board of directors. All representatives form a "Board of Directors" and sign blocks in turns. If a director misses the opportunity to sign a block, the customer will automatically give the vote to others. Ultimately, these boards that missed signing opportunities are disqualified and others can join the board. Board members receive a small amount of tokens as incentives to motivate online time and participate in elections. Each director must use 100 times the average reward for a single block as a margin to ensure that he has at least 99% of his online time.

## 2) Appointment of workload proof pool

In the current bitcoin network, users need to choose to participate in a mining pool for profit, and each mining pool has more than 10% of the total hashing power. The operator of the mine pool is like an appointed representative of a miner. Bitcoin expects users to switch between pools to avoid over-centralization, but the top five major pools control the entire network and require manual user intervention if one of the mining pools is defective. If a mining pool is dropped, all miner work is wasted. It is difficult to choose which pool to mine.

Reasons for randomly selecting from all users:

- a. Ordinary users are not online most of the time
- b. Attackers can use their rights to control the network without others
- c. It becomes impossible to generate random numbers in decentralized networks due to no mining

## 3) Extensibility

Assuming that the confirmation costs and commissions for each transaction are fixed, the degree of decentralization is also limited. Assuming that the verification cost is equal to the commission, the entire network is completely centralized and can only support one verification node. Assuming that the fee is 100 times the verification cost, the network can support 100 verification nodes.

PoS require a large amount of fees to ensure its proper operation, and the appointment mechanism is the only way for PoS to work efficiently. The pool of rights can be used in PoS, but this turns into some form of DPoS. Appointment representatives cannot obtain actual benefits from the mining pool, because the verification costs will consume most of the transaction fees.

The cost of decentralization is proportional to the number of verification nodes, and this cost cannot be eliminated. From the perspective of scale, the existence of such costs will eventually centralize the system, and the appointment of the representative system is the only solution. This kind of centralization should be designed well in the early stages of system development to facilitate better user control rather than passive evolution with unintended results.

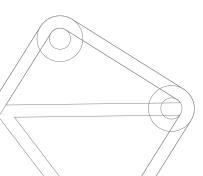


#### Governance structure

The EKKOBLOCK ecosystem will be composed of multiple types of entities such as entity certification service providers, industry application service providers, communities and individuals.



The EKKOBLOCK and the EKKOBLOCK foundation forms the governance structure of the EKKOBLOCK ecosystem and jointly promotes the development, advocacy and promotion of governance transparency, ensuring the safety and harmony of the ecological system.





## EKKOBLOCK token metrics

Tokens full name; EKKOBLOCK TOKENS

Token abbreviation; EBK / EBKC

Total amount: 2,100,000,000

smart contract address; 0x0b45c3c3eac121263a6235780a7972ae3065343f

Locking address; 0xfB955f286e3366409b6Cf1Ee858648609C65Fc2C

Number of locks: 630,000,000

Release time; 2019-05-01 00;00;00

Crowdfunding Address; 0x0b45c3c3eac121263a6235780a7972ae3065343f

Crowdfunding start time: 2018-05-01 00:00:00

Crowdfunding end time: 2018-12-31 00:00:00

conversion ratio: 1 ETH = 2,000 ebk

Open Source Code Certification

https://etherscan.io/address/0x0b45c3c3eac121263a6235780a7972ae3065343f#code

Block Browser:

https://etherscan.io/address/0x0b45c3c3eac121263a6235780a7972ae3065343f

EKKOBLOCK tokens (Ethereum ERC-20 standard compatible utility tokens) facilitate engagement between participants on the platform and serve as a form of access to the platform and its internal currency.

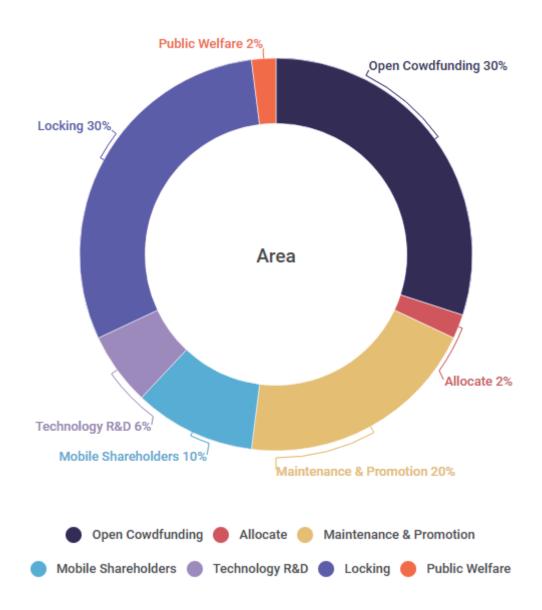
There are 3 ways participants may acquire EKKOBLOCK tokens:

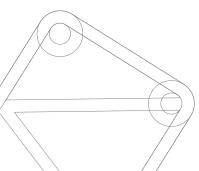
- 1. Join the crowd sale.
- 2. Buy tokens later in the crypto exchanges.
- 3. Earn tokens within the platform for performing actions and accomplishing tasks.



