

SIAMSQUARED TECHNOLOGIES CO., LTD.

# CARBONEUM

## DEMOCRATIZED SOCIAL TRADING PLATFORM

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(VERSION 2.1)

BY

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## ABSTRACT

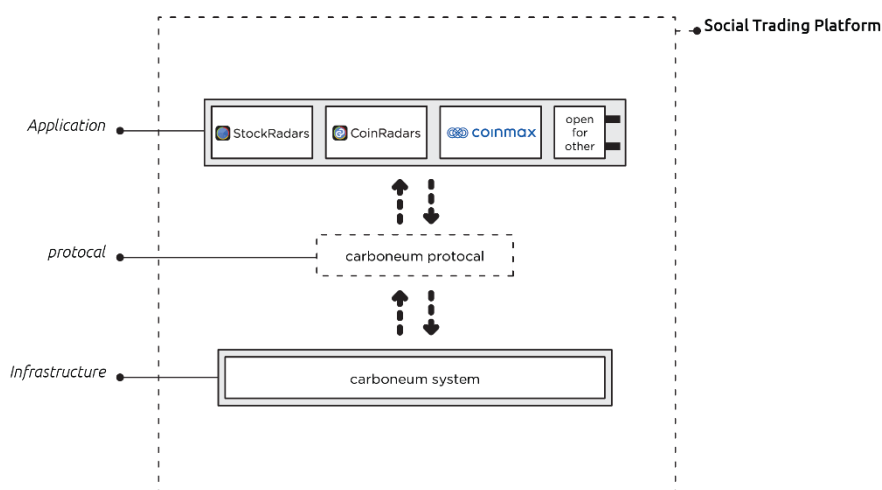
Carboneum is creating a decentralized social trading platform, named CoinRadars. Carboneum is an openly distributed protocol owned by every single user. Where traditional social trading platform helps solve complexity problem, it still lacks transparency and remains vulnerable to single point of failure risk. The platform will be completely immune to such problems. It is built to sustain and scale with a sound revenue model where ultimate alignment of interests is structured, creating a perfectly democratized trading platform for digital assets.

## 1 INTRO

For centuries, mankind has vowed to make simplification of investment process an ultimate quest and yet countless attempts have yielded only failures thus far. Investment procedure remains as complex and out-of-reach for majority of global population eligible to advance their asset allocation effort. Meanwhile, financial tools have become so powerful in today's era, as a global ratio of stocks traded value to Gross Domestic Products (GDP) has been substantially growing throughout decades, constituting an astounding level of growth from 24 percent in 1991 to 125 percent in 2016, quintupled itself over the past 25 years.

While most people deem typical finance as a tool for their profit maximization of traditional asset investment, we desire to generate a much greater impact as a borderless decentralized social trading platform which effectively channels through the flows of digital assets in the Asian region. Despite a solid and comprehensive technological impact blockchain has laid on digital asset & cryptocurrency market, the need of simplified investment tools in this highly sophisticated field goes far beyond what we can comprehend and remains of great importance.

Inspired through our extensive experience in building Thailand's number one analytical tool and trading platform for stock investment, we have developed a clear vision of how to make investment in digital assets & cryptocurrencies simple and accessible for everyone. It is conceivable blockchain technology is a crucial steppingstone that would pave way towards endless opportunities for the smartest, simplest and most user-friendly investment specialist tool that might change digital asset investment landscape one has never experienced before.



*Figure 1: Macro-level architectural structure of StockRadars, Coinmax, CoinRadars and Carboneum – Carboneum will be an open protocol built on blockchain technology for platforms like StockRadars, CoinRadars, Coinmax and other future platforms, all of which are backed by the infrastructure of Carboneum system*

Taking full advantage of such movement, we are hereby creating a decentralized social trading platform, named CoinRadars, on the backbone of Ethereum smart contract with an open protocol and token called Carboneum, that desires to bring the ultimate solution to the biggest roadblocks in digital assets and cryptocurrency investment; complexity, overwhelming information, lack of transparency, lack of decentralization and lack of direction for new entrants. The greatest belief of our core team lies in simplifying the investment experience. We strongly believe investment should be for everyone. CoinRadars will be allied with all key digital asset and cryptocurrency exchanges, making it a go-to platform for digital assets and cryptocurrencies enthusiasts, to ensure seamless and borderless experience for digital assets and cryptocurrency investment for everyone. To make long story short, CoinRadars allows users who are not equipped and content with making their own judgement on digital assets transaction to simply follow industry experts and copy their trading orders, either automatically or manually upon final consent after being notified on real-time basis. The platform also promotes a great degree of customization, permitting users to adjust and match their fees, within a certain range predetermined by the platform, based on their altitude of risk preference and expected return.

