



# KARBUN

## WHITEPAPER

A trust-less protocol providing extra layers of security and privacy for decentralized platforms immutability, to ensure safe, fast and inexpensive transactions.

New Generation of Carbon Credit Trading and investment in Green Projects via Digital Ledger Accounting and Payment Solution for leading Global emission controls.





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# Disclaimer

KARBUN

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# **1. Business Overview**



*"Solving climate change would be the most amazing thing humanity has ever done"*

*Bill Gates*

## **Karbun Unique Proposition to the Decarbonisation Market**

- The first decentralized, efficient commodity trading & swap platform
- The first Layer 3 solution for Ethereum & Binance Smart Chain
- Dramatically increases transaction volume at a fraction of the cost
- Karbun automates carbon measurement for offsetting and removes the current lengthy and over-priced manual (tendering) process which absorbs much of the funds ideally designated to help tackle climate change
- Karbun democratises the future of carbon sequestration
- Karbun will fund and incubate future viable green projects
- First to partner with the UK Biodiversity Net Gain (BNG) program. Karbun is working in partnership with a UK bank and the UK government to establish the platform as the sole database and marketplace for BNG units
- Karbun's platform allows users to offset carbon emissions, invest in carbon sequestration projects globally, provides very high percentages for its liquidity pool share (0.35%) and provides high yield farming solutions
- For those of you who are technical, Karbun Protocol uses AI, Zero Knowledge consensus validation security and Quantum triangular entangled formula to provide safe and inexpensive transactions
  - AI, enhances data security & can comprehensively read, understand and correlate data at incredible speed, bringing a new level of intelligence to blockchain-based business networks. The Zero Knowledge protocol, provides additional security & privacy
  - Data Entanglement is an intrinsically quantum effect that involves correlations, usually for systems to carry out valuable tasks such as quantum key distribution (QKD), which guarantees secure communication through the laws of physics. (QKD is a secure communication method which implements a cryptographic protocol involving components of quantum mechanics)
  - Karbun will be facilitating applications built-up in such a way to solve the triangular issues (Decentralization, Scaling, Security and Privacy) for the new ETH2.0 and Binance Smart Chain

# Founders' Profile



**Mr. John Sajadi** is a highly distinguished IT specialist with more than 20 years of extensive expertise in the areas of Software Development, life-cycle delivery management, automation strategies for transportation and logistics and in the creation of diverse financial applications utilising Blockchain technologies. A highly-driven technologist with remarkable entrepreneurial spirit, Mr. Sajadi enjoys developing new technologies that can simplify the lives of everyone while significantly contributing towards the processes that help create wealth for every individual involved. Mr. John Sajadi has Masters & Doctorate level of education in Information Technology Leadership from renowned Deakin University and is the Founder of TICKTOC, iiRide Ride-sharing applications, the award-winning payment platform 2019-2021 TiCKPAY and is the Winner of Corp Global Business Leaders 2020. Mr. John Sajadi was the Vice-President of JZ Petroleum in California in 2014 and CEO of ZKLAB, ZKTube and PayTube, where he demonstrated his professionalism and execution abilities to raise significant capital within 12 months. He successfully helped to develop the ZKTube platform and execute its exchange launch which was well received by investors worldwide. He is now the driving force behind Karbun and is committed to transubstantiate the future of Payments for banking consortiums and crypto currency utilising block-chain technologies to create a win/win, immutable and trusted solutions for all parties involved.

**Mr. Nikesh Lalchandani** is a prestigious member of the Financial Services Institute of Australasia (FINSIA) and KARBUN Board of Directors. Nikesh has rich experience of over a decade in Commonwealth Bank of Australia as Head of Payments Architecture, Head of Payments Innovation and Emerging Technologies. He has been the instrumental force behind some of Australia's major Fintech advancements such as: Real-time payments, first of its kind cross-border bank to bank cryptocurrency and blockchain exchanges etc. He's a prime-Advisor to the Government and Industrial Sectors, including: Woolworths; new start up WPay and Australia's highest recognised IP - Blockchain startup Bloxian, where he's served as the Chief Strategy Officer. He also happens to be the President of Deakin University's Honour Society (GK) for high performing students and a senior member of the IEEE and IEEE Computer Society, Financial Markets (FINSIA), a Chartered Banker with the Chartered Bankers Institute (UK) and Fellow of the Financial Services Institute of Australasia (FINSIA).



Mr. Sajadi and Mr. Lalchandani are both strong advocates of equitable opportunity creation for sustainable economic growth with diverse adoption of Blockchain technology and capitalization of its advantages in line with the "Green Revolution" this world urgently needs

## **2. Karbun Platform**

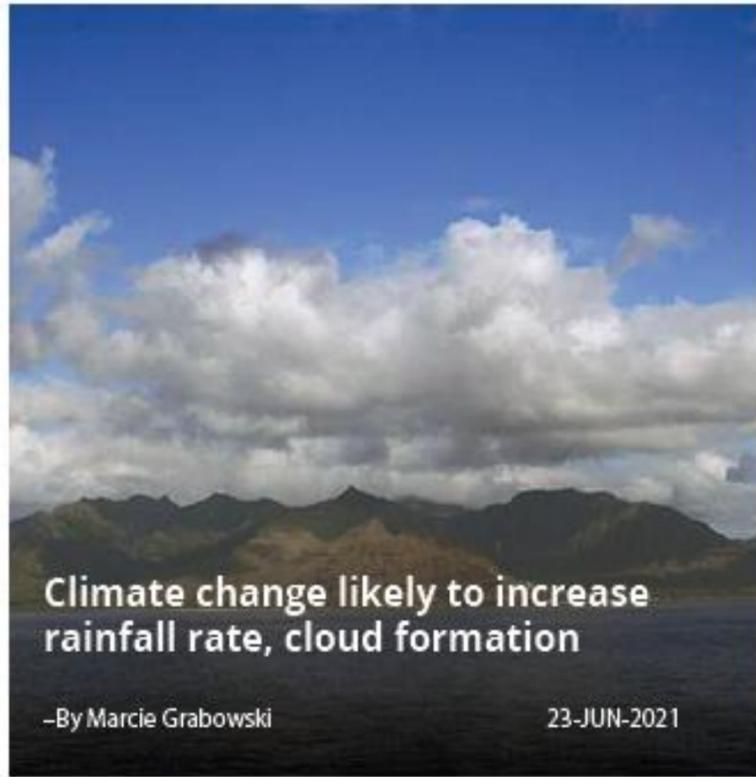


# Current Scenarios

**"Saving your Tomorrow, starting from Today"**

Climate change is a grim reality that can no longer be ignored. Even the sceptics are realizing the true extent of threat that climatic variations possess. The American Association for the Advancement of Science has stated that - "the scientific evidence (for climate change) is clear: global climate change caused by human activities is occurring now, and it is a growing threat to society." From raging wildfires across major Continents to gradual dwindling of Icecaps on the Poles to increasing menace of Natural Calamities, all of these can be attributed to surmounting levels of destructive human activities involving incessant burning of Fossils Fuel, Deforestation and unsustainable agro-farming practices etc. These collectively lead to increases in Green House emissions. Greenhouse gases trap the reflected heat in the atmosphere and redirect it back to Earth; ultimately contributing to Global Warming. Various gases play a pivotal part in this role, such as: Water vapor, Carbon dioxide (CO<sub>2</sub>), Methane, Nitrous oxide and Chlorofluorocarbons (CFCs) etc. CO<sub>2</sub> has become one of the biggest contributing factors towards Green-house-gas Emissions. (GHG)

GHG levels have been rising at an alarming rate, hitting 417 parts per million in May 2020. The last recorded time with the highest CO<sub>2</sub> level, exceeded 400 parts per million, was around Four Million years ago! Even the year-long staggering deadlock of the Global pandemic failed to curtail the fatalistic effects of raising concentrations of CO<sub>2</sub>. According to the World Meteorological Organization, Covid19 worldwide lockdowns had a negligible impact on the overall curve of rising CO<sub>2</sub> levels across the Globe. The effect of worldwide lockdowns on accelerative levels of CO<sub>2</sub> in the atmosphere was so miniscule that it registered as a "blip" compared to the annual fluctuations of the carbon cycle prior to the Pandemic period. Martin Siegert, Director of the Grantham Institute for Climate Change and the Environment (Imperial College London), says that "We put 100ppm of CO<sub>2</sub> in the atmosphere in the last 60 years; that is 100 times faster than previous natural increases, such as those that occurred towards the end of the last ice age more than 10,000 years ago. If we keep tracking the worst-case scenario, by the end of this century, levels of CO<sub>2</sub> will be 800ppm. We haven't had that for 55 million years!"



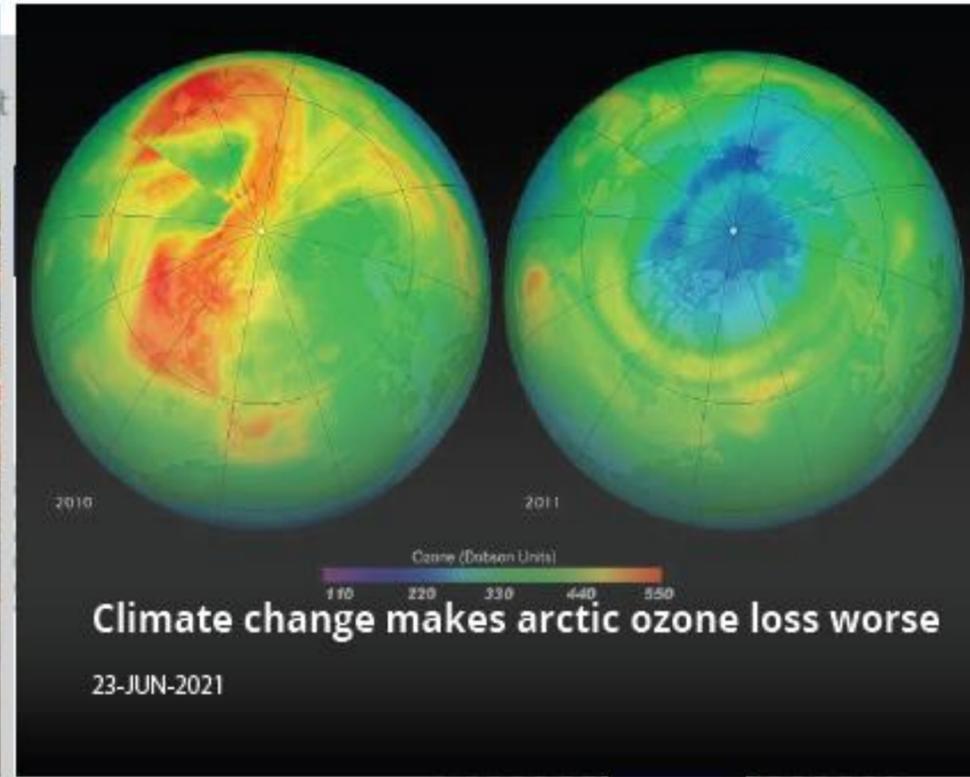
**Climate change likely to increase rainfall rate, cloud formation**

-By Marcie Grabowski 23-JUN-2021



**In 2020, more people displaced by extreme climate than conflict**

-By Laura Millan Lombrana | Bloomberg 25-MAY-2021



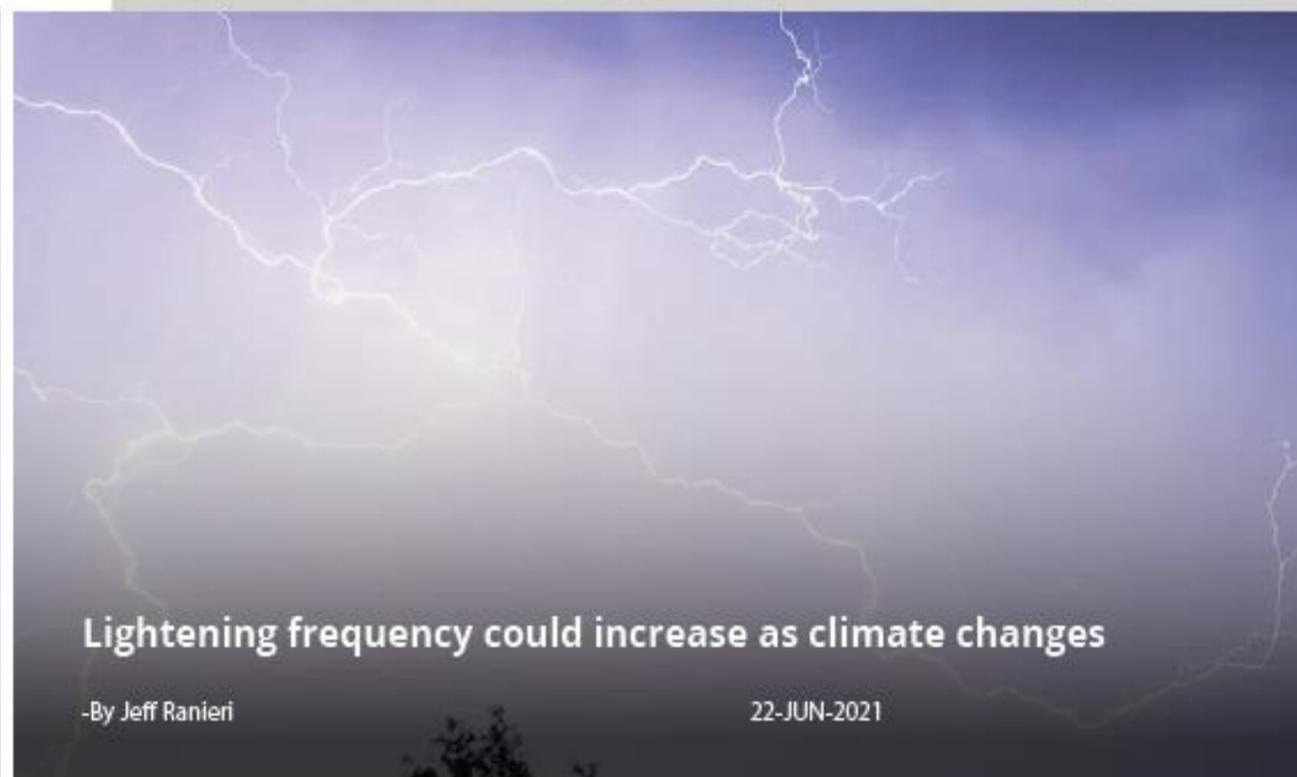
**Climate change makes arctic ozone loss worse**

23-JUN-2021



**Earth's atmosphere trapping 'unprecedented' amount of heat: NASA, NOAA report**

-By Julia Musto | Fox News 21-JUN-2021



**Lightening frequency could increase as climate changes**

-By Jeff Ranieri 22-JUN-2021



**Amazon Forest at extreme risk of drought due to climate change**

22-JUN-2021



All major economies of the World have banded together and put forth several proposals for tackling the Climate Change problem by way of controlling Greenhouse Emissions. One such initiative was the Kyoto Protocol passed by the United Nations' Intergovernmental Panel on Climate Change (IPCC) in 1997. The protocol set obligatory emission targets for countries that signed it to reduce worldwide carbon atmospheric discharge. It set forth a cap-and-trade incentivized market mechanism for Carbon by means of tradable permits or certificates known as 'Carbon Credits'. Companies receive a pre-determined number of Carbon Credits (which decline over time) from their government's or Regulatory Authorities that set a "Cap" on Greenhouse Gas Emissions. Companies purchase Carbon Credits to comply with the emission cap or face penalties upon violation of set limits.

Entities that achieve carbon offsets by reducing their emissions of greenhouse gases are rewarded with additional carbon credits. These entities can further use their surplus credits by trading it with entities who had insufficient allowances to cover their preset emissions via private and public markets. By commodifying Carbon and establishing an incentivized Emission Trading System, organizations are encouraged to select the most cost-efficient means of matching the permit requirements in order to meet the primary goal of reduced emissions. Alongside this, entities are encouraged to shift towards more environmentally viable options for limiting emissions and switching to zero-emission alternatives leading to a better atmospheric equilibrium, improved material efficiency, energy security and employment opportunities.



