



VAND

Next Generation
Algorithmic Trading Builder
and
Portfolio Management Platform

White Paper

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ABSTRACT:

This whitepaper describes a sophisticated platform for building algorithmic trading strategies and portfolio management of cryptocurrencies. VAND is the proposed implementation of this platform, which intends to revolutionise the trading process of cryptocurrency markets. By using the VAND platform, users need not possess any programming skills due to the simplistic nature of our user interface, which uses a sequence of configurable blocks to create a fully functional trading strategy. Additionally, users who think they have an impressive strategy can publish its performance and monetise it through trading signals within the Vand community. Furthermore, the portfolio management system will allow users to form optimised portfolios in line with their risk/return expectations and allow easy management of their current holdings across various exchanges.



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1. Introduction

1.1 Background

Throughout history, the trading of assets has evolved greatly with the most notable evolution taking place in the last decade. With the increasing power of computers the entire trading experience has changed dramatically. Nowadays anyone can not only trade directly from their homes but they can harness the use of algorithms that will buy and sell assets under preconceived conditions. This has transformed the entire trading process and traders have to adapt to this new reality.

Artificial Intelligence and free sources of market data provide great opportunities for quantitative traders who use advanced statistical and mathematical techniques combined with AI to find market patterns.

The competition among quants on the US equity market has become fierce and now some look to cryptocurrency markets as an opportunity to maximise their profits. With basically no transaction fees and high fragmentation, the cryptocurrency market attracts more and more algorithmic traders¹.

Today we see the cryptocurrency market running with full steam ahead, with approximately 855 currencies and 215 tokens². With a total market capitalisation of over 144 billion dollars, cryptocurrency markets have become one of the most vibrant and booming markets for trading in recent years. These numbers attract not only ordinary traders who trade manually but also quantitative traders who use the power of machines in order to take an advantage over other market participants.

High volatility, low regulations and a number of highly liquid exchanges create a perfect opportunity for smart automated algorithms which assimilate the market inefficiency and make fast money for their owners. In order to stay competitive many traders want to automate their trading strategies but this often leads to a lot of problems.

1

<https://www.bloomberg.com/news/articles/2017-01-16/high-speed-traders-are-taking-over-bitcoin-as-easy-money-beckons>

² www.Coinmarketcap.com



1.2 The Problem

Nowadays, algorithmic trading on cryptocurrency markets is around 80%. Many traders realise that people cannot compete with machines and reevaluate their trading process, moving from a fully manual approach to harnessing some degree of automation.

In order to build an automated trading algorithm the user must possess strong programming and quantitative skills. In addition, servers are a necessity for fully automated algorithms.

All of these problems limit the potential opportunities for traders who want to trade with cryptocurrencies but cannot compete with machines. VAND Capital offers a solution to this problem.

1.3 The Solution

VAND Capital aims to revolutionise the algorithmic trading experience with cryptocurrencies by developing the most sophisticated platform for building and testing algorithmic trading strategies.

With the VAND platform all users will have the chance to expose themselves to cryptocurrencies by choosing between two main options - Active Trading and Passive Investing.

Active trading provides the opportunity to build and test algorithms for automated trading without having any programming skills. The algorithms can be constructed by simply moving blocks and building advanced trading logic. This may enhance a trader's trading results and save a lot of time programming from the ground up. With this comes the opportunity to sell these algorithms to other users and earn extra value for one's work.

Passive investing allows users to create a balanced portfolio of cryptocurrencies that provides the optimal ratio between risk and return. According to a user's risk profile the algorithms will define the optimal portfolio for the selected assets. By testing a user's portfolio with the benchmark and providing a lot of risk coefficients they will know exactly where their risk lies and the extent of their potential returns.



2. Building Trading Strategies - Active Platform

Active portfolio management describes market participants who buy or sell assets frequently in order to generate significant returns from the market. An active manager often speculates the future price of an asset across low or medium time frames. Algorithmic trading is becoming widely used on cryptocurrency markets. Because of the high volatility, price inefficiency, many different exchanges and almost no regulations, some traders have started using algorithms to capitalise on this through arbitrage and other complex trading strategies across multiple cryptocurrency pairs. These are the few traders who possess the required expertise and time to enable them to optimise their trading strategies.