## 2 PROBLEM

- **Investment in Digital Assets and Cryptocurrencies is Complex**

In order to invest, we need to understand – this simple correlation is proven factual over multiple centuries and across every asset class. But for those who have little to no prior exposure to any digital assets and cryptocurrencies, they could be severely limited to understand the mechanism behind those investment vehicles and extremely reluctant to enter the market. It is even probable to mention those who are already trading digital assets and cryptocurrencies could barely explain the true definition of what they have been transacting on. The degree of information one needs to study is absolutely overwhelming, especially for those without technical background. Ultimately, without thorough understanding of basic, fundamental and technical concepts and utilities of given digital assets, potential investors with excessive interest often left on the outside looking in due in a large part to reluctance resulted from their fragile comprehension of such market. Having said that, certain technological implementation, where social trading mechanism is profoundly involved, can be a kryptonite to such problems, and in turn making investment in digital assets more democratized and simpler than ever for everyone.

Above all, we have extensive experience and proven track record in building and maintaining an award-winning technological platform to help simplify investment process for stocks and mutual funds, in StockRadars and FundRadars, and we strongly believe the core foundation of our technology is entirely transferable and capable of replicating similar success in digital assets and cryptocurrency investment.

- **Centralized Trading Platform Lacks Transparency**

Traditionally, social trading is executed on a centralized platform; an entity or website acting as a centralized agent, requiring users to transfer money into a server-owned account to set up initial trading balance. Such agent then carrying out copy trading mechanism by simply repeating trade orders submitted by expert traders ('leaders') for users who choose to follow them ('followers') and agree to pay a specific type of fee in exchange for that service.

Nonetheless, the most critical drawback of centralized platform lies in the fact users by no means can verify if each and every transaction carried out by leaders is actually copied to the followers. How can we really substantiate if strategies implemented on the followers' social trading command completely mirrors that of the leaders? What if there are miscues or failure to copy trading orders on a timely basis? Despite those opportunity cost being monumental, the platform in which operates with centralized nature takes no accountability of such colossal mistakes. At the moment, there is no such platform able to provide solution to those disadvantages. Therefore, the lack of transparency observed in centralized platform is definitely a glaring concern for the actual underlying of wealth generation brought by copy trading mechanism.

- **Traditional Social Trading Platform is Seriously Exposed to Single Point of Failure Risk**

Centralized platform is also extremely vulnerable to single point of failure risk, whereby an error of a single part could bring the whole system to collapse. The best example, building on the aforementioned section, is when the server of a copy trading website is under distributed denial-of-service (DDoS) attack or hacked. This could lead to serious consequences such as users' inability to take the money out of the platform, or at the very worst, a total loss of money.

To counter these problems, we are building decentralized social trading platform with an open protocol that communicates with all major digital asset and cryptocurrency exchanges directly. This concept imposes great significance in ideal transparency, and complete decentralization for trade order execution. That protocol is named Carboneum and the platform is to be called CoinRadars. These two are main catalysts that would eventually help bring ideal ecosystem for investment to reality. These concepts will be clarified in the following parts of this paper.

### 3 COINRADARS – DECENTRALIZED SOCIAL TRADING PLATFORM FOR DIGITAL ASSETS AND CRYPTOCURRENCIES

Blockchain technology enables the community to replace business activities of individually centralized corporation at a global scale with networks of open, transparent and decentralized computing system that work across borders. For that reason, we then aim to create a trading and investment platform for digital assets and cryptocurrencies which authorizes the greatest degree of knowledge sharing, promotes the purest form of transparency whereby all trading activities and actions are recorded and become totally traceable, verifiable and auditable via utilization of blockchain technology. And most importantly, we are extremely determined to build a tool that helps simplify the trading decision for newcomers, who by and large are not as technologically and technically educated, compared to those industry veterans, by implementing the concepts of social trading/copy trading.

Before we move further, it should be highlighted one of the most striking characteristics of decentralized platform is mutual contribution. Every single user is momentous to the success of the platform. On CoinRadars, Ethereum is implemented primarily on the fundamental point of relationship in social trading mechanism, helping the system to identify and obligate one user to another, or in specific, a follower to a leader, via smart contracts. It also gives permission for the platform to standardize rules, penalty and settlement practice through such on-chain technology. Nevertheless, it is highly important to note Ethereum alone, from a functionality standpoint, is not sufficient to make CoinRadars operate in the most efficient way possible, as it cannot optimize trade order execution on a real-time basis, whereas timeliness in digital asset and cryptocurrency trading is of paramount importance. Most crucially, transaction cost on Ethereum is too high and is considered unsustainable in longer term for CoinRadars platform. We therefore need to build our own off-chain technology, an open protocol tailor-made for social trading purposes, called Carboneum.