**Though well-intended, current day emission tracking and controlling systems have significant misapprehensions that prevent their large-scale application.**

# Targeted Challenges



While Blockchain has range of verifiable aptitudes to skyrocket Global unification of Carbon-ol1set Trading Markets to support emancipation of greenhouse emissions and pragmatize the worldwide Climate Control measures, there are still some operational chasms that need to be bridged before large-scale sustainability is achieved. One of the major setbacks for mass implementation of Blockchain is its heavy requirement for computing power and energy resources. The current Blockchain architecture demands disproportionately high energy consumption which must be addressed. As pan-global participants are linked to the growing platform, increasing amount of power consumption and bandwidth are exacted.

Currently, we collectively emit approximately 51 billion tons of Carbon dioxide every year. This is 40% higher than the emissions in 1990, which amounted to around 30.6 billion tons. Carbon dioxide is the largest contributor of Global Greenhouse Emissions, accounting for around three-quarters (74.4%) of total emissions, leading to drastic changes in World Climate and creating serious concerns of Global Warming. Asia is by far the largest emitter of Carbon Dioxide, accounting for almost 53% of global CO2 emissions; with China topping the annual emission charts at 10.06 billion metric tons in 2019. North America follows closely behind emitting at 18% of total global emissions, dominated largely by USA at 5.41 billion metric tons of carbon dioxide emissions yearly. In large part, these intense CO2 Emissions from respective nations are the result of energy requirements to fuel countries' urbanization and industrialization goals of facilitating substance for industrial plants, boilers, electricity generation, transportation and allied turn-key infrastructure creations.

To add to the growing liability of Global Energy demands, in a recent report published by Galaxy Digital, further confirmed by the International Energy Agency (IEA), the annual energy consumption of the most famous Decentralized Digital Blockchain network, Bitcoin, measured to be circa 113.89 TWH (Terawatts per Hour) per year, is a stark contrast compared to Google's entire energy usage of 12.2 TWH! Long since the end of last decade, the annual energy consumption of Bitcoin has risen to 149.6 TWH, a rising indicator of the networks increasing tral1c and popularity.

Ethereum is a close second to the most popular Blockchain network. Ethereum facilitates thousands of decentralized assets (coins/tokens) on their platform 24X7x365 without a break; which demands high-energy sources in order to sustain their network operations, and their user counts are growing significantly each day. According to Digiconomist, "Bitcoin alone may use more energy than all data centers" that serve current civilizations worldwide. Some assume that it will eventually expropriate entire energy grids for its operations. There are 9267 coins launched and trading today. If we were to count the energy usages of them all, the combined figure for energy consumption will be beyond our imagination.

One of the major contributors of current Blockchains' energy consumption is the mining process. New transactions are added onto the records of Blockchain ledgers through mining. This process of mining on any Blockchain Network is performed by a community of people around the world, which are called 'Blockchain Miners.' Anyone can apply to become a Blockchain Miner. These Blockchain Miners install and run special blockchain mining software that enables their computers to communicate securely with one another. Once the software is installed, you can join the network and begin mining, the member becomes what is called a node. Together, all these nodes communicate with one another and process transactions to add new blocks to the blockchain network. The process of adding blocks to the blockchain is how transactions are processed and how money moves around securely within the systems.



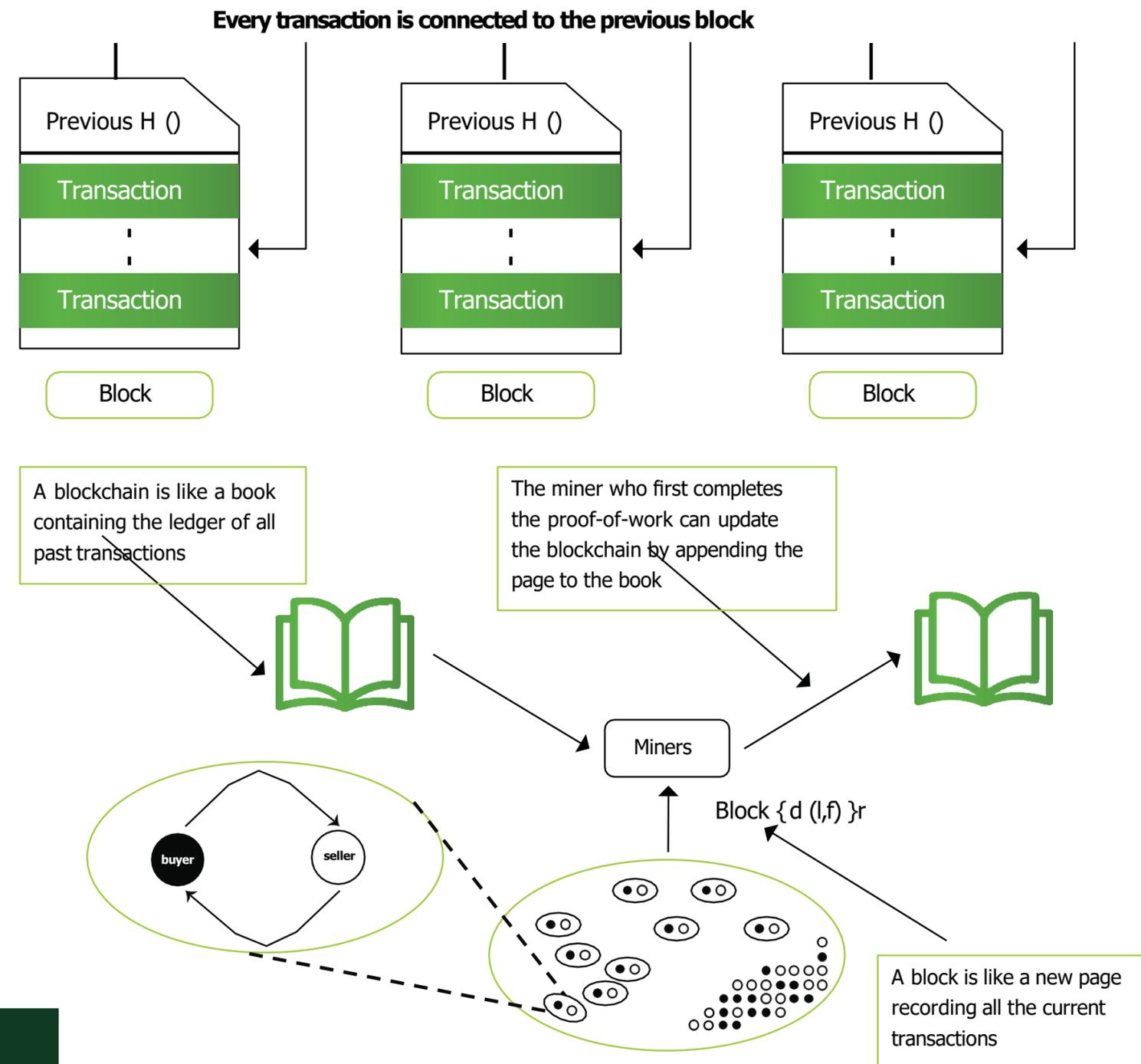
# Consensus



There is another Algorithmic factor used for the consensus validation process behind the mining process which is called: Proof of Work (PoW). The biggest challenge of this security protocol (PoW) is high energy consumption. Proof of Work networks, according to credible sources, can leave a carbon footprint similar to driving a gas-powered sedan one-thousand kilometers. This is due to the extensive mining process which is currently the preferred method employed by most blockchain network participants.

Shared below are some of the most famous Blockchain platforms. While being efficient in streamlining large-scale Emission Control measures and supporting diminution endeavours for Global Carbon concentration, these platforms might not be very sustainable in the long run given the exhaustive extent of their energy consumption.

- Bitcoin
- Ethereum
- POA Blockchain



# Karbun's Preferred Solution

In order to combat the challenges of current Blockchain Architectures and looming Environmental threats, Mr. Sajadi and Mr. Lalchandani have created a Pan-Global-Solution to unify all worldwide Carbon Control measures onto a SINGLE Platform via: "Karbun".

Karbun is a new-age panoptic Distributed Ledger Climate Accounting and Payment Platform that unifies all Environmental stakeholders including Governments, Energy Trading platforms, Corporates, Investors and Citizens for a consolidated approach towards tackling Climate Control endeavours with a special focus on Carbon exchange unification for achieving worldwide Carbon neutrality.



Parties contributing to Greenhouse gas emissions have been directed to go Carbon-neutral but there has been no set blueprint for guiding them and providing them with a formative game-plan on how to contribute effectively towards "Green-endeavours" without levied third-party costs for usance of latest technologies in order to decentralize the value of carbon requisition for its establishment as a new financial derivative.

Karbun' easy-to-integrate, distributed climate accounting and payment protocol, applies blockchain technology allied with data analytic measurements for making transactions transparent and reliable while calculating the amount of emissions and emission rights possessed by different enterprises. This facilitates clear tracking of greenhouse emissions by entities and prompt clearance and settlement of carbon credit transactions; with easily available corresponding exchanges or best-in-class carbon tenement/similar holders of green project initiatives to strengthen worldwide Carbon markets.



**Mr. Sajadi & Mr. Lalchandani firmly believe that the time for "dialogue" is long-past. Citizens of Earth are living on borrowed time and we are at an overdue-point for ACTION NOW**

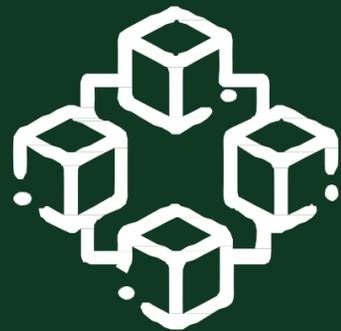


## Blockchain as a Solution

Blockchain has emerged as an opulent asset in targeting the fallacies of emission tracking and controlling frameworks, ensuring stricter adherence to Carbon neutral endeavours in order to fulfill the net goal of achieving global carbon negative outcomes. Blockchain has been exalted to resolve the issues associated with development of Carbon Markets by way of decentralized-scalable solutions that promptly support new carbon markets via adjoining nodes that can be introduced into the network with ease.

This will overcome the limitations of geographical coverage associated with global implementations of Emission Control Protocols. Another heralded benefit Blockchain has been presaged to extend, is via the streamlining of all carbon pricing initiatives worldwide in a single cohesive unit for better accounting, auditing and monitoring of emissions between entities in disconnected carbon trading initiatives across globe. This interlinking of multiple carbon initiatives, on a single cohesive platform, will facilitate enhanced market liquidity and size.

Economically speaking, having a united, automated and decentralized system embedded with immutable, tamperproof and smart contracts can reduce fixed costs and risk of corruption, especially once spread across a large common network. This helps to reduce barriers to entry, allowing coverage to be extended to smaller enterprises and lesser-developed regions backed by enhanced transparency. The pseudonymity of Blockchain also allows transaction data to be readily available in inclusive detail without compromising privacy or confidentiality of the trading parties.

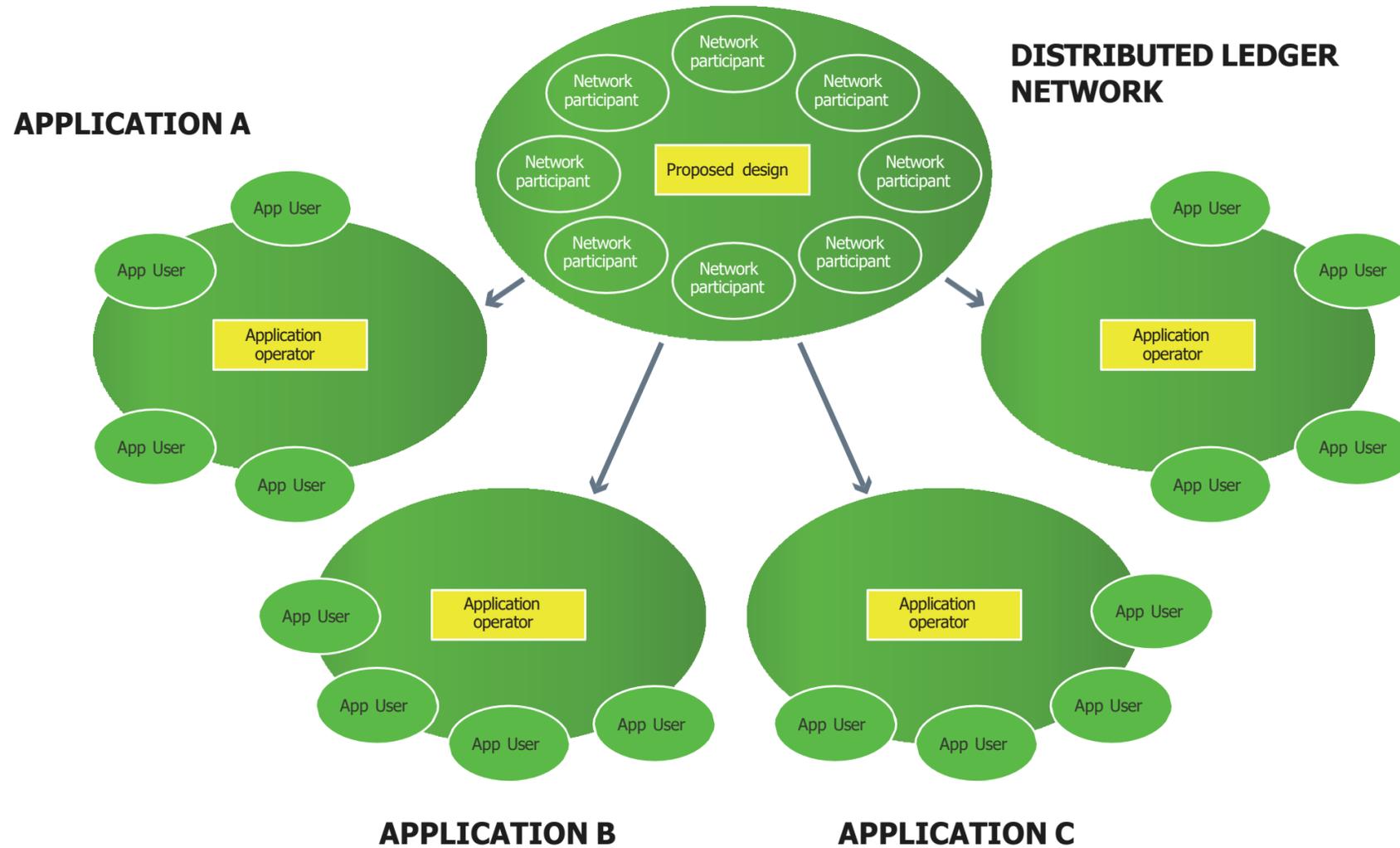


# Karbun's Preferred Solution



Karbun's digital ecosystem records all kinds of asset transactions in an immutable format. However, unlike traditional databases, the transactions and their details are recorded in multiple places simultaneously, meaning that distributed ledgers have no central data store or administration functionality.

The main principle of operation of a distributed ledger is usually to process, validate and authenticate transactions or other types of data exchanges. Once consensus is achieved, each record is time-stamped, signed by a cryptographic signature and stored in the ledger. Due to the consensus process for security validation being a major contributing factor to inefficient-energy usage in current trending Blockchain platforms, Karbun's has offered to establish the next-generation of Blockchain architecture by overcoming the conventional consensus drawbacks with first of a kind peer-to-peer consensus orientation that only involves parties to the transaction for validation, as opposed to the entire network.



This shared ledger of Carbon 's transactions removes the need for involvement of all parties on the network to constantly check if each record is in alignment after repeated interactions with one another.

This empowers the Parties on the Platform to avoid requisition of the whole blockchain history in order to function, ultimately allowing user liberation to fully operate the entrusted nodes on devices, cutting down processing power and storage while offering better scaling options in terms of payments, especially involving real-time streaming of large content or processing of many transactions. This design facilitates swift exchange of funds between greenhouse-gas emitters and carbon tenement holders existing on the Karbun's Platform. We have covered further details of Platform operations in coming sections for clearer illumination of Karbun's functionalities.