The main hurdle a typical market participant faces when looking to automate their trading strategy is that it requires extensive programming knowledge just to get a basic strategy up and running. The other factor is the time required to build, test and optimise a trading strategy. A source of reliable data is also required in addition to dedicated servers. Luckily, the VAND platform strives to eradicate these problems so that any market participant will possess the tools needed to automate their trading strategy and ultimately improve their trading performance.

By overhauling the programming process and stripping it back to simple building blocks, users will be able to create a fully functional trading strategy from the ground up, simply by piecing together blocks that will each represent unique logical functions. The strategy will ultimately be as simple or as complex as the user defines in the sequence.

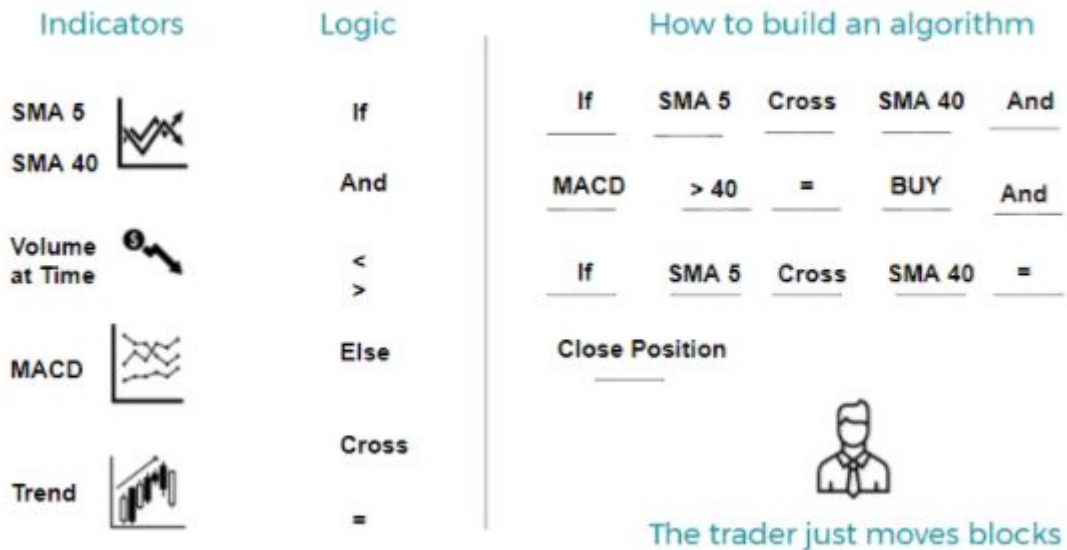
The platform will include all indicators that are widely used for technical analysis, as well as custom indicators that users are able to freely create and publish.

Some of the indicators are as follows:

- Simple Moving Average
- Exponential Moving Average
- MACD
- RSI
- OBV
- Stochastics
- Commodity Channel Index (CCI)
- Fractals
- ATR
- Bollinger Bands



- Volume at Time



The diagram above illustrates very basically the general idea of how the platform will function. An array of Indicators and Logic will be available to be dragged and dropped into position so that a sequence of blocks can be formed. This sequence will define the trading strategy and each block will be fully customisable according to the preferences of the user. If dragging and dropping blocks is not your style, trading strategies can also be programmed using Python and other quantitative development tools.

Additionally, a sophisticated charting tool will be integrated into the strategy builder platform to enable users to visualise and annotate ideas and strategies. On top of the traditional technical indicators one would expect from a system like this, users will have the option to custom-build their own indicators for use within their strategy.

Aside from the technical indicators that can be harnessed in a trading strategy, users will uniquely benefit from the models developed by the VAND team, which use Artificial Intelligence and Neural Networks to target volatility and volumes.

2.1 Artificial Intelligence for Defining Volatility

A unique feature of the VAND platform will be the opportunity for the user to capture the volatility of any cryptocurrency using our custom developed model supported by Artificial Intelligence. This will make buy and sell decisions easier.