### 3.1 OVERVIEW AND CONCEPTS OF SOCIAL TRADING

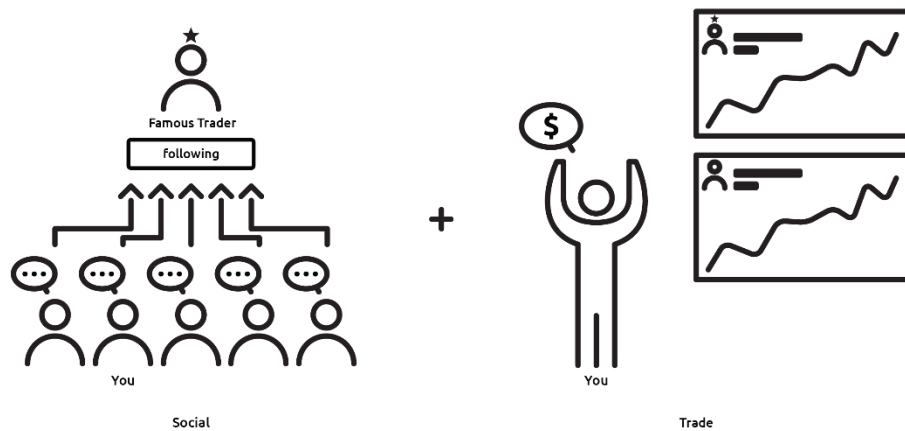


Figure 2: Key characteristics of Social Trading/Copy Trading – 1) Users can choose expert traders to follow, establishing a ‘follower & leader’ type of relationship, based on the expected returns and risk preferences and 2) Users can learn the trade & investment strategies implemented by more than one leader, depending on how many they choose to follow, and combine them in order to make the optimal one of their own

Traditionally speaking, social trading or copy trading is defined as a service which enables any users to take a role of follower, giving the greenlight to them to duplicate the transactions of a leading trader. The concept was first introduced and practiced in financial market, especially stocks trading. Intriguingly, the greatest achievement social trading brought to this world is it allows new investors to simply take a shortcut and deem the need to educate themselves about financial products unnecessary. The sole responsibility users have is to make sure the right leader, whose assets allocation, success rate and risk tolerance are in line with their preference, is chosen.

The emergence of social trading has effectively minimized heavy reliance on fundamental and technical analysis. Rather, it overtakes the alternative way of evaluating financial information by comparing and copying trading orders, techniques and strategies. For instance, as we live in the world where social media is one of the most important driving forces in the society and vital parts of our daily routines, social trading exploits trading data-feeds and other indicators made available by other traders in the given networks, to come up with successful trading strategies. It is widely believed enhanced interaction among traders, a common practice in social trading,

signifies knowledge sharing process and considerably helps shorten learning curve for new participants.

It is however of great significance to note implementing social trading for the purpose of short-term monetary benefit is considered detrimental from the moral and ethics perspective. At its core, social trading gives the opportunity for new traders to observe and learn by copying trading orders; to know which trading strategies fit their investment style and help them gain consistently.

### 3.2 KEY VALUE PROPOSITIONS OF COINRADARS

As aforementioned, CoinRadars is a decentralized social trading platform embarking a new way of digital asset and cryptocurrency trading. We aim to build a world-class social trading platform for digital assets which is fully decentralized and totally independent of all exchanges. Key value propositions of CoinRadars are consisted of the following;

- **Transparency**

Decentralization leads to transparency. Each and every transaction is processed and recorded using blockchain technology in which traceability and ownership of action are at premium. To ensure the greatest level of independency, CoinRadars will be working with, but not subject to, all leading digital asset exchanges. But more importantly, CoinRadars also emphasizes on the transparency revolving around social trading elements. As a result, performance stats, historical trading positions, transaction records, of both the followers and leaders on our platform, will be completely accessible.

- **Simplicity**

Trading on CoinRadars is exceptionally easy for beginners. Not only can they win the trade quickly but they also can learn by observing the strategies by following the right leaders. CoinRadars understands real pain points of users and aspires to create the most intuitive and user-friendly investment platform, therefore we put user experience at the apex of our priority list. Our mission is to replicate how Instagram filters help turn ordinary smartphone users to professional photographers to the digital assets trading world. Additionally,



CoinRadars also offers fully customizable ‘Radars’ technology to help filter suitable digital assets based on investment behavior, expected returns and risk preferences unique to each user. Each radar is constructed based primarily on specific pattern of price movement while also incorporating other factors such as a significant change in trade volume into the formula. It is worth mentioning our Radars technology is fully compatible with digital asset and cryptocurrency market.

- **Knowledge Sharing**

Social trading exemplifies boundless knowledge sharing. It offers the opportunity for traders to work collaboratively on trading strategies, either by sharing information, working on multiple market research or pooling other resources together. In addition, CoinRadars also capitalizes on free flow of information among digital assets and cryptocurrency investors in the network, allowing them to exchange any forms of knowledge liberally. It is also highly important to reemphasize CoinRadars’ commitment to transparency, which in turn creates limitless opportunities for potential traders who desire to contribute as leaders in the platform; not only human can be listed as leaders on CoinRadars but robot/AI traders can also participate in such role. Likewise, not only limited to amateur traders but also licensed fund managers can similarly join the platform, enhancing their asset allocation and exposing themselves to cryptocurrency market, as either a leader or a follower. In short, CoinRadars seeks to be the most democratized investment platform for all user types, both followers and leaders. It is an ultimate platform that stages the opportunity for an amateur digital asset investor to become a high-performing fund manager, and earn a living like one. This would consequently lead to substantial job creation, similarly to how Uber plays an instrumental part in creating jobs or additional income for non-taxi drivers. CoinRadars positions itself as ‘wisdom of the cloud’, a digital asset investment platform for everyone by everyone.