# 3. Karbun Biosphere



# Karbun Biosphere

Karbun at its core extends a globally streamlined, easy to adapt and decentralized platform for securing liquidity throughout the Greenhouse Gas Emissions Market and allowing designated enterprises to use pre-set emission volumes in diverse ways. Karbun also aids in facilitation of Emission Rights exchange by submitting offsets or emission balances in conformity with their targeted Carbon emissions in order to strengthen international Carbon reduction initiatives.



# Karbun Protocol - Outcomes



Karbun Protocol is a co-operative based and public entity owned and governed by all Karbun (KBC) holders. Designed with simplicity, speed, affordability and security in mind, Karbun allows users to diversify their market and earn.

The proceeds of KBC, Karbun's token, will fund the plantation of new forests 🌳 internationally; Partnering with the likes of New Forests Australia to purchase land and plant trees for Karbun's business means KBC holders' will receive their own carbon offset certification yearly and funds will grow Karbun's business and the token value.

Karbun will become of the worlds leading forestry solutions, combining carbon sequestration measurement, absorption and offsetting solutions and bringing both parties in our marketplace together to trade and offset.

Our solution is transparent due to the inherent nature of blockchain technology and will remove the lengthy tendering process and manual solutions to enable carbon farming as a viable business



## Karbu Protocol – the Tech

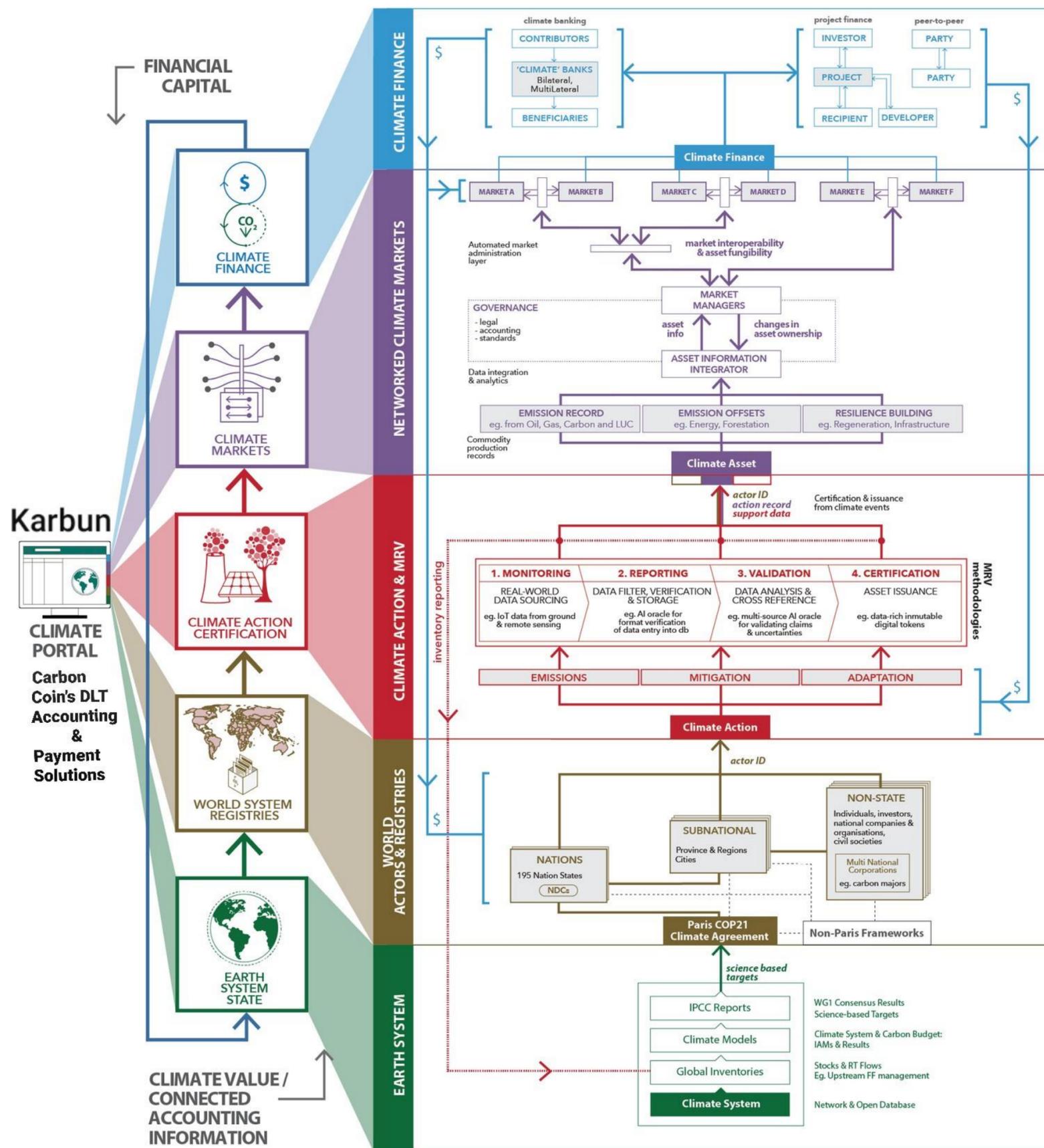
Karbu protocol uses AI, Zero Knowledge consensus validation security and Quantum triangular entangled formula to provide safe, fast and inexpensive transactions.

- AI, enhances data security and can comprehensively read, understand and correlate data at incredible speed, bringing a new level of intelligence to blockchain-based business networks.
- Zero Knowledge protocol provides extra security & privacy.
- Quantum Entanglement formula is an intrinsically quantum effect that involves correlations, usually for systems to carry out valuable tasks such as quantum key distribution (QKD), which guarantees secure communication through the laws of physics.
- QKD is a secure communication method which implements a cryptographic protocol involving components of quantum mechanics.

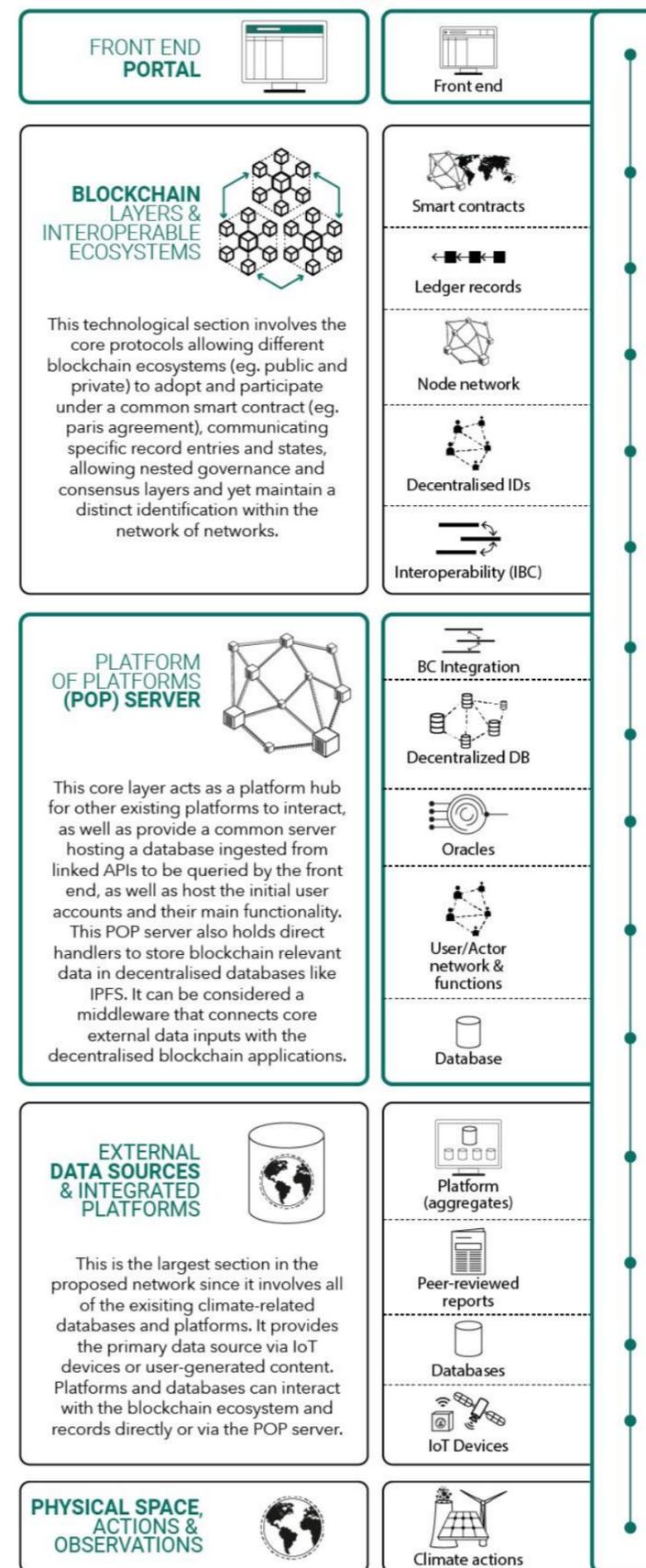
Karbu solves the 'triangular dilemma' of Blockchain, which is to enable balance between decentralization, scaling, security and privacy for the new ETH2.0 and Binance Smart Chain.



**YIELD  
FARMING**



**PLATFORM STACK LAYOUT & CORE FUNCTIONALITY**

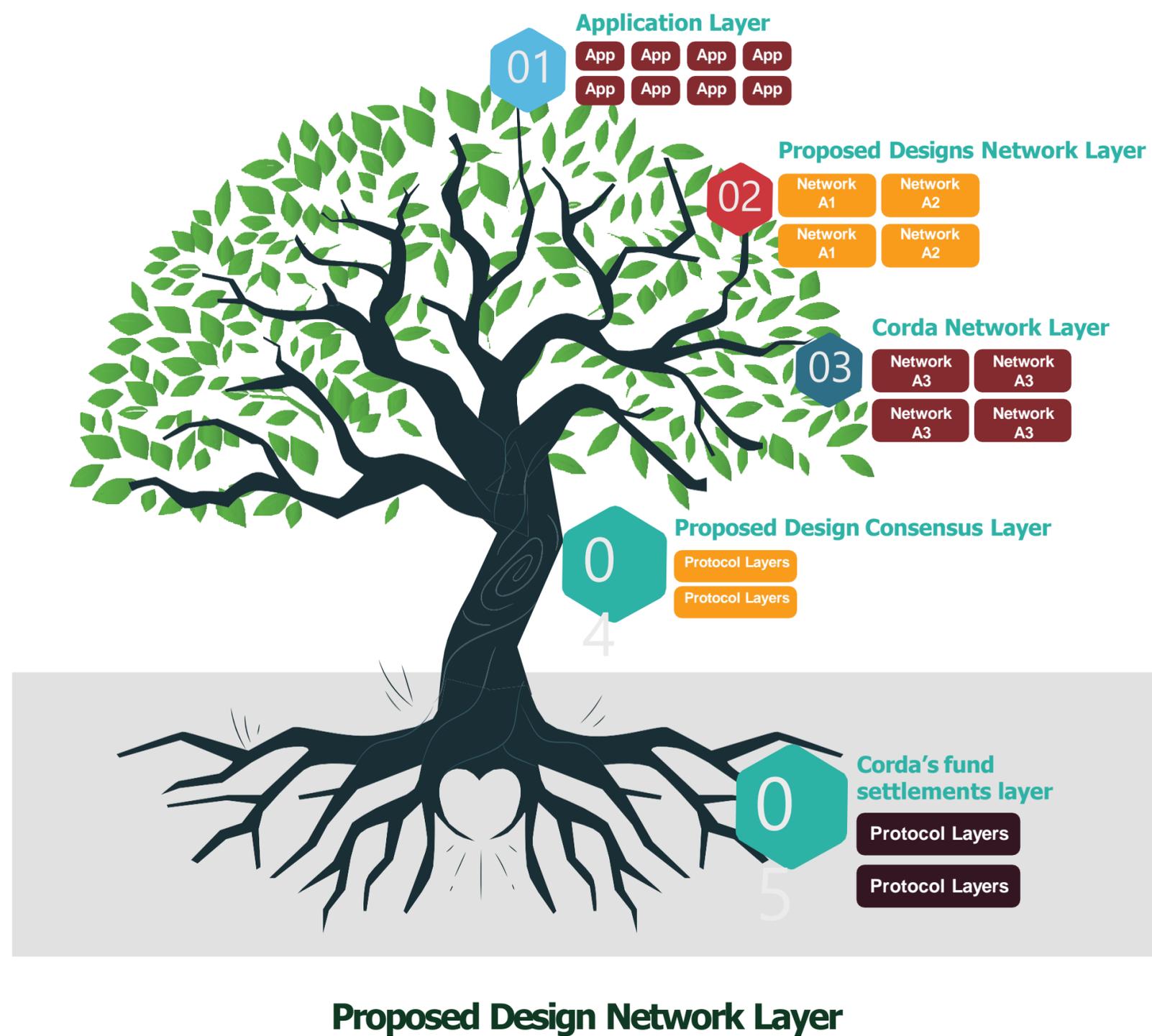




Karbun is designed using the revolutionary R3 Corda architecture that enables entities to transact directly without increased cost of third-party applications and the transactions are conducted in the strictest level of privacy using smart contracts, resulting in reduced transaction and record-keeping costs and the promotion of simplified business operations.

Karbun's Distributed Climate Accounting and Payment Solution involves an Application Layer which entails a well-established network for platform access from a range of different devices. The Network Layer of the platform comprises the cloud environment via Microsoft Azure and Oracle services for real-data collection and verification, which together acts as a hub for other platforms to interact, using the consensus API call with the application layer to verify a transaction and turn a distrusted node to trusted node.

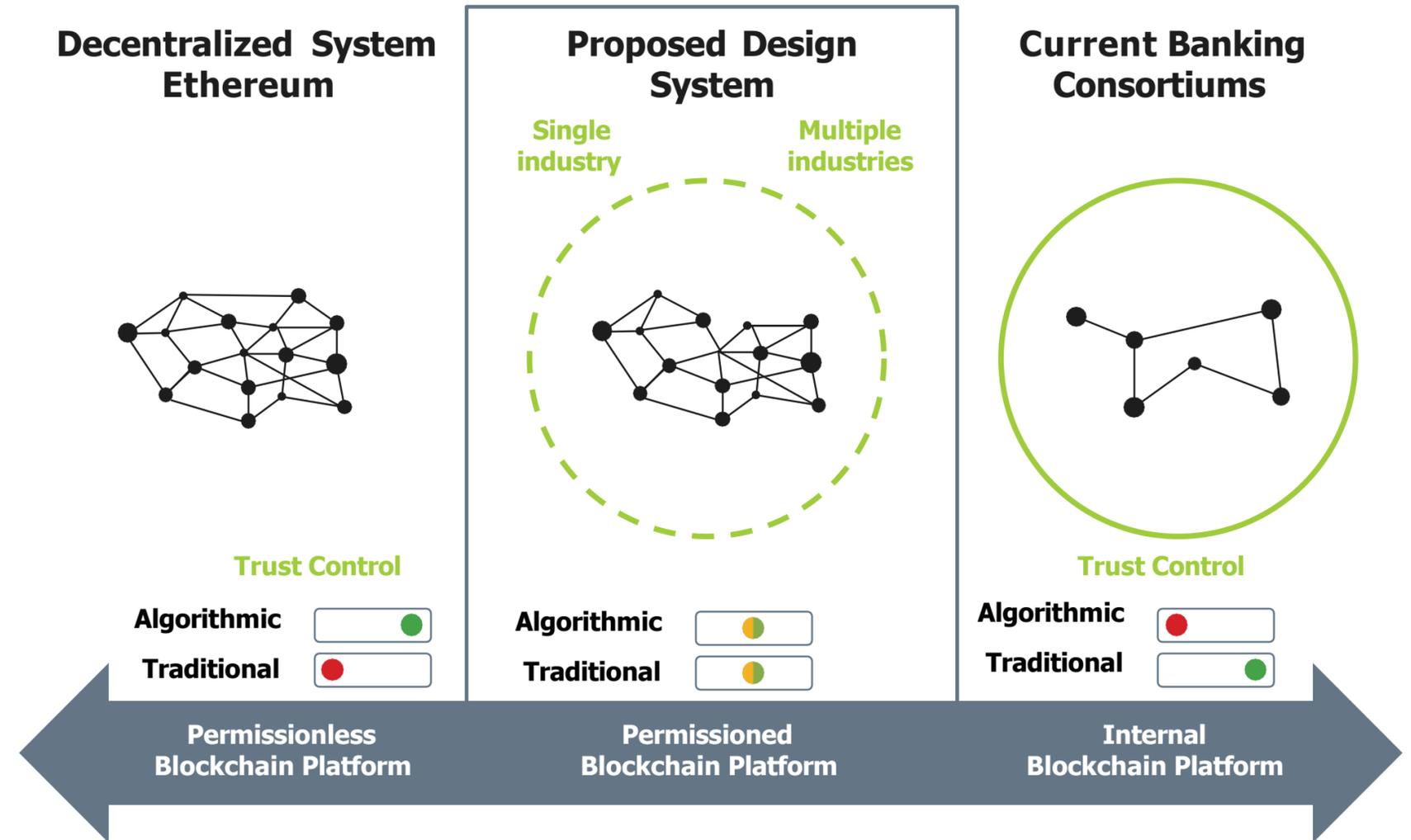
This is followed by the R3 Corda blockchain network layer with our proposed modifications: choosing the appropriate consensus protocol to allow different platforms i.e., financial and decentralized systems to operate under the same platform using smart-contracts i.e., Kyoto or more recent Paris Convention for global warming, banking consortiums to transact with Ethereum, maintaining a distinct identification within the network and by communication with specific ledgers to transact by only inviting interested participants or selected nodes. The core final layer involves Corda's Fund Settlement Process that integrates data verification and validation for international centralized and decentralized systems.