We believe that the volatility can be somewhat anticipated by combining neural networks and statistics. This is how it works:

- We make a T-test of price returns

Price returns of the selected cryptocurrency are presented into time series of Y. Time series are divided into two subsets.

$(Y[1], \dots, Y[t])$ and $(Y[t+1], \dots, Y[n])$

$$t = \frac{(x_1 - x_2)}{\sqrt{\frac{(s_1)^2}{n_1} + \frac{(s_2)^2}{n_2}}}$$

The model seeks for Break Point for these time series. In most cases the small amount of observations of the two samples does not allow us to reject the tests for verifying the conditions (The constant variations into Heteroscedasticity and normal distribution). This means that we assume for near future the price movements follow Brownian motion.

- Autoregressive fractionally integrated moving average (ARFIMA) models

When the model finds Break Point it starts ARFIMA models. With these models we remove the autocorrelation of the prices and define the current trend for the cryptocurrency.

$$Y[t] = a + b*t + AR*Y[t-1] + \text{epsilon}[t]$$

Evaluations of “a” and “b” are used to build Confidence Intervals. These intervals helps us to define the barriers between which the price is expected to move. By using Neural Networks we analyse the process and confirm or reject the statistical results that we had. If the price is near this interval the algorithm will buy or sell according to the user’s preferences.

Users may add this function to their trading strategies just like adding indicators - by simply moving the block. This model will significantly improve the logic of when to buy or sell. However, this model should be used for trading without additional logic that the user may incorporate.



2.2. Ornstein-Uhlenbeck Process for Volumes

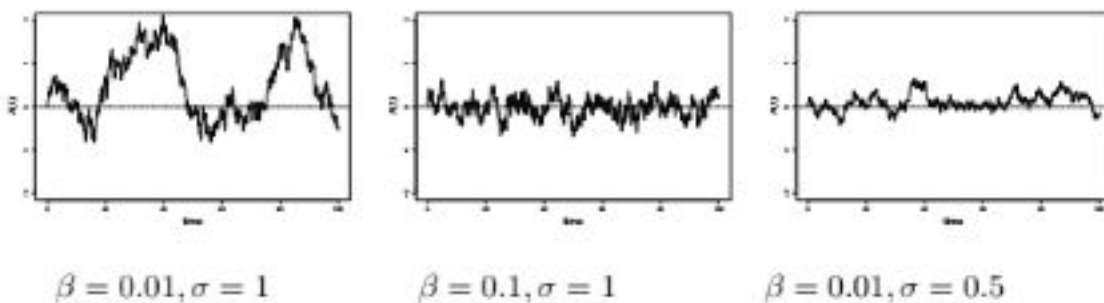
Another interesting feature for building a trading strategy is a tool for anticipating the trading volumes of the selected cryptocurrency.

We use Ornstein-Uhlenbeck model³ which is a stochastic process in order to forecast the volumes that will be traded.

$$dX_t = -\beta (X_t - \alpha)dt + \sigma dW_t$$

where $\beta > 0$, $\alpha \in \mathbb{R}$, $\sigma > 0$ and $X_0 = x_0$.

This process assumes normal distribution and for that reason we apply a logarithm over the volumes - $\log(\text{volume})$.



- β : how "strongly" the system reacts to perturbations
(the "decay-rate" or "growth-rate")
- σ^2 : the variation or the size of the noise.
- α : the asymptotic mean

Source: <http://www.math.ku.dk/~susanne/StatDiff/Overheads1b>

By using this tool, users may improve their trading algorithms according to the traded volume.

2.3 Testing the Strategy

Going hand-in-hand with the strategy builder is of course the strategy tester. Incrementally throughout the period of constructing a strategy users will be able to back-test their algorithms using reliable and extensive market data. The past data will be adjustable to accommodate minutes, hourly or daily intervals. From

³ <http://www.math.ku.dk/~susanne/StatDiff/Overheads1b>



here, the platform will be able to log entry and exit points/prices and gather key data about the efficiency of the strategy, including risk coefficients, drawdown and returns.

If the user is satisfied with their strategy they will have the chance to test it with demo money on a real market. With this option users will check how their strategies are working with real market conditions and if there exists a correlation between the past performance of the strategy and the performance on real market

If working to a high enough standard, users may want to unleash their trading strategy on live markets. The VAND platform will enable this through API's. This means that one VAND account will grant the user access to hundreds of trading pairs across several exchanges simultaneously.