- **Incentivized Business Model**

It is reported by eToro, one of the world leading copy equity trading website, that approximately 78 percent of all copied trades were closed in profit since its launch in 2010. This has laid ground for future businesses where win-win-win situation is achieved due in

large part to perfect alignment of interests and incentives. This system however still has flaws and will be elaborated further in this paper later on. On CoinRadars nevertheless, by using smart contracts, based on blockchain technology, we create the system to lock up leaders and followers and collect fee automatically when each positive gain is realized. Most notably, followers will only be charged a certain percentage of fee, and leader will therefore earn majority proportion of that fee, only upon positive trade results. This motivates the leaders to be significantly more thoughtful and imposes basic accountability on them; they will only get paid if and only if they bring tangible results to the followers.

As digital assets trading is completely commoditized, customer touch point is highly crucial to the scalability of any platforms. Accordingly, all major exchanges would want to work with CoinRadars voluntarily because their API is completely open and CoinRadars is built on Carboneum, an open protocol itself. By working with CoinRadars, in returns they will undoubtedly acquire more customer, gain access to more tools and achieve better customer engagement.

This table summarizes, compares and contrasts key characteristics of the system and fee structure imposed on traditional centralized social trading platform and Carboneum/CoinRadars

	<b>Traditional Social Trading Platform</b>	<b>Carboneum/CoinRadars Platform</b>
Centralization	Centralized	Decentralized
Trust	Trust imposed on a middleman to guarantee security of the process	No trust imposed on a specific 3 <sup>rd</sup> party
Fault Tolerance	Exposed to single point of failure risk	No central point of failure risk
Scalability	Limited to system owner's resources	Users mutually contribute to the growth of a system that supports infinite number of nodes
Transparency	System owner can hide all the data from user	System may hide or show data from participant (by system design)
Fee Structure	1) Spread discount 2) Percentage of AUM	Success fee made from successful trades only
Fee Distribution	Majority of fee goes to the platform	Majority of fee goes to leaders
Payout Condition	Copied traders still earn by making bad decisions	Leaders can earn only by making good decisions
Ethics	Copied traders are not driven to perform	Leaders are driven to deliver tangible results

*Figure 3: Key differences between Other Traditional Social Trading Platforms VS Carboneum/CoinRadars Platform in 9 major categories*

### 3.3 BUSINESS MODEL & TRADING MECHANISM – HOW DOES CARBONEUM WORK?

The model for major source of revenue is very simple; success fee will be collected upon each and every, but limited only to, successful, positive yielding trade.