The proposed application and network layers will review all climate related databases and interact with all Internet Of Things (IOT) and satellites in order to support the processes of validating the greenhouse gas emitters and recommend the best project (localized separately for each country) and assist their interaction with stock markets and coin markets.

In addition to the above, Karbun architectural selection is diligently executed in a manner that combats the fallacies posed by current day Blockchain network such as: Bitcoin or Ethereum. The Bitcoin network consumes circa 75% of Blockchain network power currently and its energy demands continue to increase. To illustrate, one Bitcoin transaction is said to have the same energy footprint as 80,000 Visa transactions. Ethereum also contributes to periodic energy exhaustion of 32.38TWH for facilitating trade of 1000's of digital-assets or coins.

These have been tagged as the "unintended consequences of digital trends".





Karbun strives to overcome such grievous exploitation of energy sources by incorporating Corda’s input and output transactions processing that allows several inputs to run in parallel which increases the number of transactions per second. And, unlike Ethereum and Bitcoin, the data, as a result of a transaction, is not just a key-value pair, but rather, a state - which represents on-ledger facts at a specific point in time. As a result, the Corda database can contain arbitrary data and not just a value field. In addition, Corda unlike current-day Blockchain networks, isn't restricted to a particular consensus algorithm, rather, it employs different algorithms depending upon different scenarios.

This allows Karbun’s biosphere, backed by R3 Corda architecture, to facilitate multi-layered Market Settlement, leading to reduced party risks and the fostering of trust amongst counterparties. Since transaction history is shared on a need-to-know basis, this feature helps to improve traceability of carbon credits and assets, digitized immutable record-keeping for avoidance of contractual disputes and verified identification of Carbon tenants, keeping in line with sanctioned governance and permit compliances.

Ethereum clears a transaction in 7-10 minutes but with Karbun- it would be instant . Karbun would work at 9000 TPS and would clear 324,000,000 transactions the time ETH and BTC clears a single transaction.

Karbun coin is committed to create a technology to increase the volume of transactions at a lower cost. Karbun network is introducing a shared ledger for processing the bank transactions. The aim is to decrease the electricity consumption and thereby the resultant carbon emission. Karbun coin is working on Ethereum's second layer in order to reduce energy consumption. It will process the transactions as NFT and thereby will be able to process the tokens by serial number rather than the value of the currency. This will reduce the processing time of transactions and consequently the energy consumption and carbon emissions by way of diminishing computational processing.

Blockchain	Transaction per second	Validation timeline	TPS Clearance	Energy usage
Bitcoin	5	7-10 minutes	3000 in 7 hrs	149 TWH
Ethereum	7	7-10 minutes	4200 in 7 hrs	38 TWH
Karbun on layer 2	600-9000	Instantly	324M in 10 minutes	< 2 TWH
Karbun on layer 3 (exchange wallet)	120000-1800000	Instantly	6.4B in 10 minutes	< 5 TWH

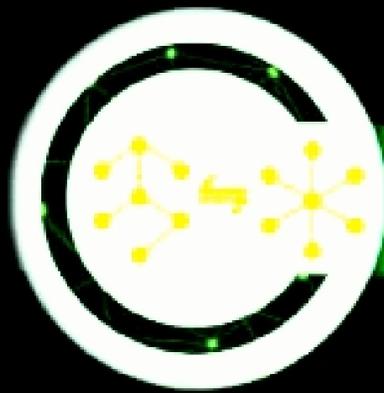
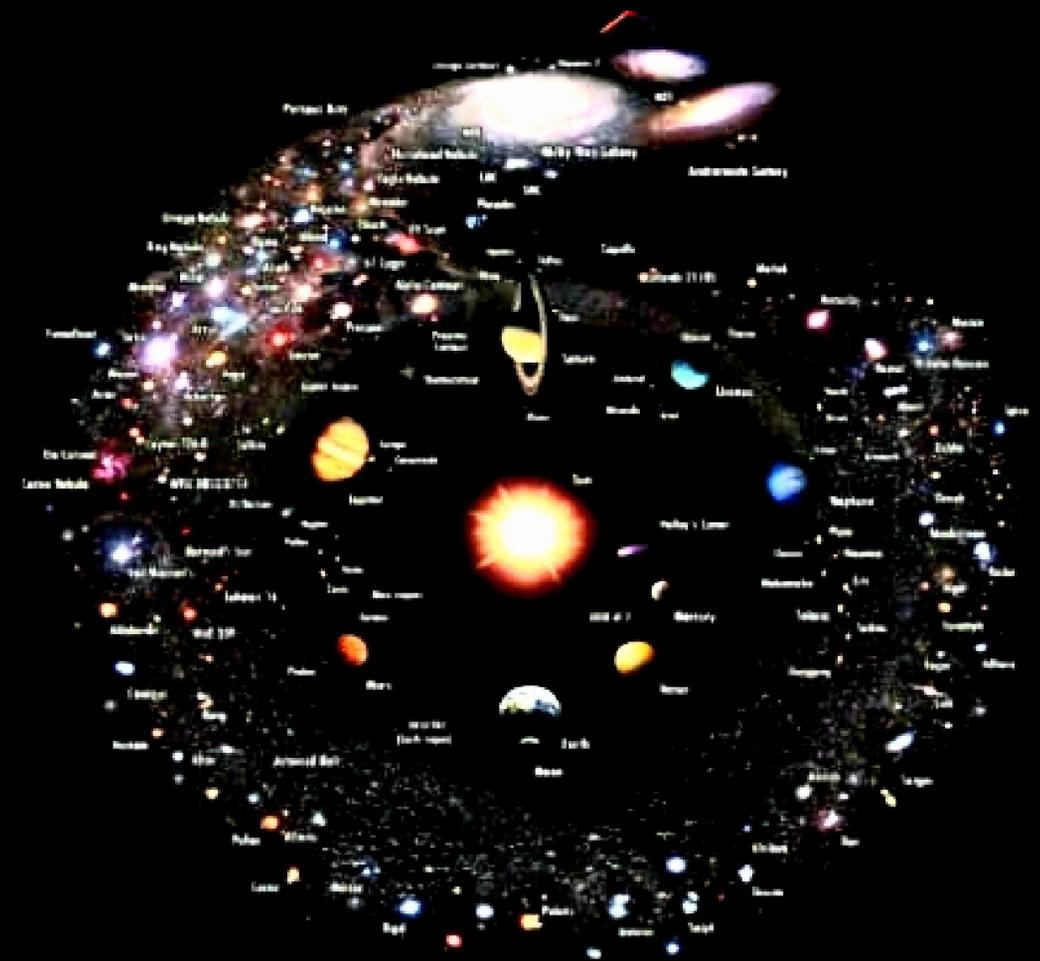
# 4. Technical Architecture



# Karbun Platform

KARBUN PROTOCOL ADDS EXTRA LAYERS OF PRIVACY & SECURITY USING QUANTUM TRAIINGLER ENTANGLED & ZERO-KNOWLEDGE which, will turn Blockchains **GREEN, SAFE & ACCOUNTABLE**

- AI, provides faster transaction throughputs by mirroring smart contracts
- Reduces greenhouse gas emissions. Provides extra privacy & security

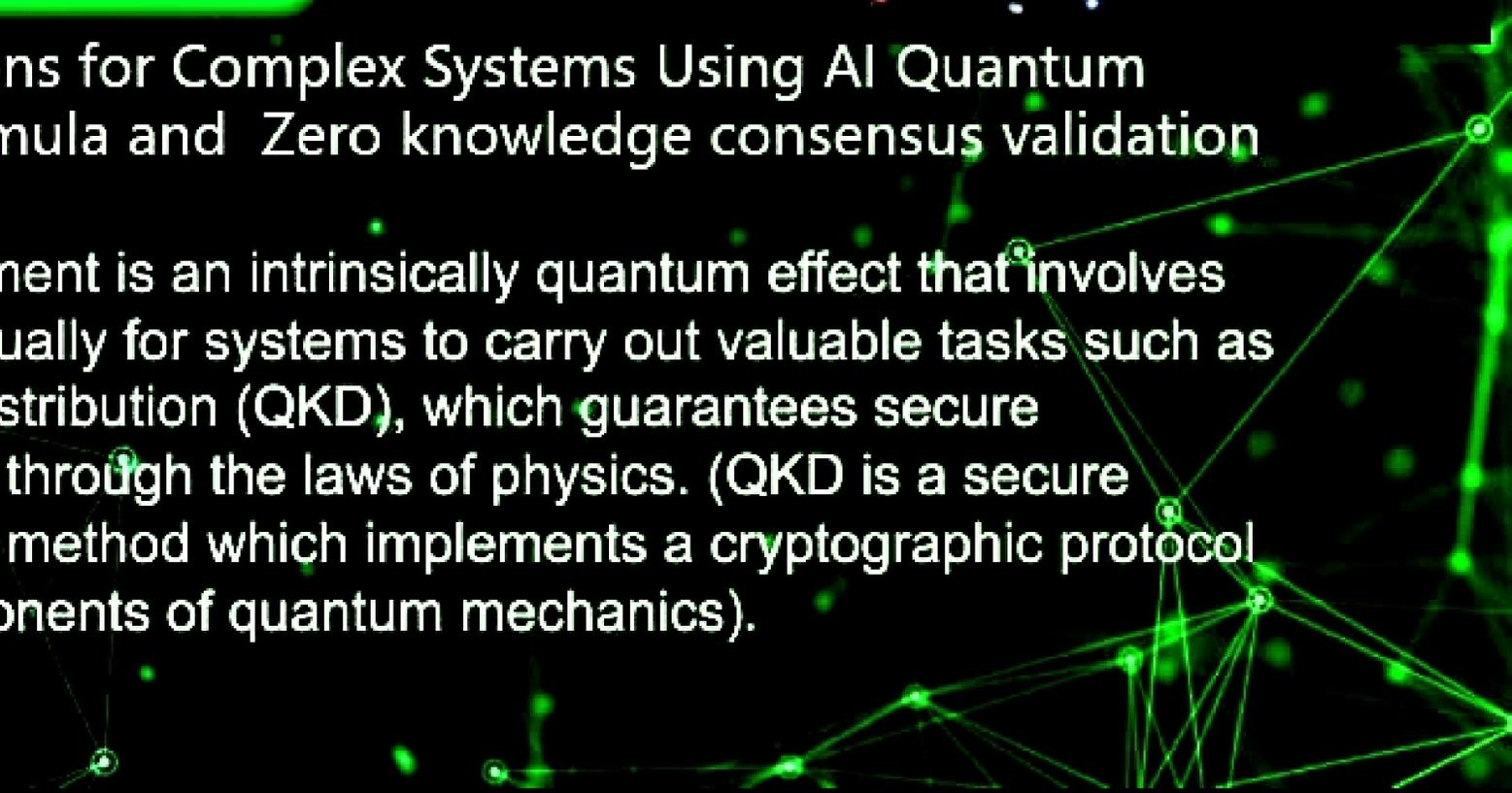


## Karbun Protocol

- Simple Solutions for Complex Systems Using AI Quantum entangled formula and Zero knowledge consensus validation process.
- Data Entanglement is an intrinsically quantum effect that involves correlations, usually for systems to carry out valuable tasks such as quantum key distribution (QKD), which guarantees secure communication through the laws of physics. (QKD is a secure communication method which implements a cryptographic protocol involving components of quantum mechanics).



Karbun.io



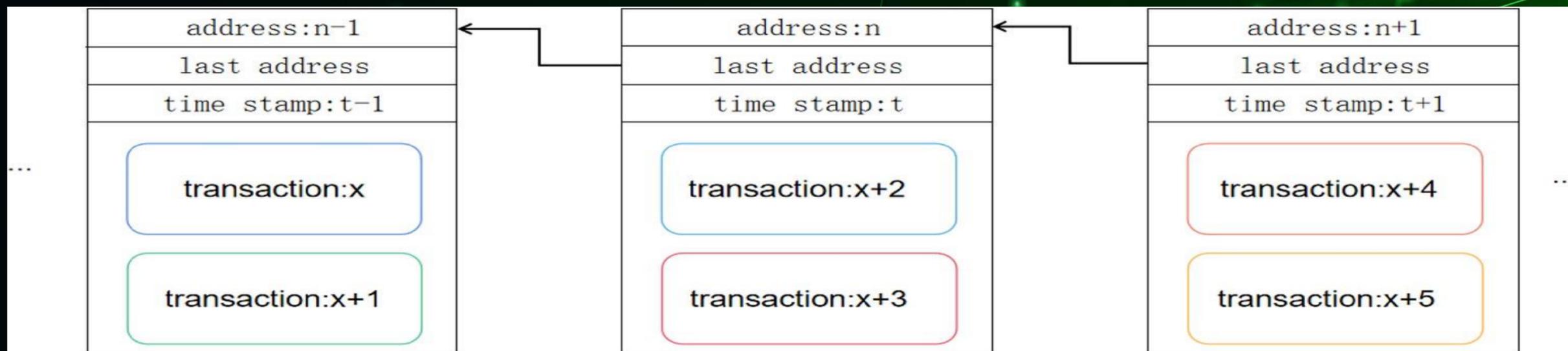


# KARBUN PROTOCOL

Ethereum is the most prominent blockchain distributed application (DApp) platform in the world. The number of active DApps are approximately 10,000+ with 6,000+ DApps under development and waiting to launch. At Karbun, we simplified the development process and time by 95% and created an AI Quantum triangular entangled formula to facilitate the integration of 10,000+ DAPPs to communicate with each other faster, cheaper and using Zero Knowledge consensus security validation mechanism to add 2 extra layers of security.