# Token Distribution

The diagram below explains the structure of token allocation:







# EKKOBLOCK Project Roadmap

17/ Start of the company Envisioned EKKOBLOCK ecosystem

17/ Creating Proof of Concept Expand core EKKOBLOCK with business and technology advisers

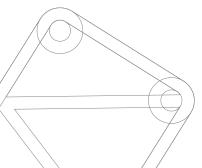
 $18 \hspace{-3pt} / \hspace{-3pt} \text{Raising funds via Crowdsale} \\ \text{Launching of the marketing campaign}$ 

18/ Expanding the EKKOBLOCK Network community Incorporating EKKOBLOCK Network Building EKKOBLOCK Network 1.0

Product development start
Expanding EKKOBLOCK Network EKKOBLOCK to prepare for global expansion
Establishing EKKOBLOCK Network in the first target country

 $18/_{\mathrm{Q3}}$  Testing and auditing EKKOBLOCK Network 1.0 before public launch

18/ EKKOBLOCK Network 1.0
Develop EKKOBLOCK Network ecosystem version 1.0 with manual on-boarding of asset generators, investors and additional service providers





## What are FKKOBLOCK Tokens?

EKKOBLOCK tokens are software with cryptographic elements that are sold as a utility appliance for the EKKOBLOCK platform. EKKOBLOCK tokens are based on the Ethereum protocol and conform to the widely used ERC-20 standard.

EKKOBLOCK tokens have their functional utility only within the EKKOBLOCK platform, and their creation is conditioned by the need to develop an internal economy in the EKKOBLOCK ecosystem that will establish transparent and fair relations among the EKKOBLOCK community.

EKKOBLOCK tokens are intended to be used by their holders only for their designated purposes. The number of such purposes may be increased over time, including, but not limited to, by means of adding new services and features available in exchange for EKKOBLOCK tokens.

EKKOBLOCK tokens are intended for experts in dealing with cryptographic tokens and blockchain based software systems.

#### Use of EKKOBLOCK Tokens

Means to use and interact with the EKKOBLOCK platform. EKKOBLOCK tokens carry the backbone functions of the EKKOBLOCK platform. The full functionality of the EKKOBLOCK platform is available only for EKKOBLOCK token holders. We plan to place the EKKOBLOCK tokens on cryptographic token exchanges, giving an opportunity to openly buy them (to residents of countries where the purchase of tokens does not violate local laws). A user seeking to enter the EKKOBLOCK platform will have to buy EKKOBLOCK tokens at such exchanges. Conversely, EKKOBLOCK tokens could be sold at an exchange if their holder would like to exit the EKKOBLOCK ecosystem.

However, legislation on the circulation of securities in certain countries, when buying EKKOBLOCK tokens, the purchaser should be aware of the restrictions on their subsequent sale and is thereby obliged to follow our instructions and/or those of the exchange when s/he resells them to other users.

Form of expression of EKKOBLOCK community opinion. The EKKOBLOCK platform will provide EKKOBLOCK token holders with the opportunity to express their opinion regarding the particular operational issues of the EKKOBLOCK business through the decentralized community voting (DCV) mechanism.

These decisions, expressed through the DCV mechanism, will serve as the advisory guidelines for the EKKOBLOCK management. The agency's management EKKOBLOCK and executives will consistently take the results of EKKOBLOCK community voting into consideration.

Form of settlement. EKKOBLOCK tokens will be used as a form of settlement in the transactions conducted within the EKKOBLOCK platform. In particular, EKKOBLOCK token holders will be able to use their EKKOBLOCK tokens to purchase services and products to be offered within the EKKOBLOCK platform.

Means to power the EKKOBLOCK platform's compensation system. The EKKOBLOCK platform builds a well palanced motivation system that encourages its agents, specifically, Promoters and Advertisers, to perform their functions better, thereby increasing the effectiveness of the entire EKKOBLOCK ecosystem and its benefits to the EKKOBLOCK community.



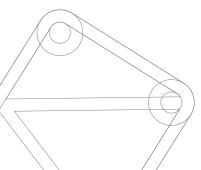
#### What do EKKOBLOCK Tokens NOT Represent?

EKKOBLOCK tokens are not securities in any jurisdiction. This White Paper does not constitute a prospectus or offer document of any sort, is not intended to constitute an offer of securities or a solicitation for investment, does not pertain in any way to an initial public offering or a share/equity offering, and does not pertain in any way to an offering of securities in any jurisdiction. EKKOBLOCK tokens are not intended to be marketed, offered for sale, purchased, sold, or traded in any jurisdiction where they are prohibited by applicable laws or require further registration with any applicable governmental authorities.