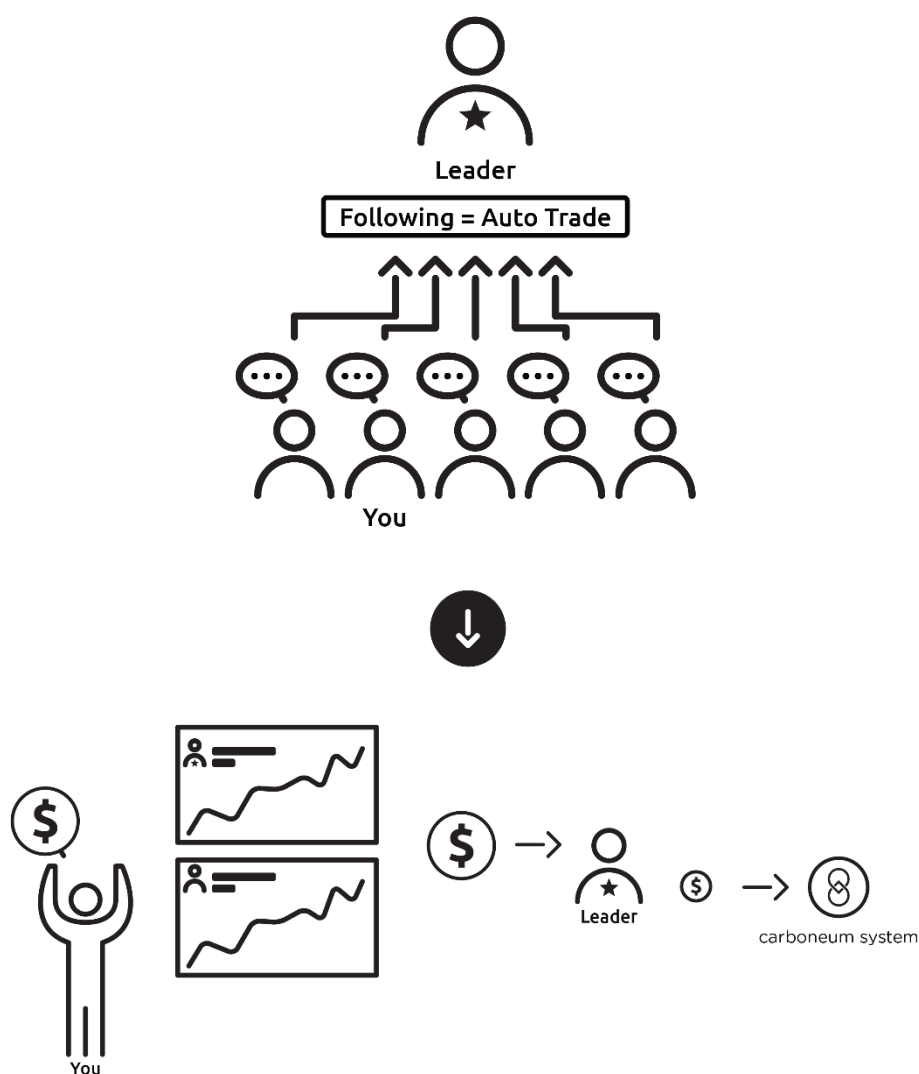


Figure 4: Trading Mechanism and Fee Structure on Carboneum – 1) Users can choose expert traders to follow, establishing a ‘follower & leader’ type of relationship, based on the expected returns and risk preferences, and delegate the authority to execute copied trade orders automatically to Carboneum via ECR20 smart contract system and 2) In the event that users generate positive results from any trade orders copied from the leaders, users will be charged a certain percentage-based amount of fee by the system. The system will then transfer the majority of that fee to the leader as a mark-up for their service, with the remaining amount being kept as platform’s revenue

To expand on the mechanism from a technical standpoint, a leader creates copy trading contract on Ethereum with a follower accepting on their terms of profit sharing model. The leader will provide the access to their investment account comparable to giving an API key to third parties. Follower then signs the contract to start copy trading command of the leader. Follower is required to transfer Carboneum token to multisignature wallet for paying the fee in the system. This digital wallet however requires users to transfer Carboneum token, at a minimum reserve level, in order to activate trading activities. Users who fail to meet minimum reserve will be prohibited from executing trade orders, let alone using social trading feature. Further to the process, the order relay will automatically sign and onboard these contract to grant the right to process future trading operations to Carboneum. Relay will keep tracking trading activities on digital assets exchanges a user is associated with, and executing the trade operation for the follower such as opening position, taking profit order and closing position to the follower account on their exchanges. Once trading order is executed and positive gain is realized, relay will send a request to the contract to deduct fee from a digital wallet of a follower. In summary, the total amount of fee will therefore be collected by CoinRadars once a given user decides to close their trade position.

To epitomize the concept of decentralization, CoinRadars endorses full customization of the desirable rate of fee for leaders on distributed application. As any theory of basic finance would suggest, risk tolerance is a highly sensitive characteristic unique to any given investor. Likewise, a purely decentralized platform should allow followers and leaders to arrange different expected returns and risk preferences and match them freely. Some investors may enjoy greater magnitude of investment return, bearing in mind the higher level of risk associated to such option. Other investors, on the other hand, might be more contingent and have lesser risk tolerance, thereby lowering their expected return. In the same manner, the rate of fee charged by each leader should be democratized, within a certain band designated by CoinRadars, to reflect our collective effort to embrace diversity.

It is of essence to note in a certain situation whereby substantial gain is potentially taking place, based on a clear steep price movement of targeted digital assets in a short period of time, and token balance of a follower is possibly insufficient to pay for the supposed amount of fee, CoinRadars will signal a capital call directly to a follower. A notified follower then needs to fill up their balance to meet required amount to continue trading activities.

CoinRadars platform also makes settlement to contractual indebtedness to the system possible in the most transparent fashion, via smart contract. This permits the platform to enforce follower who have insufficient balance to pay the fee to settle the amount owed to the system and leader later on.

One of the main benefits from using multisignature wallet technology is it helps the system to collect fees more efficiently. Multisignature wallet technically grants partial ownership to a specific entity to manage assets allocated in such wallet based on a prearranged purposes agreed upon by both parties. Furthermore, there will be a predetermined ceiling for value of digital assets CoinRadars can deduct directly from the wallet but for a limited scope of services only. Alternatively, the platform can also issue credit to a user who is indebted to the system.

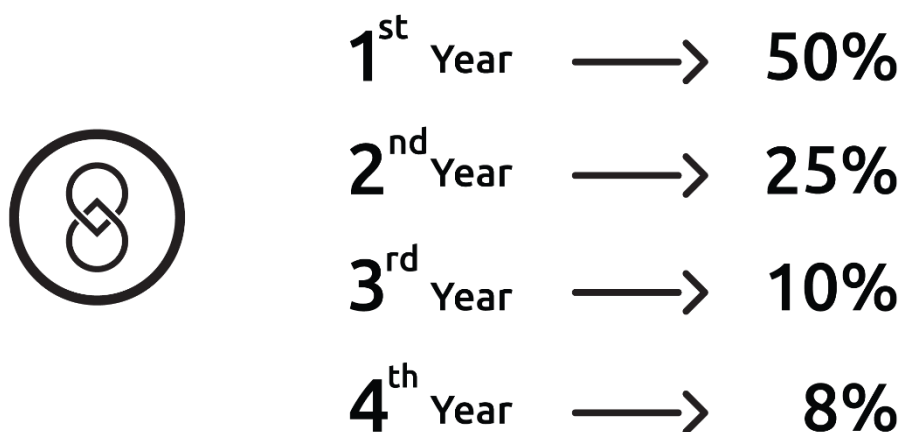
We also have alternative revenue channels in the pipeline waiting to be implemented in the future, such as affiliate fee from exchange and offering of other premium features and services.