## Karbun blockchain Data Structure:

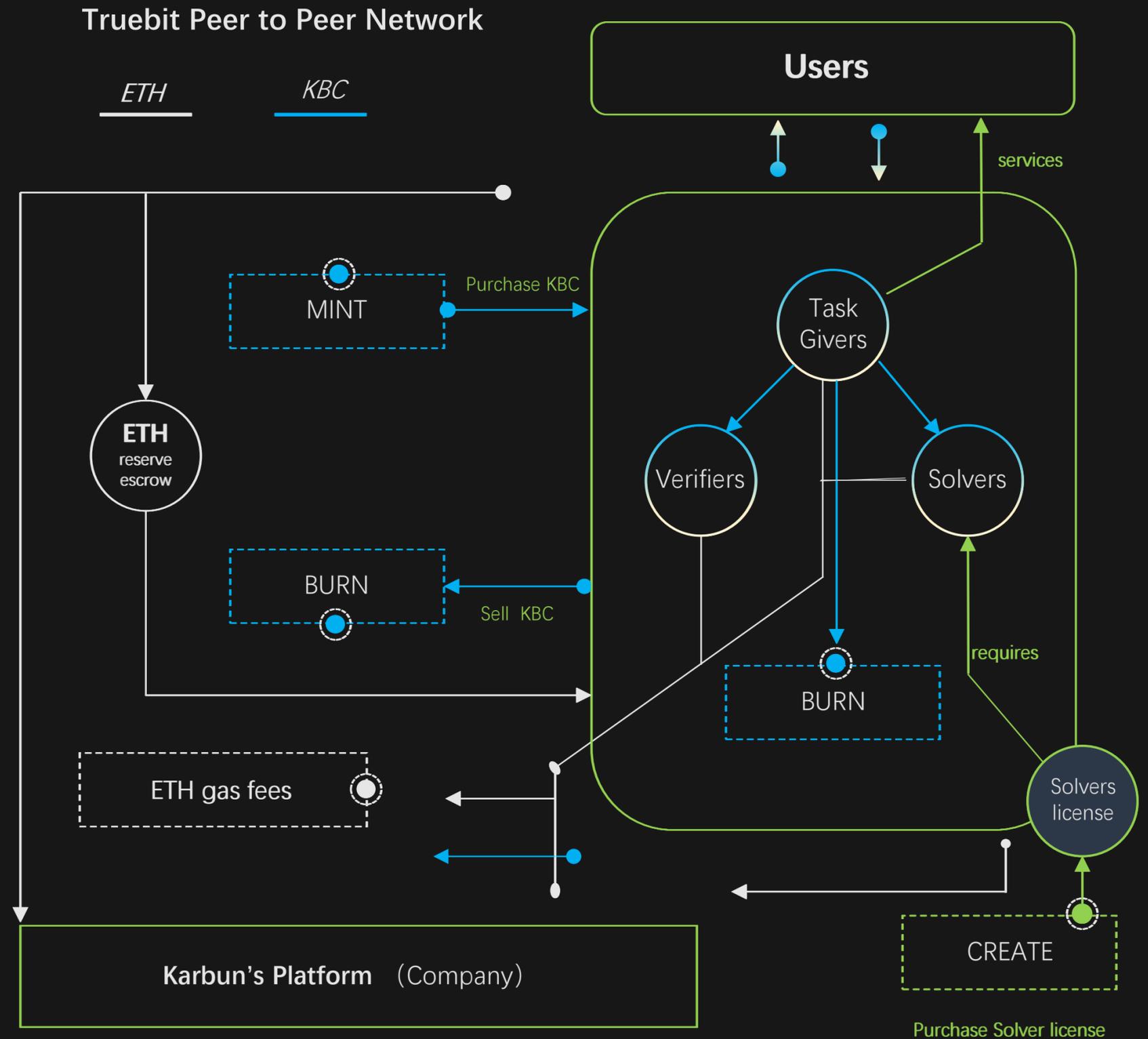
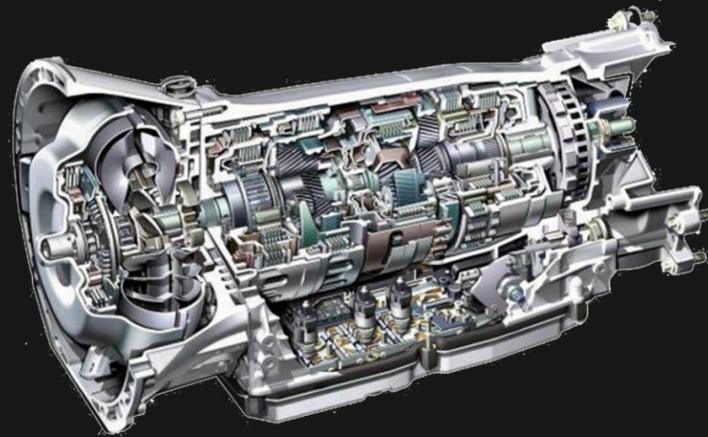
The block header contains the address of the current block, the address of the previous block and the timestamp. The block body contains the transaction that has passed through the quantum signature verification process. The arrows between two blocks indicate that we can find one block according to its next block by mirroring them to each other without having the custody of their funds and data.





# Karbun Protocol

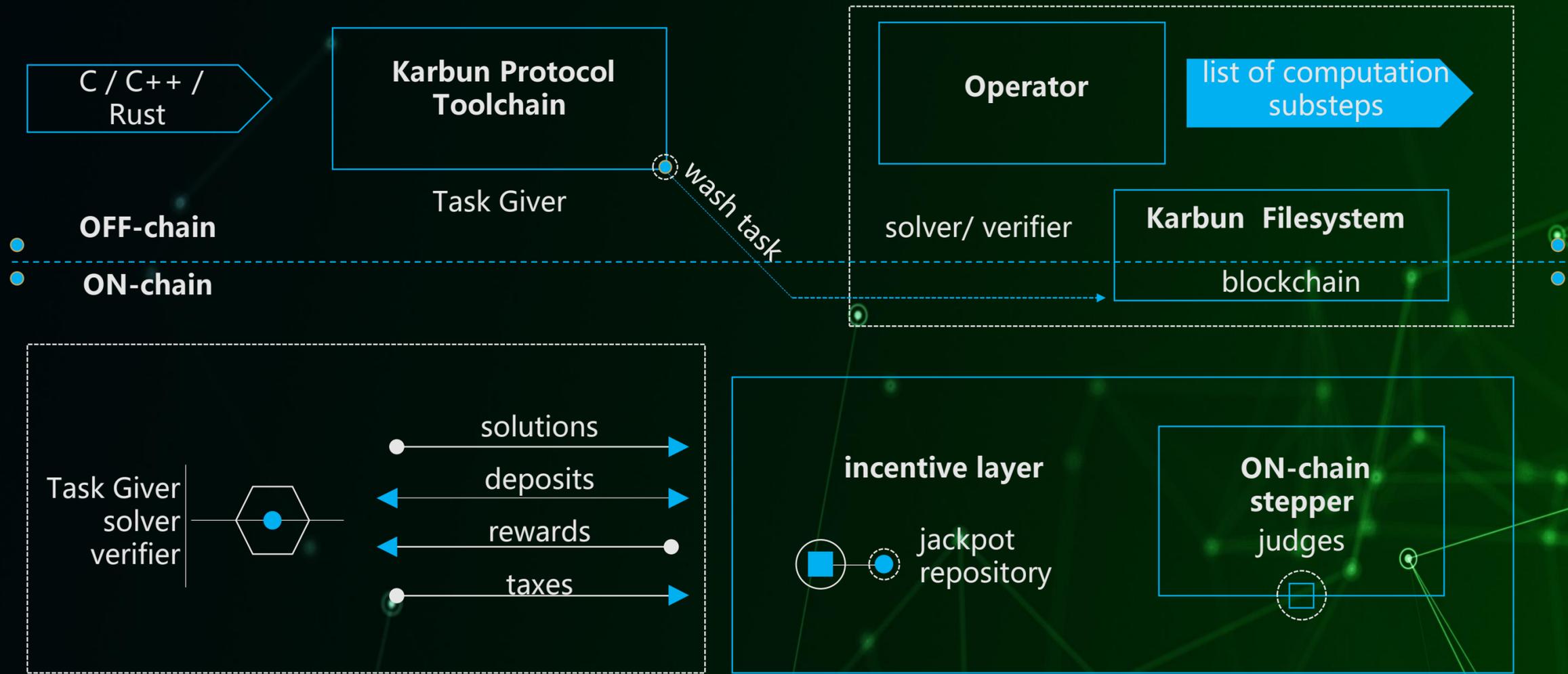
## Token Operation Model





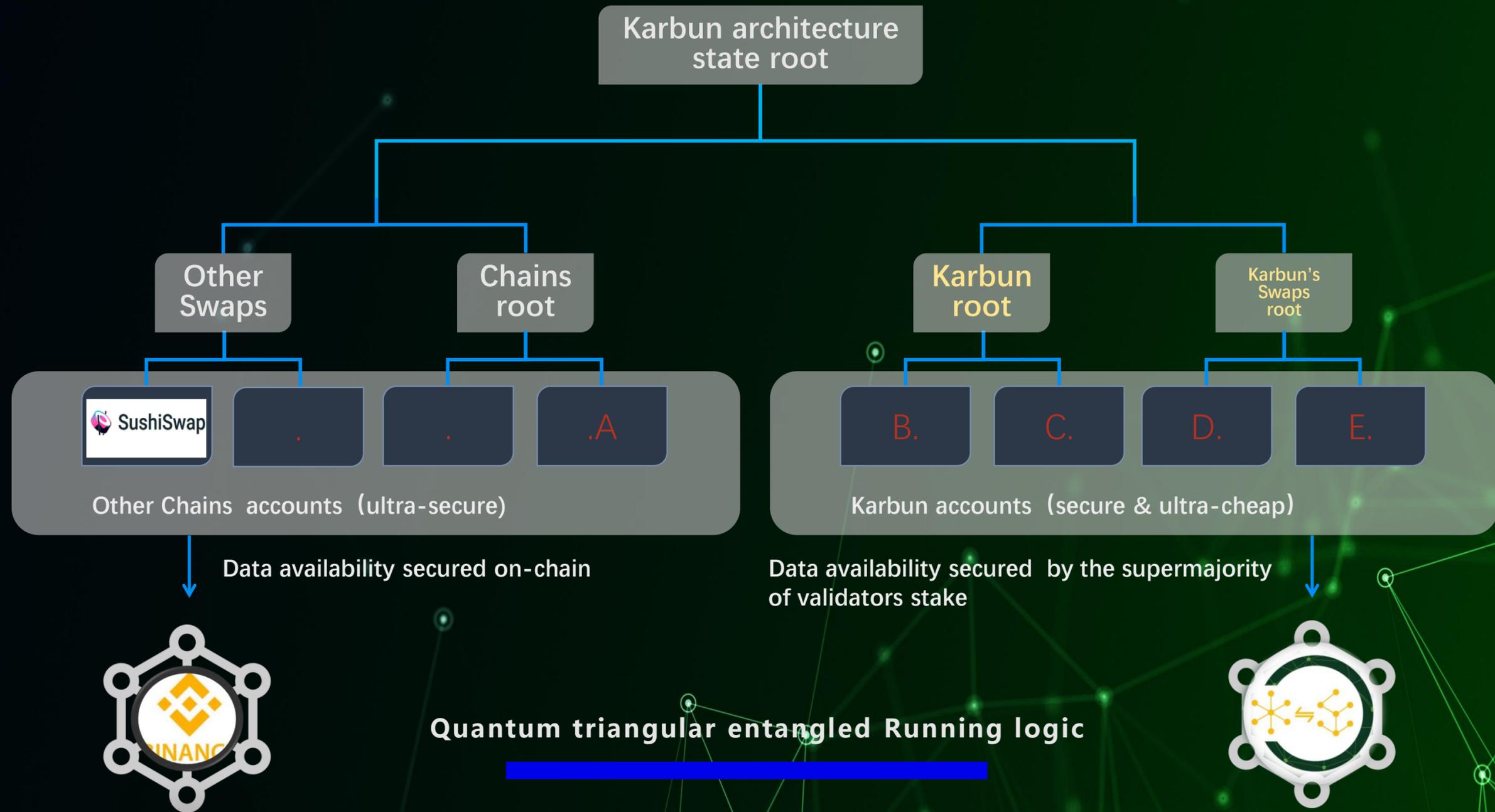
# Operational Logic Diagram

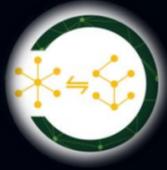
Karbun Protocol-OS





# Architecture





# Security and Privacy

Based on the Karbun architecture, we strictly inherit the Ethereum mainnet-level security performance plus 2 extra layers with Quantum triangular entangled protocol and Zero Knowledge consensus security validation.

Karbun validators will never destroy the state of transactions, unlike other side-chains

Even if the validator stops cooperating because the data is available, users can always avoid the transmission in process withdraw funds from

**Different from Plasma**



Proof of validity, neither users nor single other trusted parties need to be online to monitor blocks to prevent fraud. This process is automated on Karbun.

**Different from payment channels or other blockchain platforms**



# Managing Risk

Karbun will verify different protocols to avoid single points of risk

Prevent an organization, or a joint organization, from manipulating Karbun Protocols behavior

Karbun will build and provide professional Hard wallet machines Software in the future.

## PROVER Decentralized design

The main function of Prover is to generate Zero-Knowledge proof data, and the user's asset data signature is managed by the user's own wallet (such as **MetaMask**). The contract and service of the Karbun Protocol are responsible for the forwarding and storage of data, which will not affect the user's assets.



# Optimisation



based on Quantum triangular entangled algorithm

1. Use the permutation check
2. Method to prove the consistency
3. Between the circuit gates

## SRS Common

#1

Committed to sharing one SRS for multiple scenarios to shorten the proof time

## Memory compression

#2

Reduce the submission and proof of unnecessary or duplicate bytes

## Monitoring mechanism

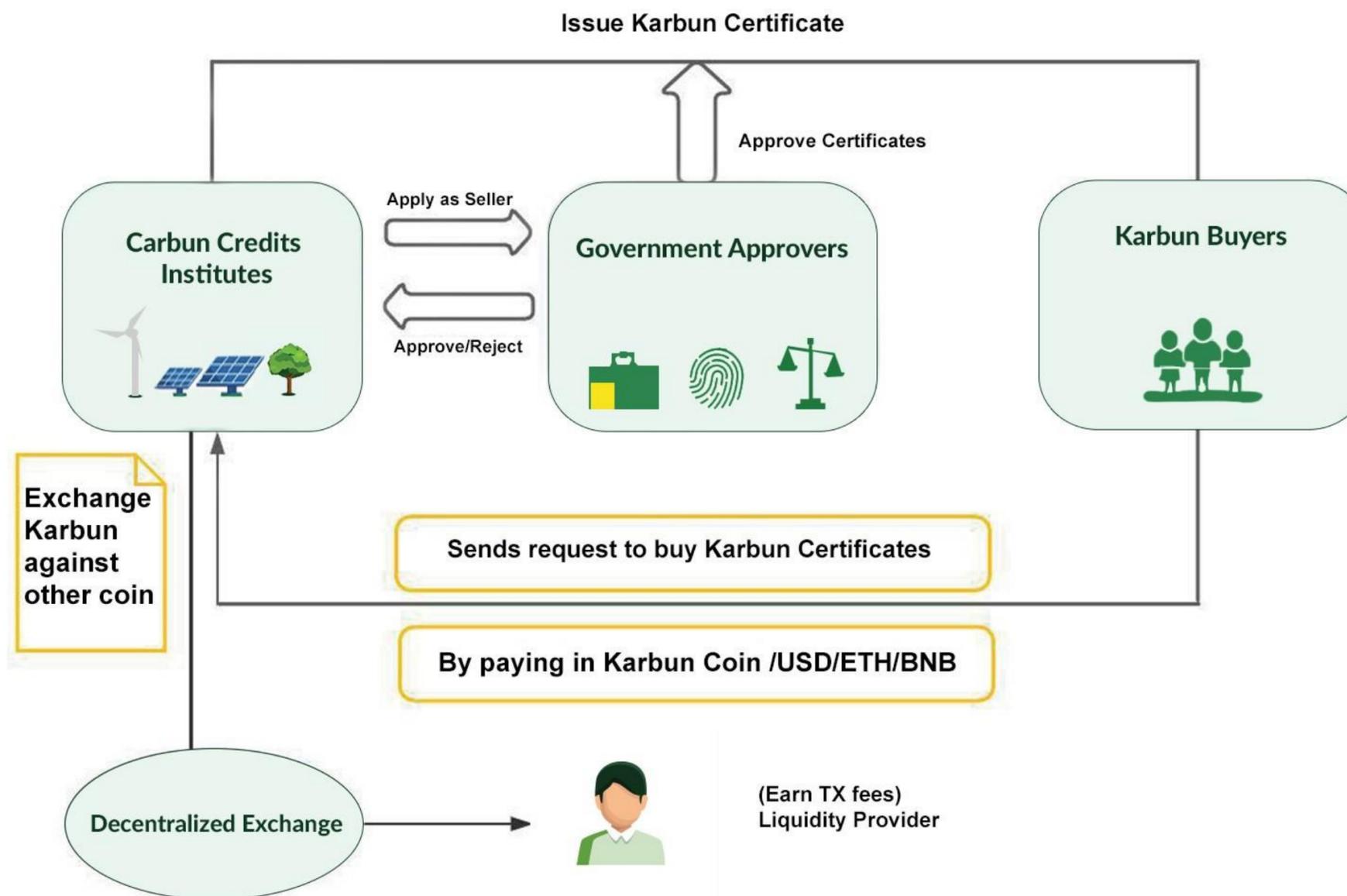
#3

The monitoring mechanism will supervise the memory used by each circuit and allocate resources in a balanced manner

# 5. How Karbun Works

## How Karbun Works

In this project, different stakeholders involved are "Generators" of carbon credits (i.e., wind farms, tree-planting operations, CO2 sequestration projects, etc.) and "Consumers" of carbon credits (i.e., carbon emitters or polluters of any kind such as the energy industry) as well as other stakeholders such as regulators, concerned citizens, and validators. "Validators" are an essential part of this ecosystem. They are accredited, globally distributed, technically competent consultants who are incentivized to parameterize appropriately and onboard projects to an open architecture marketplace that matches interested parties generating and retiring carbon credits.