Rank ↕ Name	Score ↕ Upload Date Trading System	Yearly Perf. ↕ Backtest Days ↕	Volatility ↕ Sharpe Ratio ↕ Sortino Ratio ↕
Rank: 3.79	12/30/2016 22:38 	307.25% 6806	32.19% 9.55 21.14
Rank: 3.09	04/14/2017 12:44 	11.80% 6985	3.50% 3.32 6.82
Rank: 3.04	04/11/2017 07:02 	88.26% 6966	10.60% 8.18 19.27

2.4 Share Trading Strategies or Portfolios

At VAND Capital we envision the platform as being a community feed, full of interesting and varying ideas. Within this feed users will be able to publish their back-tested trading strategies in chart form and connect with other users. This social aspect will encourage creativity and it will allow users to amass subscribers if their strategies yield a positive performance. On top of this, ideas surrounding portfolio creation and optimisation will also have their place in the community. This will give users who invest passively or even portfolio managers an opportunity to share their ideas and attract subscribers.

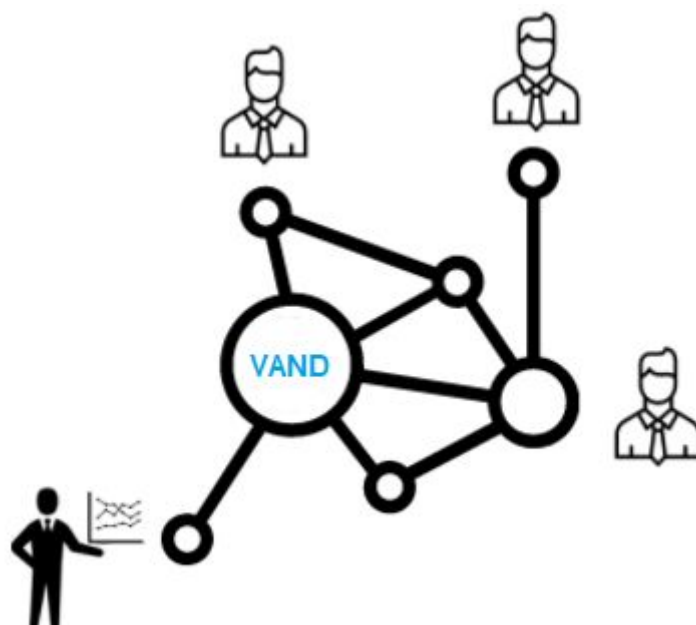


This idea feed will be a free community service whereby the biggest advantages for a simple user is the exposure to trading and investing ideas, or the chance as a publisher to gain subscribers to their ideas in the future.

2.5 Smart Contract Powered Trading Signals

A key feature of the VAND platform will be the ability of strategy creators/publishers to monetise their trading strategy through the use of live Trading Signals. Any user of the Vand platform will have the option to publish the performance of their algorithmic strategy publically. If other users within the Vand community are impressed by its performance then they will have the ability to subscribe to the strategy. By subscribing, users will receive live trading signals generated by the strategy and updates throughout the trading cycle.

Behind the scenes, Smart Contracts enforce the relationship between the strategy publisher and subscribers. Subscription involves sending the specified VAND tokens to the contract address where they will be locked until the end of the trading cycle. If the strategy yields a return, the payout to the publisher will be directly proportional to this return and be released from the contract containing the pool of subscription tokens. If the strategy fails to yield a return, tokens will be released back to the subscribers. As a result, both publisher and subscriber are protected.



2.6 Example

Let's look at an example:

1 Trading Cycle (in this case) is defined to span from Monday to Sunday.

1. **User A** has 100 **Subscribers** for their strategy called X.
2. These **subscribers** deposit Y amount of VAND tokens for 1 Trading Cycle. (User A decides how much the minimum deposit is)
3. All subscription deposits are locked in a smart contract.
4. **User A** provides **Signal 1** - Buy ETH. The signal is generated by their algorithm.
5. In addition to **Signal 1**, take-profit points and stop-losses are well-defined.
6. Subscribers receive a notification.
7. The signal of **User A** is successful and they close trade after a few hours. This generates 4% return over the initial investment. This process repeats many times throughout the week.
8. By the end of the week the algorithm of **User A** generates a 30% return.
9. **User A** receives 30% of the **subscriber's** deposits. The remaining deposits are returned to subscribers.