#### 4 CARBONEUM TOKEN (C8)

We will issue our token called ‘Carboneum Token’ (C8), to be used primarily on, but not exclusively to, social trading features for digital assets. C8 certainly offers other utilities for premium services in the future, such as substantial discount on every type of fee.

Carboneum is also an open protocol for decentralized copy trading on Ethereum blockchain. It intends to serve a basic functionality for copy trading and benefits distribution between copying and copied investor, or in our terms, follower and leader. Using a publicly accessible system of smart contracts can act as shared infrastructure for a variety of decentralized applications (dApps) and platforms. It allows creating sophisticated platform tailored for investor requirements. C8 token is ECR20 smart contract which allows follower to pay their leader and be used in other activities on CoinRadars platform.

Specifically, C8 token holders will be benefited greatly in terms of discount on premium services, in which the fee will be reduced in half if paid by C8 token. That rate will be gradually reduced to 8 percent entering the 4<sup>th</sup> year and remain at that level perpetually for C8 token holders. However, it is of great significance to note at this stage C8 token can also be used in StockRadars and FundRadars applications to activate extra discounts on premium and exclusive features (see *Figure 5*).



*Figure 5: Different discount rate applied from Year 1 to Year 4 to C8 token holders*

#### 4.1 CARBONEUM (C8) TOKEN ICO – ALLOCATION AND FUND USAGE

In this ICO effort, a fixed amount of 200 million C8 shall be issued and shall never be reproduced in any forms. Out of that amount, 120 million C8 tokens will be offered publicly at a fixed price of 0.1 USD per unit. The allocation and fund usage is as shown below. It should be noted non-public tokens will be subjected to a 1-year silent period, effective from 8 March 2018. Similarly, pre-arranged tokens will be legally bound by a 3-year silent period. Nevertheless, a specific proportion of tokens allocated to be used in business partnership and rewarding program (see below) will not be constrained as such.