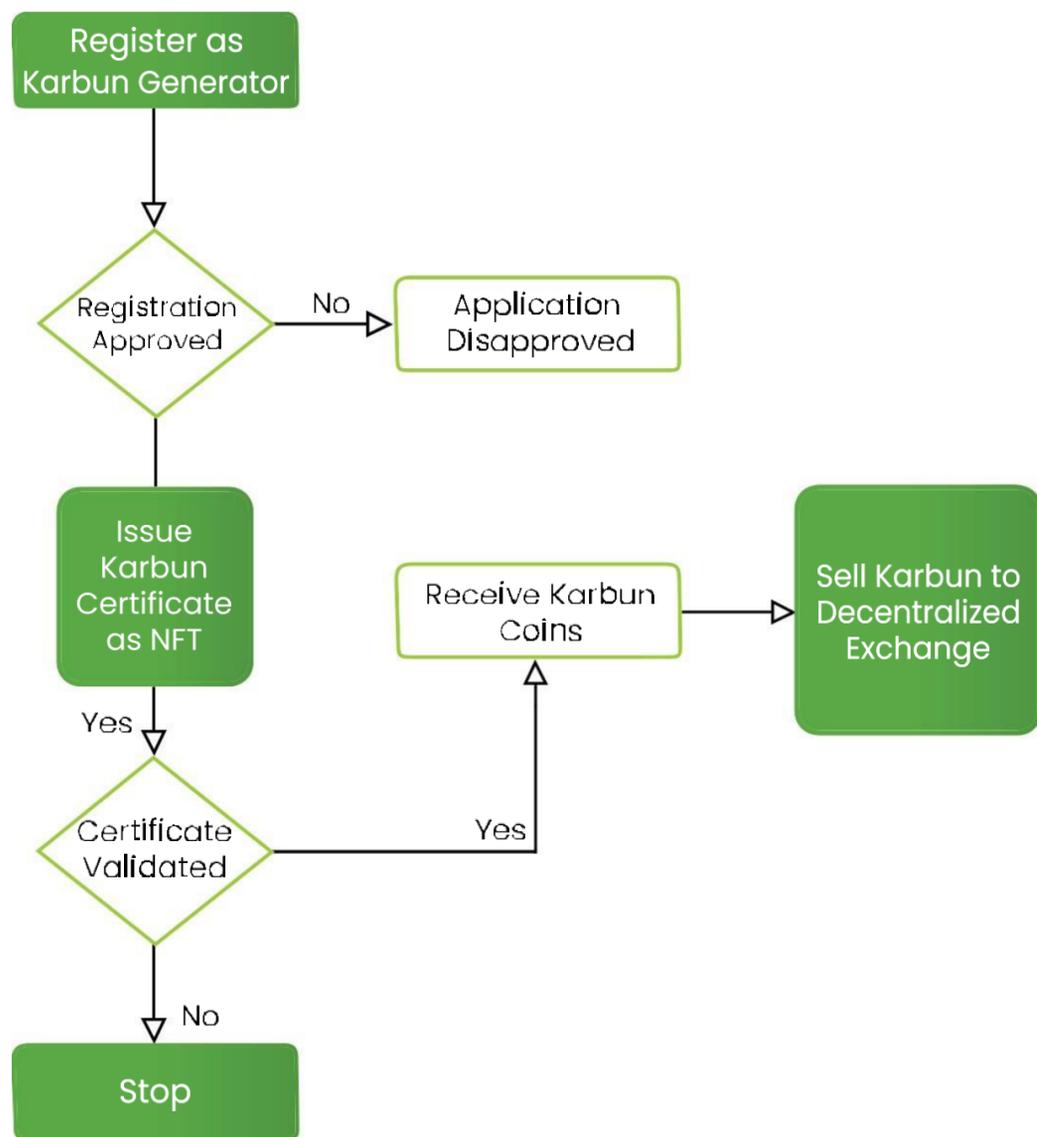


We will onboard Karbun to the platform as a stable coin at USD18, equivalent to 1 Tonne of Carbon credits currently in the USA. Karbun will be distributed to carbon credit generators after formal validation of their projects. Buyers and sellers of Karbun will use a decentralized exchange platform (DeX) created within the Karbun Ecosystem. This DeX will be utilized to swap Karbun against ETH/BTC/BNB/ZKT. The liquidity providers in the Exchange platform will earn 0.25% of the transaction fees and 0.05% of the fees will go to the platform wallet. The emitters will buy NFT based certificates (approved by Generator and Government Regulator) against Karbun Coin, KBC. The generator will receive KBC. The platform deducts a transaction charge for enabling the transaction. The generator can swap KBC anytime on the DeX as per above.

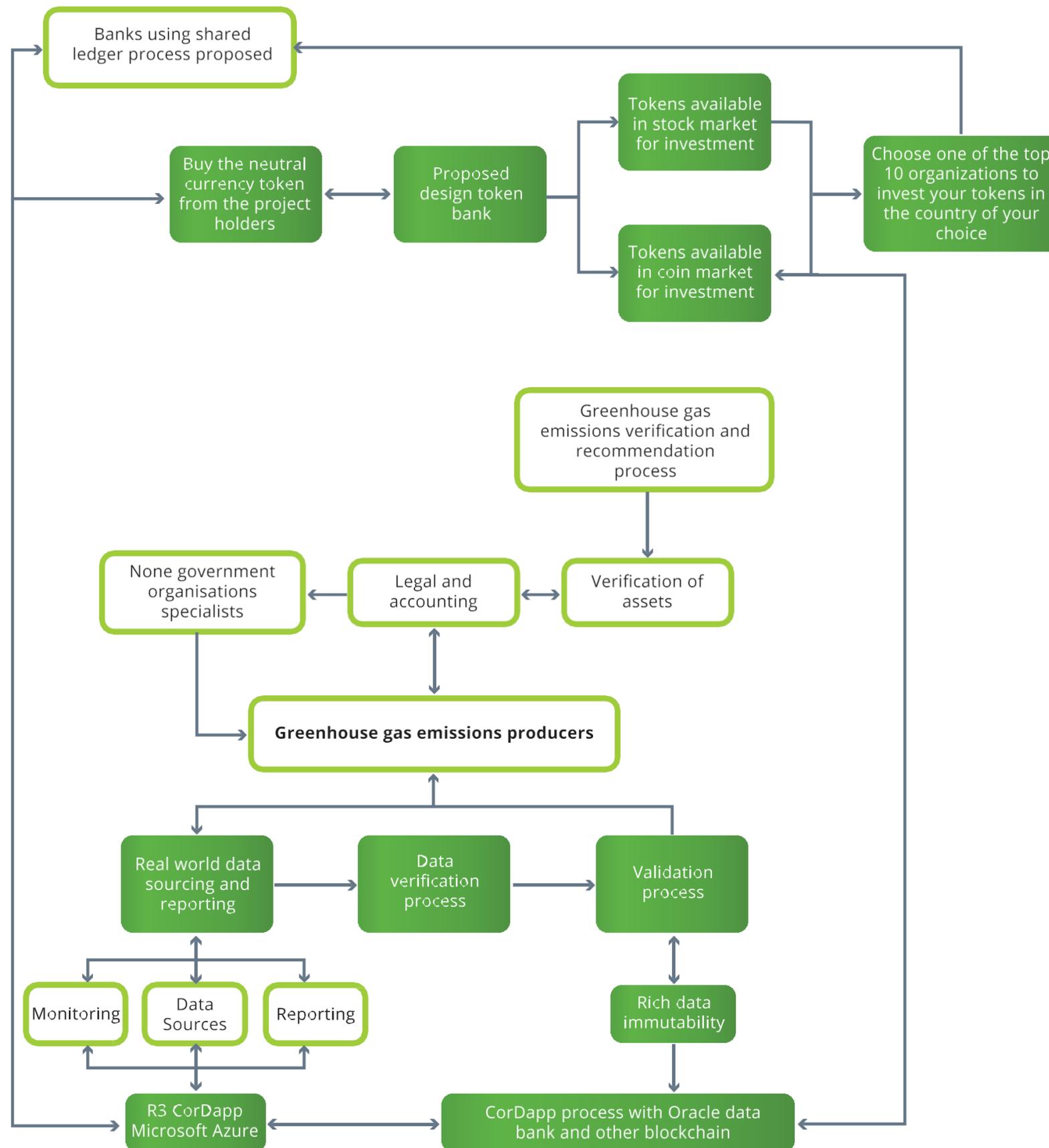


Karbun's futuristic digital architecture is designed for keeping factors associated with privacy, scalability and strong governance at the forefront. Our team has improvised the existing infrastructures and redeemed their flaws to give a staggering boost to World's Carbon Neutrality movements for collective tackling of Climate Change hurdles.

Karbun biosphere intends to assist various Stakeholders to Carbon credit markets as follows:

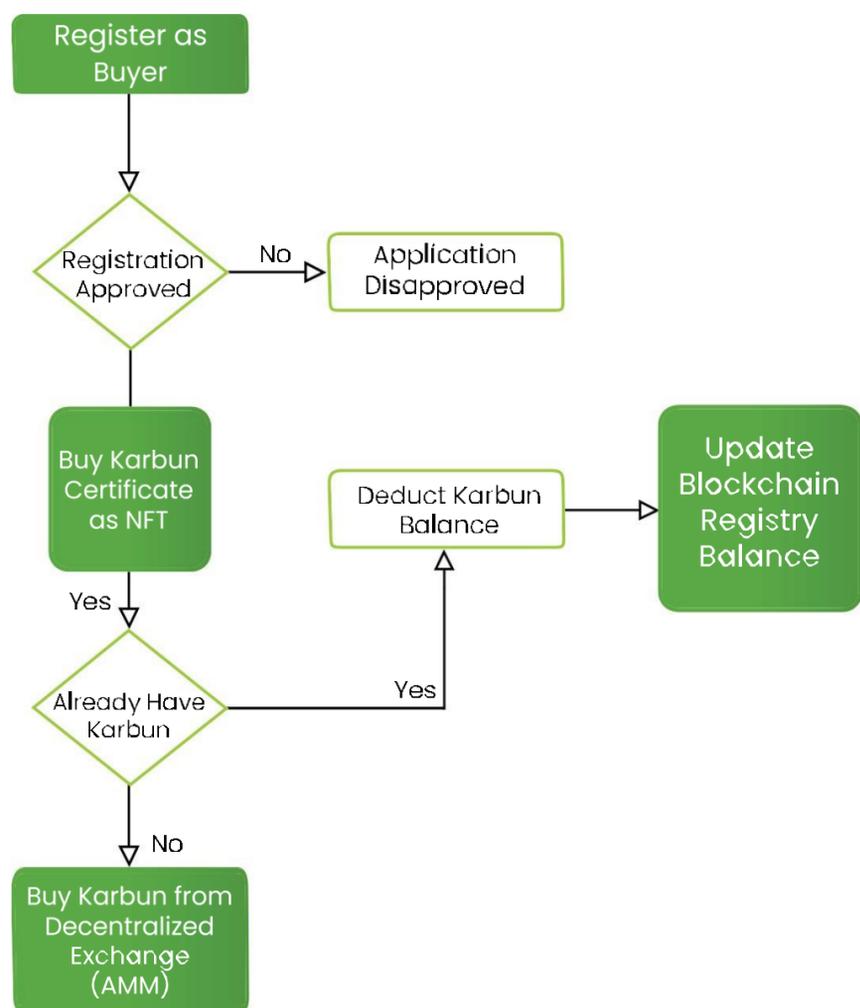


**Karbun Generator Flow**

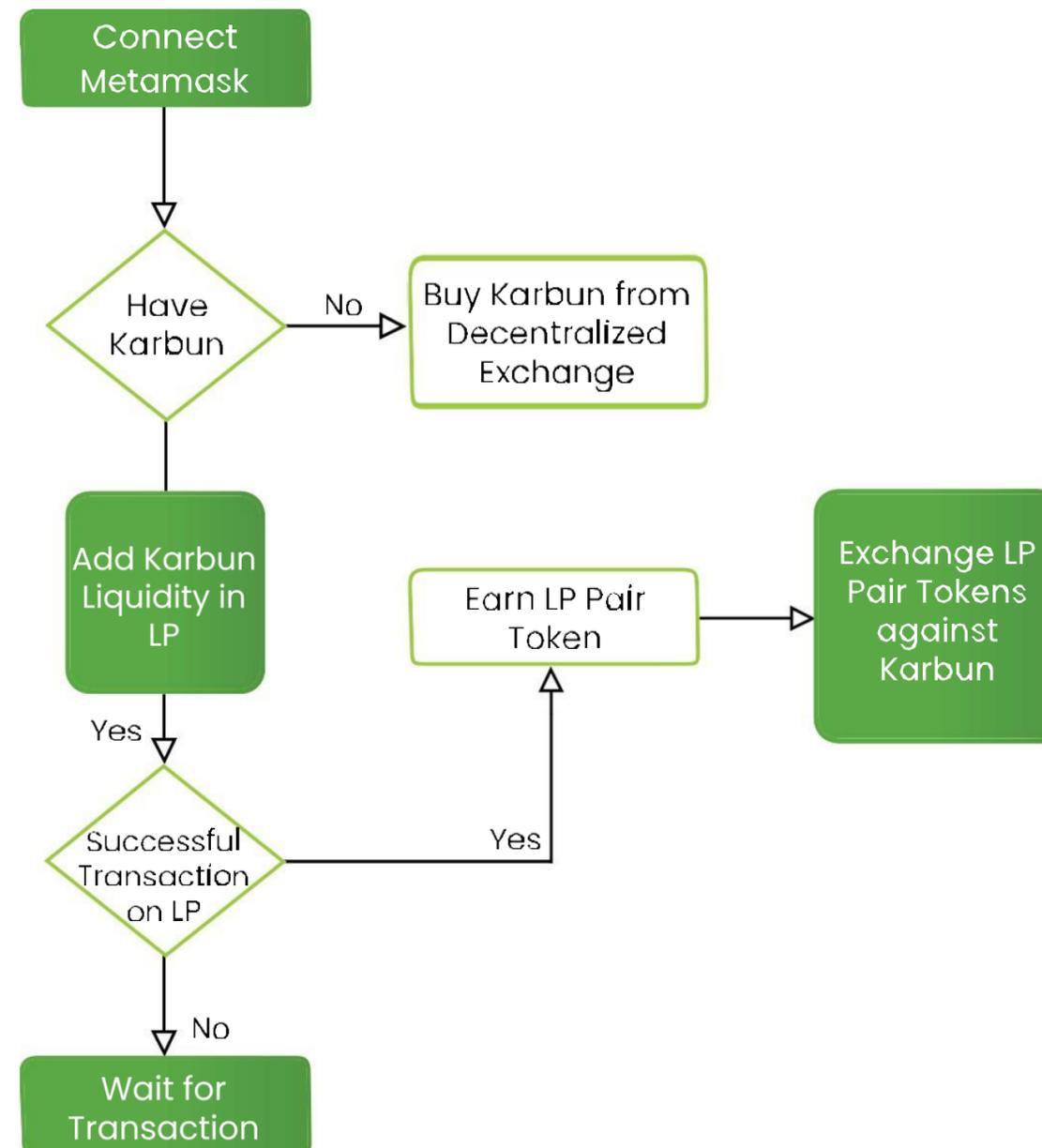




We have proposed to integrate Ethereum with a modified R3 Corda application using smart-contracts in such a manner that both systems operate under a single platform and neutralize the exhaustive energy strains of the former. This process will help create the ultimate platform of platforms (PoP) for banking consortiums and decentralized systems imbued in global Carbon Markets, facilitating exchange of Greenhouse gas emissions to a neutral currency via 'Karbun's for payment acceptance and settlements to significantly improve transaction volume. Our solution also has the potential to connect any/all Coins and allows all/any Coins to be traded in the coin market and stock market.