EKKOBLOCK tokens do not represent a loan to the Company. EKKOBLOCK tokens are neither debt instruments nor bonds of any kind, nor any other form of loan advanced to the Company.

Acquisition of EKKOBLOCK tokens, whether through the Token Sale or otherwise, does not grant to token holders any right of claim on Company's financial or any other assets. EKKOBLOCK tokens don't grant participation in the Company or its assets. EKKOBLOCK tokens do not provide token holders with any ownership or other interest in the Company. Acquisition of EKKOBLOCK tokens does not present an exchange of cryptocurrencies for any form of shares in the Company or Company's assets, including intellectual property. Token holders are not entitled to any guaranteed form of dividends, revenue distributions, or voting rights.

EKKOBLOCK tokens are non-refundable. The Company is not obliged to provide token holders with a refund related to EKKOBLOCK tokens for any reason, and token holders will not receive money or other compensation in lieu of a refund. No promises of future performance or value are or will be made in respect to EKKOBLOCK tokens, including no promise of inherent value, no promise of continuing payments, and no guarantee that EKKOBLOCK tokens will hold any particular value.





## Core Team and Advisors

EKKOBLOCK has gathered outstanding sports and entertainment professionals to join the project's advisory board. Here are the key advantages brought by ambassadors:

Core Team share their expertise in blockchain technology and provide connections within the global industry.

Experienced professionals who know the ins and outs of building a successful career path, help us select the most promising talents to support.



# MIKE DUNN Founder, Chief Strategist

An entrepreneur at heart, Mike has a strong track record of developing market-leading products and services, including technology start-ups. He has a wealth of international experience, including leadership roles in several companies and over 15 years' experience in financial markets.



# PHIL EVELEIGH Chief of Operations and Technology

Skilled COT and business development professional with a proven track record in the financial services industry. Skilled in leading global business activities, operations management, technical support, service management, IT security & strategy and finding solutions for insurmountable challenges.



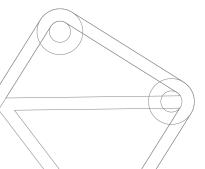
## AARON TAYLOR Team Leader

Responsible for team, always challenges the status quo and seeks holistic solutions and approaches to leadership. Focuses on added value, exceeding customer expectations and building loyalty.



# TIM GARWOOD Lead Front End Developer

JavaScript expert and Angular professional Tim has been a front end web developer for more than 12 years. His areas of expertise include web development, programming and marketing. His experience ranges from large telecommunication companies to large financial and comprehensive online stock market directories. He has since pivoted toward blockchain technologies.







# PETER KAI Core Developer

Highly effective software engineer with over a decade's experience mainly in ecommerce and fintech. Has managed international teams of developers. Strongly believes in the brilliant future of blockchain technologies.



# NICHOLAS WHISHAW Master of UX & Design

Passionate & versatile UX/UI designer driven by curiosity in user experience. Believes in the appeal of visual language and pixel- perfect design. Creates IOS, Android and web interfaces and crafted the Ekko platform & visuals.



# BEN FARNBY Blockchain Architect Founder

Senior engineering and management positions. Holds BSc (cum laude) in Mathematics, Economy and Psychology.



# JENNIE GLEESON Blockchain Security Architect

Seasoned professional of system security, cryptocurrency systems and various blockchain protocols, architecture, and implementations. An all-around player and a technology geek with proven experience in management and hands-on development



# RICK COOPER System Administrator

Experienced IT specialist with over 10 years' experience. Always seeking improvements and the latest technology. Self-learner with a passion for new technologies and ensuring that all office functions run smoothly 365 days a year (366 in leap years!).



# TOM SHEPHERD Blockchain Security Architect

Seasoned professional of system security, cryptocurrency systems and various blockchain protocols, architecture, and implementations. An all-around player and a technology geek with proven experience in management and hands-on development





# GEOFFREY PAYNE Blockchain & Technical Advisor

Geoffrey comes with nine years experience designing and building countless enterprises' NET applications. With a deep understanding of Solidity and smart contract development on the Ethereum blockchain, he is an essential advisor to our team. Geoffrey has a business view with a developer's expertise.



# EMMA ATKINS Business Development Consultant

Emma has over a decade of experience in business development with multinational companies in Europe. Emma assists with strategic planning, market analysis, sales approaches and commercial proposals.



## DEBORAH WHELAN Business & Technical Advisor

Expert in private decentralised social network that utilises cryptocurrency payments through its integrated marketplace and ad platform. Deborah. She is also a primary key holder for our company's multi-sig wallet.



# CATHERINE DAVIES HR Manager

Over six years experience in HR, including 3 years in online companies. Has a first and masters degree in Human Resources. Passionately believes that the workplace should be a pleasant environment for all employees.