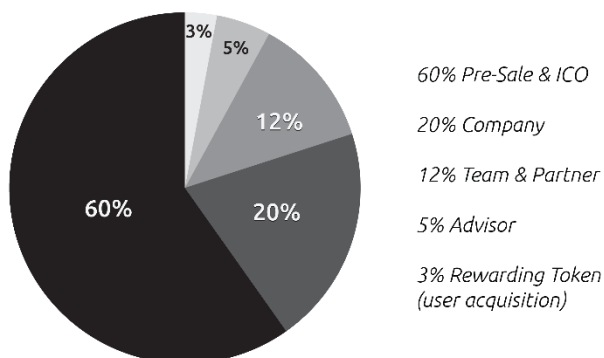
### Carboneum Token

*Token Name: C8*

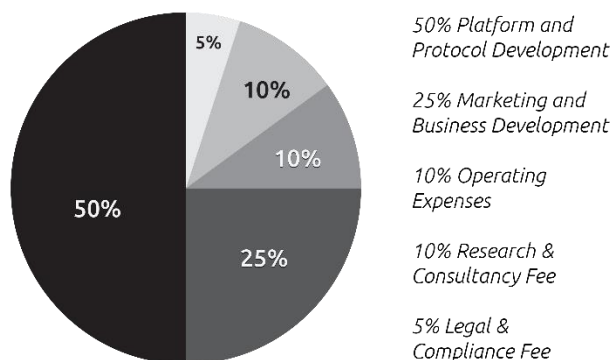
*Token for Sale: 120,000,000*

*Tokens Hard Cap: USD 12,000,000*

Allocation Chart



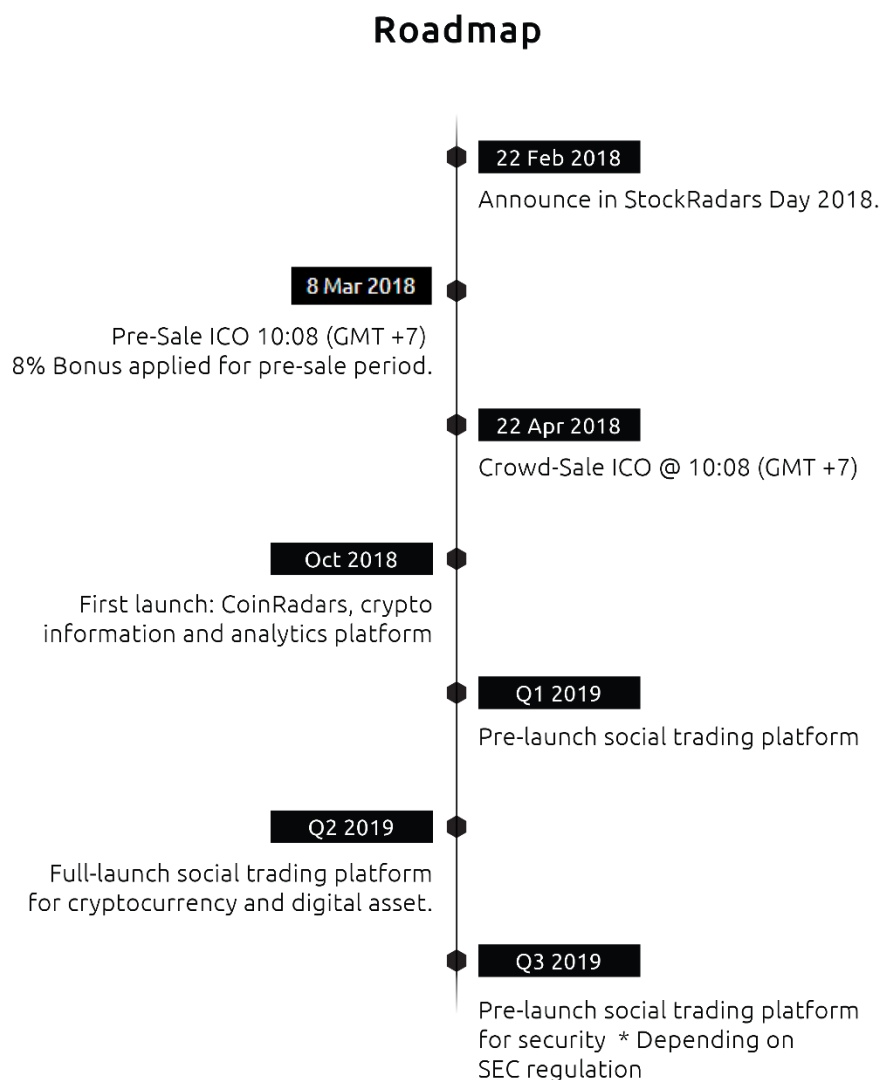
Fund Usage





## 4.2 CARBONEUM ROADMAP

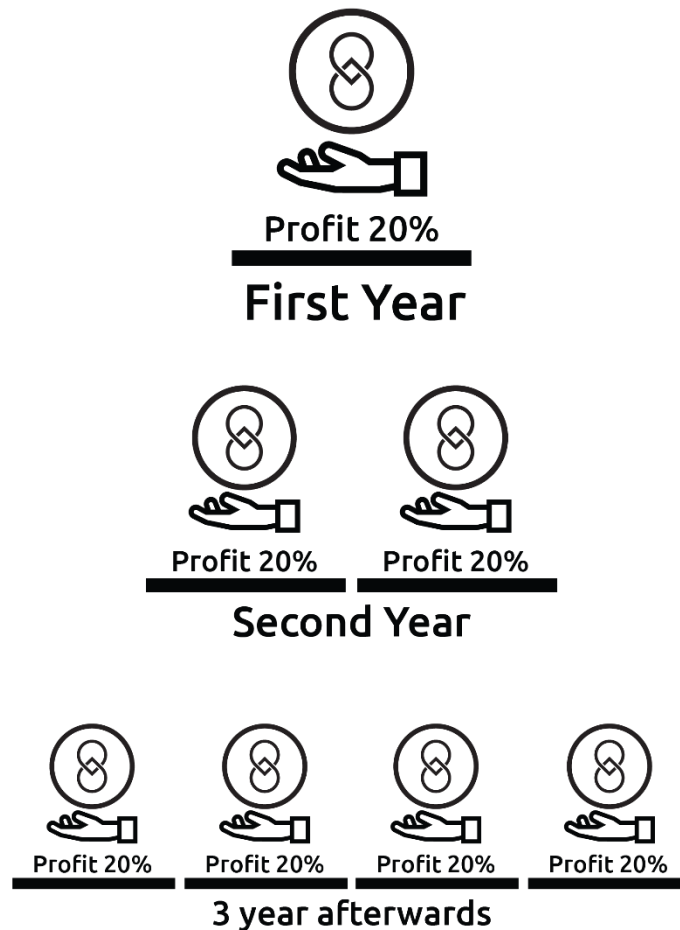
The pre-sale period starts on 8 March 2018, followed by the public sale on 22 April 2018. Other key dates and related actions are listed in the following timeline (see *Figure 6*).



*Figure 6: Carboneum Roadmap – the ICO-related dates & the launching dates of Carboneum & CoinRadars platform*

#### 4.3 CARBONEUM TOKEN REPURCHASING PLAN

It is our intention to gradually reduce the number of C8 by using our profit to repurchase and terminate them over time. Entering the second year after its launch, 20 percent of our net profit will be used to repurchase C8. In third year, we will do this semi-annually. And from fourth year onward, C8 will be repurchased and burnt on the Ethereum blockchain on a quarterly basis until half of C8 coin is repurchased, leaving 100 million C8 coins in the open market. All repurchasing effort will be recorded on the blockchain.