**Decentralized Exchange User Flow**



**Karbun Consumer Flow**

To ensure the consensus process is 100%, we have added the following mechanism services: a notary node; an identity node; an Oracle service and a network mapping node. These services are provided to stop double spending and support the involved financial systems to interact and transact in real-time. All nodes are connected to each other to form a shared ledger, which allows different business networks (i.e; banking consortiums) to join and operate simultaneously. In addition to this, there are four necessary service nodes, which are responsible for the following tasks:



**1. Notary node service:** The Notary service is responsible for checking double spending of transactions. Notary Node is a network service that provides unique-consensus by testing the newly given transaction and checking if it has already signed other transactions that consumes the proposed transaction's input states or not. Meaning, once a notary service receives the transaction, it will Sign the transaction if it has not already signed other transactions consuming any of the proposed transaction's input states and rejects the transaction and flags that a double-spend attempt has occurred. The Notary service makes the final decision to confirm a transaction and, until the notary service's signature is obtained, parties cannot conclude that a transaction is valid. It will be deemed conflicted or an 'invalid' transaction and will be reported back to input states, which will be shared in the shared ledger systems on both platforms. However, if/when the notary signature is obtained, it can be assured that the proposed transaction's input states have not already been consumed by a prior transaction. Hence, notarization is the final decision maker in the system. We would also like to add that R3 Corda is "pluggable" to any consensus processes, which allows all notary clusters to choose a consensus algorithm based on their requirements in terms of privacy, scalability, legal-system compatibility and algorithmic agility with different notary services and has the following principles:

- **Structure** - A notary service may be a single node, several mutually-trusting nodes, or several mutually-distrusting nodes

- **Consensus algorithm** – Is also called Algorithmic trust controls, where a notary service may choose to run a high-speed, high-trust algorithm such as RAFT (Servers that are up-to-date to be the leaders on decision making processes, which makes the transaction volume higher than Corda can produce (which is 600 to 2000 transactions per second), a low-speed, low- trust algorithm such as BFT and Paxos (any server or node could be a leader, which is slow, and the systems get updated after the transactions input states are confirmed by majority), which is the normal process for most decentralized systems. Most of the assets on Ethereum use this algorithm consensus process to validate their smart contracts.

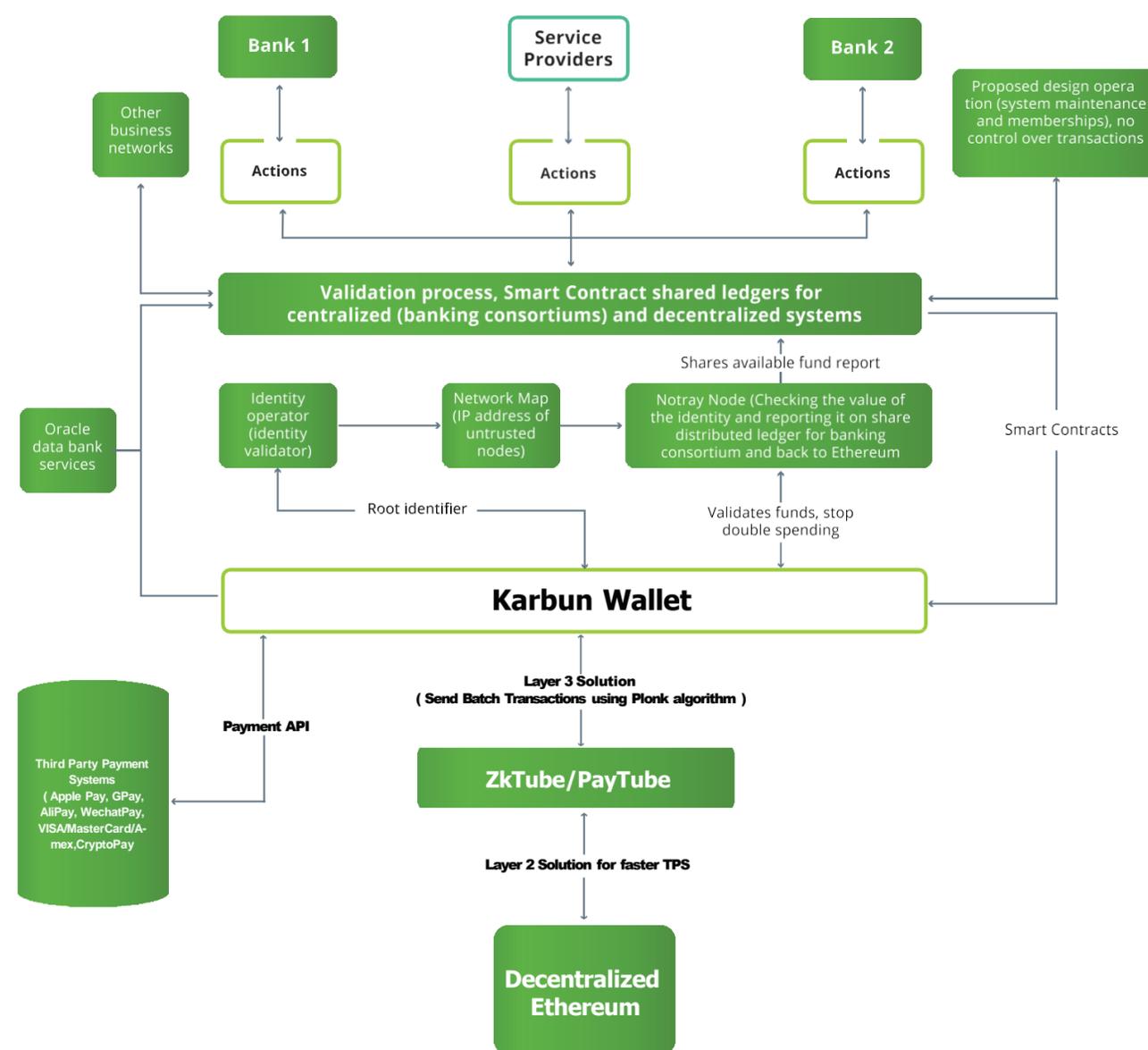
- **Validation** - Notary services must also decide whether or not to provide validity consensus by validating each transaction before committing it. If a transaction is not checked for validity (non-validating notary), it creates the risk of "denial of state" attacks, where a node knowingly builds an invalid transaction consuming some set of existing states and sends it to the notary services, causing the states to be marked as consumed.

**2. Identity node service:** Identity service is responsible for checking the identity and permissions of transactions and other entities. An identity service maintains a directory of parties by their distinguished parameters. An identity service maintains a directory of parties by their unique name/public keys and thus supports lookup of a party given its key, or name. The service also manages the certificates linking confidential identities back to well-known leader-server.



**3. Network mapping service:** The network mapping service is responsible for node lookup and the data platforms such as Microsoft Azure and blockchain-oracles, which are well known data-identification providers services in R3 Corda. The network mapping service provides the public identity of a party, registered with the network map directory, whereas confidential identities are distributed only on a need-to-know basis (typically between parties to a transaction).

**4. Oracle data service:** Oracle data service is responsible for verifying transactions and confirming that all facts are true (e.g., the exchange rate at time x). Blockchain-oracles are trusted third-party services that feed trusted data to the blockchain networks. They serve as a bridge between the outside world and the blockchains. Blockchain-nodes can query these trusted third-party services when there is a need for external data), which is responsible for introducing real-world information. All four service nodes are designed and selected to ensure security validation processes create trust between organizations, are cost-effective and reduce energy consumption via – only inviting the vested parties to participate in transactions, rather than the redundant majority of its members for reaching consensus in Carbon Trading decisions.



# 6. Token Allocation



# KBC Tokenomics

**Total Supply: 321,000,000 tokens**

**Airdrops: 6,420,000 tokens**

**Community followers: 9,630,000, tokens**

**R&D: 16,050,000 tokens**

**IEO & Venture raise : 16,050,000 tokens**

**Partners : 32,100,000 tokens**

**Founders Team : 32,100,000 tokens**

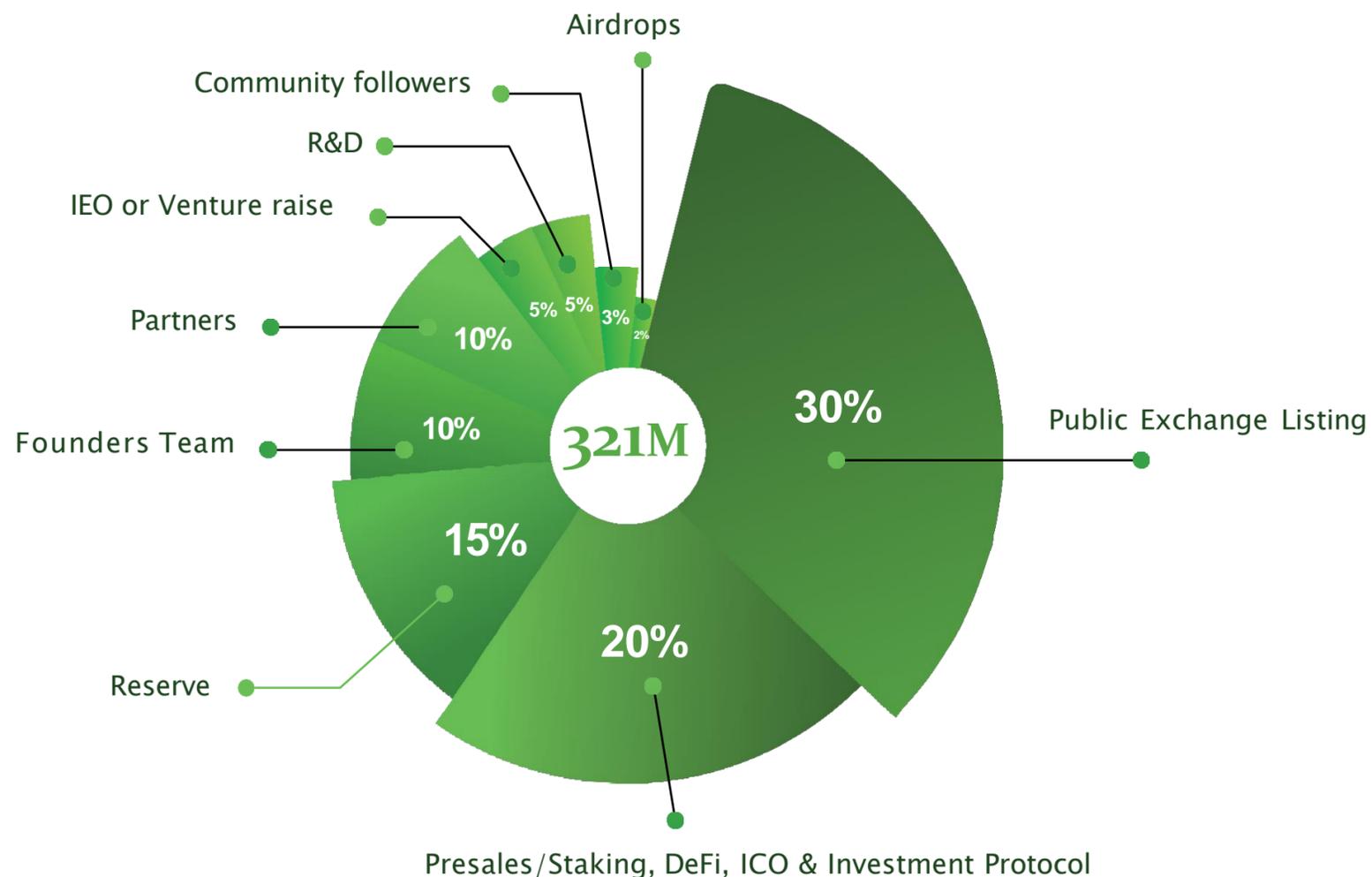
**Reserve : 48,150,000 tokens**

**ICO, Presales/Staking & Defi: 64,200,000**

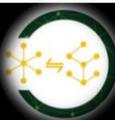
**Public Exchange Listing: 96,300,000 tokens**

For Private Sale and Venture Capital Tokens only, the following vesting applies:

- 1. 10% of the total allocation of Tokens purchased are non-vested and available on Public Exchange.
- 2. The remaining 90% of the allocation shall be issued on monthly anniversaries in equal proportion, with each monthly allocation vested for an 18-month period before being available on Public Exchange.



# 7. Roadmap



# Roadmap

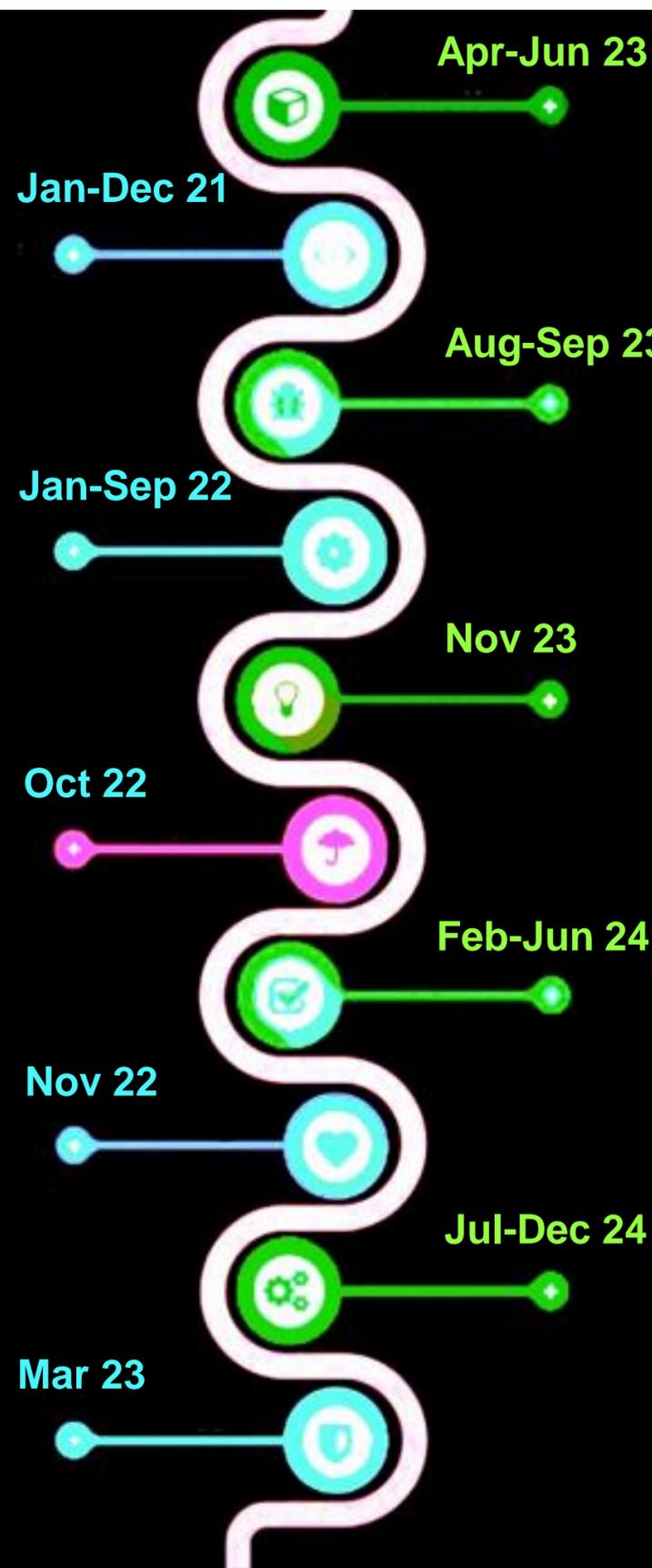
1. Design & Development, Whitepaper & University Research for Karbun platform Completed

2. Karbun Platform Prototype, ICO platform, pitch-deck and Seed Funding round completed. Design & development of 5 different coins to built upon Karbun platform in progress – New Coins to be paired with KBC (5% discount when purchasing the 5 new coins with KBC).