As a result:

- **User A** is sure that if their signals are right they will generate VAND tokens.
- Subscribers are sure that they will spend VAND tokens only if the algorithm generates a return.
- **User A** will receive 100% of deposit funds if their return exceeds 100%.
- If the return is 0% or less **User A** receives 0 tokens and generates bad publicity.

2.7 The benefits for users

Users will benefit from using the VAND platform in three major ways. Firstly, they will have the ability to build fully functional algorithmic trading strategies for the automated trading of cryptocurrencies. The intuitive and back-to-basics approach to development will save the user a lot of time and require little-to-no technical skills whatsoever. As an extension of this, the strategy tester will enable users to back-test their strategies to enable a thorough analysis of their performance. Secondly, users will be a part of a greater community of like-minded individuals and may benefit from the idea feed. Lastly, users will have the chance to monetise their strategies through trading signals and generate VAND tokens by attracting other users to subscribe to them. Ultimately, the platform will encourage huge amounts of creativity.



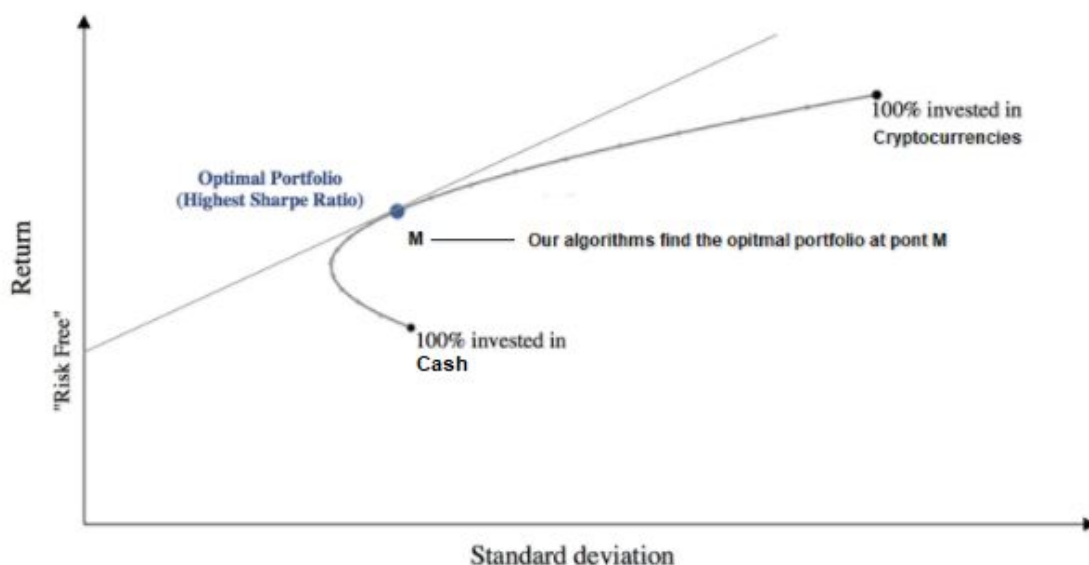
3. Portfolio Management System - Passive Investing

3.1 Why Passive Investing with a Portfolio Management System

The goal of virtually all investment analysis is to make profitable investment decisions. The first step of any contributor who wants to construct a portfolio is to select assets with up or down potential. Then the he has to find the optimal portfolio for the selected assets. According to the Modern Portfolio Theory (MPT) the optimal portfolio is the portfolio that offers to its owner the minimum possible risk and highest possible return.

The theory states that people will act rationally, always making decisions aimed at maximizing their return for their acceptable level of risk.