*Figure 7: Carboneum Token Repurchasing Plan – 20 percent of our net profit will be used to repurchase the token from the public market, starting at once a year. The effort will then be doubled in the second year and quadrupled in the fourth year, and remain at such rate until only 100 million C8 coins remain in the open market*

## 5. WHY US?

StockRadars is the team ideally made to tackle this challenge as proven in commendable success and well-documented track record in building and developing Thailand's number one online stock trading and analytical platform with 680,000 app downloads, double digits local and regional brokerage partners (see *Figure 8*) and 76 versions updated since launched. StockRadars also managed to achieve 25 percent market penetration based on the number of monthly active internet traders; in every four people who trade stocks online, one of them actively uses StockRadars. Above all, StockRadars is the only exclusive partnership of LINE Thailand, the provider of a market-leading chat application, in developing a service called LINE FINANCE and together they have accumulated a large and still-growing user base of 4.8 million people. This is more than tripled the number of people with internet trading accounts in Thailand (1.35 million as of December 2017, according to Stock Exchange of Thailand). With the help of StockRadars' technology, not only LINE FINANCE successfully approaches the uncharted territory, but it also empowers people to buy and sell stocks inside LINE application for the first time in the history of Thailand. The abovementioned list of accomplishments shows why nobody could epitomize 'investing made simple' more appropriately than our team.

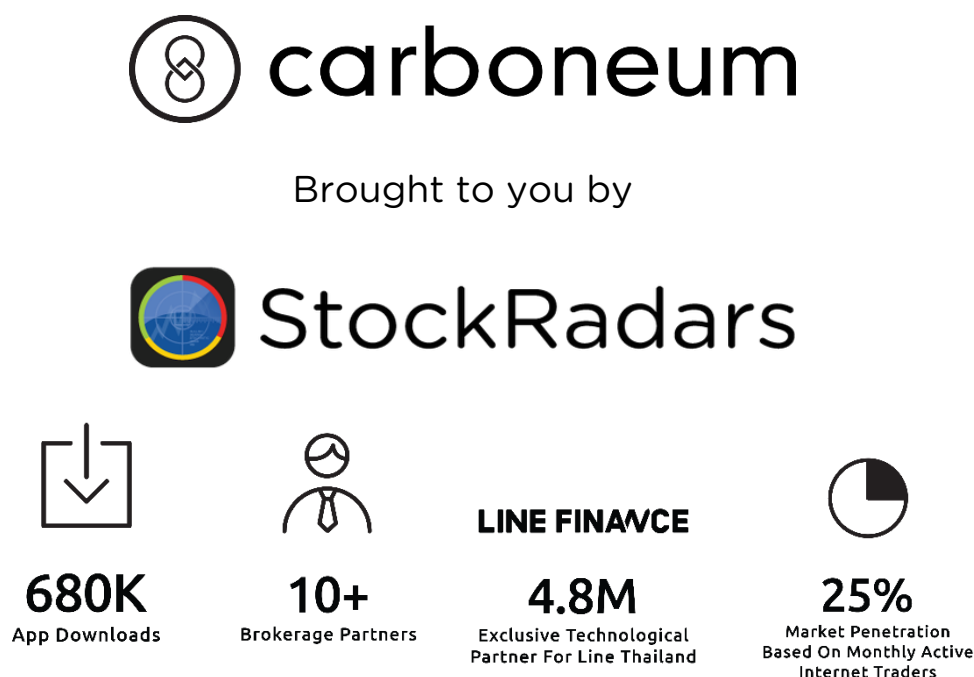


Figure 8: StockRadars major achievements as of March 2018

At StockRadars, we champion crowdsourcing and knowledge sharing to the greatest magnitude and we firmly believe the uprising importance of blockchain technology would only further signify a change of investment landscape and provide limitless opportunities in borderless market of digital assets and cryptocurrencies. We have been relentless in our preparation process, spending countless hours on research and development to make sure the platform we are creating is completely transitional and applicable with stocks, digital assets and other investment vehicles in the pipeline, making this the go-to platform for the future regardless of what you are looking to invest in.

### StockRadars Existing Customers & Partners



Figure 9: StockRadars existing brokerage partners & business partners

## Award & Recognition



Honorable Award  
IT Princess Awards (Thailand)



Stock Exchange of Thailand New Venture Award  
Angel Biz Challenge



Winner, Financial Industry Software  
Head of Research



Winner, Financial Industry Software  
Thailand ICT Awards



Finalist Fintech Challenge  
Securities and Exchange Commission Thailand



Bronze Award, Private Sector  
The ASEAN ICT Awards



Softwaredee  
National Innovation Agency



Finalist Tech Startup of the year  
Rice Bowl Startup Award



Join FbStart program  
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Figure 10: StockRadars awards & recognition

## 5. VERSION HISTORY

This document is subjected to further amendments and all the information of version history will be reported on GitHub. You may visit the following link for your own reference.

<https://github.com/CarboneumProject/whitepaper>



# carboneum

Democratized Social Trading Platform