3. Private & Venture capital achieved by Crabtree Capital. Launch of L3 for Binance Smart Chain & ETH2.0. Karbun Swap, Liquidity Pool and Yield Farming, ICO & EIO all been launched on testnet

4. Karbun Swap, Liquidity Pool, Yield Farming and NFT platform uploaded live.

5. Karbun Platform (KBC) to list on CoinStore - confirmed by April. Fundraising for scaling. Buy, Sell, Swap and Offset carbon solutions. KBCC automates the current manual processes.



6. Partnership with UK BNG and centralized systems, Karbun mirroring assets wallet/MasterCard and links to Ecommerce - banks and share trading platforms.

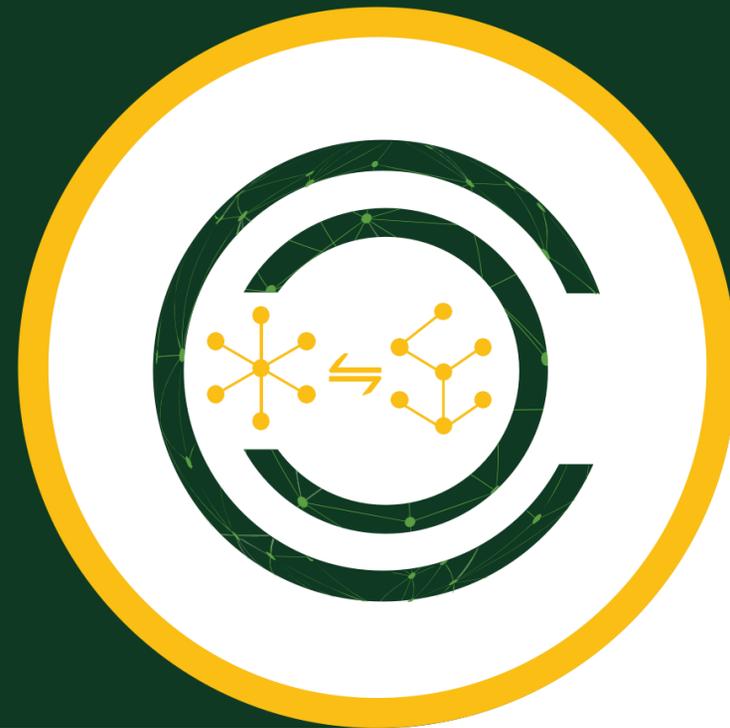
7. Karbun Pharma (KBCP) our 2<sup>nd</sup> Coin to be launched. Buy, Sell and Swap pharmaceuticals without intermediaries. Karbun Launchpad - a springboard for exchanges commences

8. Karbun Commodity platform launched – Buy, Sell and Swap commodities. A virtual SPA to remove boundaries for trades internationally.

9. Create Sovereign coin platform (KBCS) – Asset backed trading coins & stable coin. A platform for the automation of development for new tokens. From an idea to an exchange within a month – integration solutions for majority of smart contracts.

10. Develop Partnerships with Equities Markets such as the NYSE

# 8. Team



# Our Team



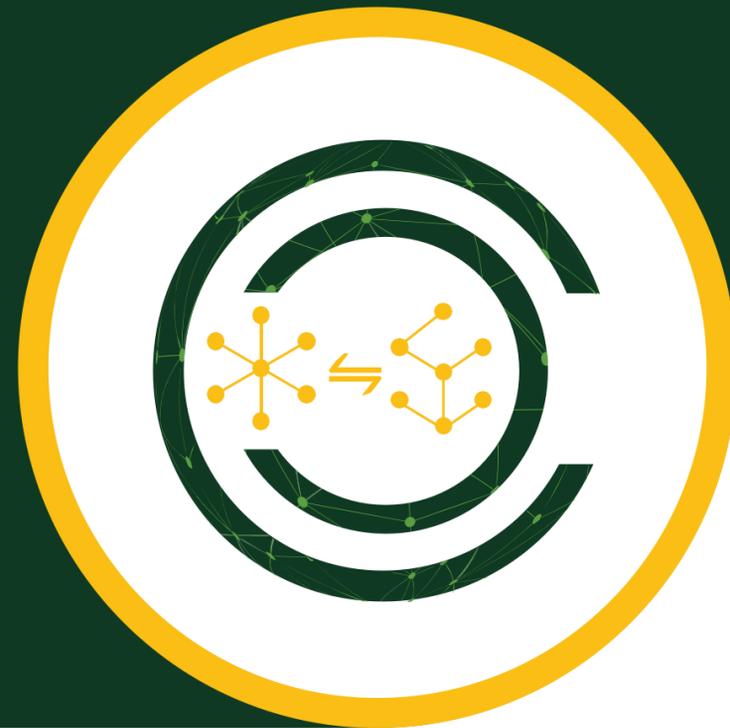
**Mr. John Sajadi**  
Founder

Mr. John Sajadi is a highly distinguished IT specialist with more than 20 years of extensive expertise up his sleeve ranging from Software Development life cycle delivery management and automating strategies for transportations and logistics to diverse financial applications of recent Blockchain Technology. A highly-driven technologist with remarkable entrepreneurial spirit, Mr. Sajadi enjoys developing new technologies that can simplify lives of everyone while significantly contributing towards the processes that help create wealth for every individual involved. Mr. John Sajadi has Masters & Doctorate of Information Technology Leadership from renowned Deakin University and is also the Founder of TickToc and iiRide Ride-sharing platform, along with being the Vice-President of JZ Petroleum in California. Mr. Sajadi is driven to transubstantiate the future of Payment Solutions and is the Winner of Corp Global business Leaders 2020. John is also the founder of the award winning platform TiCKPAY 2021 and CEO of zkTube.



**Mr. Nikesh Lalchandani**  
IT & Finance Head

Nikesh Lalchandani has rich experience of over 11 years in the Commonwealth Bank of Australia as Head of Payments Architecture, Head of Payments Innovation, Emerging Technology Innovations Executive. He has been instrumental in some of Australia's major fintech innovations such as real time payments, and the first cross-border bank to bank cryptocurrency/blockchain exchange. He's a key-Advisor to government and industries, including Woolworths' new start up WPay and Australia's highest recognised IP - Blockchain startup Bloxian where he was Chief Strategy Officer. He is President of Deakin University's Honour Society (GK), for high performing students and is a senior member of the IEEE and IEEE Computer Society, Financial Markets (FINSIA), a Chartered Banker with the Chartered Bankers Institute (UK) and Fellow of the Financial Services Institute of Australasia (FINSIA).



# Our Team



**Mr. David Charles Evans**

Director-Marketing

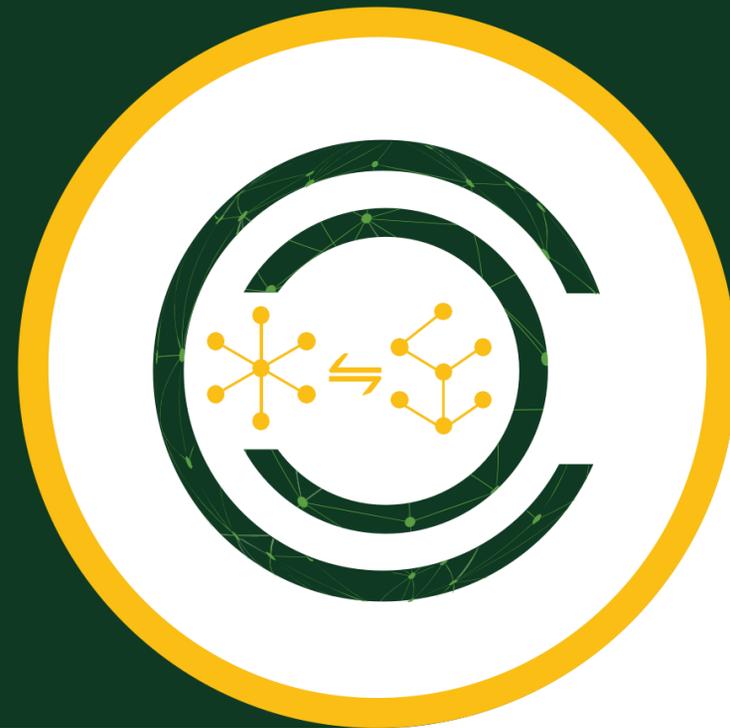
David Evans is responsible for managing New Forests Timber Products, which was established to bring marketing services to New Forests' hardwood investments in Tasmania and mainland Australia. He is responsible for generating markets for the annual 3.5 million GMT of hardwood chip, biomass and log production and maintaining and developing the customer relations across the world market. He has over 30 years of experience in international trade development in North Asia and the woodchip market in particular. David has lived and worked extensively throughout North Asia for 20 years, developing strong relationships with target industries. David has a Bachelor of Arts and a Master of Business Administration specialising in International Finance and Trade from the University of Queensland in Australia.



**Mr. Steve Dew**

Karbun Commercial Operations

Mr. Dew is firmly of the belief that our future generations will look back at this moment in time and be grateful for the actions we take today to invest in our rich and diverse Earth, flora and fauna. He appeals for us all to acknowledge that humanity has indeed reached the point where it is now absolutely essential to go all-in to develop bona fide carbon neutral and carbon negative programs to help our world to a better place. He rests on the phrase ... What is good for the world is good for us, not the other way around. He has lived and developed working relationships in London, New Zealand and Australia, is the co-founder of iiRide, a graduate of a Bachelor of Arts - Education and a highly regarded business professional. Mr. Dew is humbled to be a part of this incredibly committed team and is passionate about encouraging action to ensure the longevity of all life forms on Earth.



# Our Team



**Mr. Alok Agrawal**  
Chief Technical Officer

Alok Agrawal has two decades of experience in global provisioning of tailor-made Software solutions. He has won numerous accolades and honors in his career for his industry services, including- Blockchain Impeccables Asia Pacific 2019, Tech Based Innovator Award, Successful People from Global Herald TV Group and has been recognized by publications like Entrepreneur.com, Yourstory.com, The Business Fame Magazine, Enterprise Resource Planning Magazine etc. He is a technological revolutionary and a prime Consultant at countless ICO organizations across the Globe. He has extensive expertise within the Blockchain industry.



**Mr. Wouter Raasveldt**  
Venture Capital Specialist

Mr. Wouter Raasveldt strongly advocates that that we are in essence benevolent people who are environmentally conscious and are truly concerned about taking care of the Earth. The younger generations are exceptionally engaged in building an environment friendly and sustainable Global society. We can give them the tools to judiciously utilize natural resources and protect global ecosystems to support long-term health and wellbeing for current and future populations. Mr. Raasveldt has enjoyed an extensive career in International Trading, Venture Capital Financing and aiding countless Start-up journeys. He has a strong entrepreneurial mindset and is passionate about exploring and investing in lucrative win-win opportunities that are driven to give back to the society and our shared environment. Founder of Crabtree Capital, he is industrious and adept by virtue of which, he has set-up a network of operational offices in Europe, USA and Australia.

# 9. Legal Statements



# Forwards Looking Statements



## Scope

Commerce on the internet has come to rely almost exclusively on financial institutions serving as trusted third parties to process electronic payments. What is needed is an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party. Transactions that are computationally impractical to reverse would protect sellers from fraud, and routine escrow mechanisms could easily be implemented to protect buyers. In this paper, we propose a solution to the double-spending problem using a peer-to-peer distributed timestamp server to generate computational proof of the chronological order of transactions. A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution.

## Definitions

There are differing concerns on the legal status of cryptoassets and, in particular, whether the law treats them as property. The general nature of cryptoassets as property will be determined by the laws of your residency, jurisdiction over the same will be governed by our residency regardless of conflict of laws. Whether the laws of your residency would treat a particular crypto-asset as property ultimately depends on the nature of the asset, the rules of the system in which it exists, and the purpose for which the question is asked. In general, however:

(a) cryptoassets have all of the qualifications of property;

(b) the novel or distinctive features possessed by some cryptoassets—intangibility, cryptographic authentication, use of a distributed transaction ledger, decentralisation, rule by consensus—do not disqualify them from being property;

(c) nor are crypto-assets disqualified from being property as pure information, or because they might not be classifiable either as things in possession or as things in action;

(d) Crypto-assets may therefore to be treated in principle as property.



# Forwards Looking Statements

It is important to note that some jurisdictions define cryptoassets as smart contracts wherein two or more parties have reached an agreement, intend to create a legal relationship by doing so, and have each given something of benefit. A smart contract is capable of satisfying those requirements just as well as a more traditional or natural language contract, and a smart contract is therefore capable of having contractual force. Whether the requirements are in fact met in any given case will depend on the parties' words and conduct, just as it does with any other contract.

The parties' contractual obligations may be defined by computer code (in which case there may be little room for "interpretation" in the traditional sense) or the code may merely implement an agreement whose meaning is to be found elsewhere (in which case the code is unimportant from the perspective of defining the agreement). Either way, however, in principle a smart contract can be identified, interpreted and enforced using ordinary and well-established legal principles.

There are some legal rules which require certain documents to be "signed" or "in writing". In principle, a statutory "signature" requirement can be met by using a private key which is intended to authenticate a document, and a statutory "in writing" requirement can be met in the case of a smart contract whose code element is recorded in source code (although the analysis may be less straightforward where a smart contract is represented only in object code on a running system).

The legal status of this cryptoasset may vary substantially in each jurisdiction. Whereas the majority of countries do not make the usage of bitcoin itself illegal, its status as money (or a commodity) varies, with differing regulatory implications. While some jurisdictions have explicitly allowed its use and trade, others have banned or restricted it. Should you make a decision to act or not act you should contact a licensed attorney in the relevant jurisdiction in which you want or need help.

## Utility Token

This cryptoasset is meant to be a utility token. It is a digital coupon that can be redeemed in the future or discounted fees or special access to a product or service. Unlike security tokens, however, it is neither an investment nor does it derive value from an external asset that can be traded.

This token for sale does not have the legal qualification of a security, since it does not give any rights to dividends or interests. The sale of such tokens is final and non-refundable under any circumstances whatsoever. Such tokens are not shares and do not give any right to participate to the general meeting.

This token cannot have a performance or a particular value outside our network, hence these tokens are not to be used or purchased for speculative or investment purposes. The purchaser is aware that national securities laws, which ensure that investors are sold investments that include all the proper disclosures and are subject to regulatory scrutiny for the investors' protection, are not applicable. Anyone purchasing our token expressly acknowledges and represents that she/he has carefully reviewed this document and fully understands the risks, costs and benefits associated with the purchase of the token.

## Risks

The purchaser undertakes that he understands and has significant experience of cryptocurrencies, blockchain systems and services, and that he fully understands the risks associated with the same, as well as the mechanism related to the use of cryptocurrencies (including storage) in their respective geographies.

Acquiring tokens and storing them involves various risks. Therefore, and prior to acquiring tokens, any user should carefully consider the risks, costs and benefits of acquiring such tokens and, if necessary, obtain any independent advice in this regard. Any interested person who is not in the position to accept or to understand the risks associated with the activity (including the risks related to the non-development of our platform, or licenses to operate) or any other risks should NOT acquire our cryptoasset/cryptocurrency/coins/tokens.



# Thank You

[www.karbun.io](http://www.karbun.io)

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+61415898818



[sales@karbun.io](mailto:sales@karbun.io)

ICO platform to purchase Karbun tokens (KBC) please click here

[www.karbun.io](http://www.karbun.io)