The next figure shows the optimal portfolio:



It can be seen that there are many possible portfolios for the selected assets. Some of them offer high return but the risk is too high. Others offer very low returns for not acceptable risk. However there is a curve called the Efficient Frontier. It consists of all portfolios that are optimal for the assets that the trader selected. And there is only one portfolio which is the optimal portfolio at point M. It offers the lowest possible risk for the highest possible return. Our algorithms find this portfolio at point M. In order to define it, the portfolio owner would decide which cryptocurrencies they want exposure to, what level of risk that they



are willing to take and the length of their investment horizon. Our algorithms handle the rest of the investment process and find the optimal balanced portfolio.

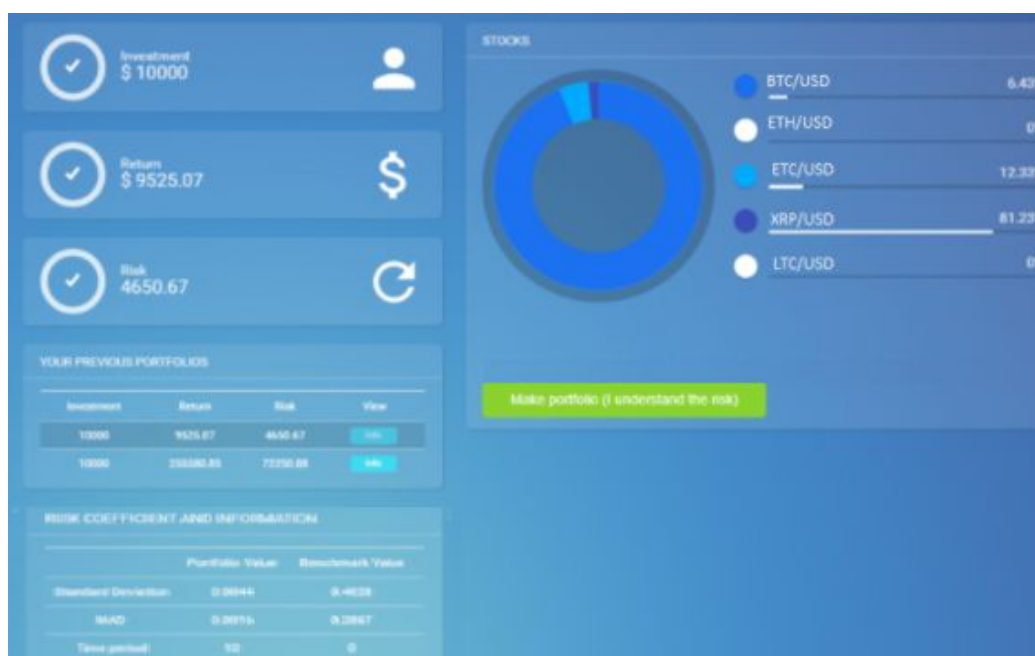
3.2 What is a Balanced Portfolio?

When a user selects cryptocurrencies for building a portfolio it would be detrimental their risk/return exposure if they invest an equal amount of money in each cryptocurrency. For example, an equally weighted portfolio (20% of the portfolio in each security) of five cryptocurrencies has an expected return of 19% and a risk of 22%. Alternatively, a portfolio with 30% in BITCOIN, 0% in WAVES, 55% in ETHEREUM and 10% in IOTA and 5% in MONERO has expected return of 30% for the same level of risk - 22%.

The trade-off between risk and return is significantly improved for the second portfolio that offers a higher return for the same level of risk.⁴

3.3 How the Portfolio Management Platform Works

The following image shows how the platform currently looks in beta stage.



⁴ We follow the methodology from the book - Investments: Principles of Portfolio and Equity Analysis, Wiley, 2011



In order to build an optimal portfolio a user has to:

- Select the amount of money that they want to invest
- Define the investment horizon of their portfolio
- Choose cryptocurrencies for their portfolio
- Define their risk preferences

Our algorithm returns:

- The expected Profit
- The potential Loss
- Comparison between the portfolio and the benchmark
- Comparison between previously created portfolio's
- Risk Coefficients
- Correlation coefficients of assets in portfolio
- Past portfolio History

3.4 Track Your Existing Portfolio

One of the missing services operating within the cryptocurrency market is a sophisticated platform where users can manage their multiple holdings across various exchanges.

If you have a portfolio of cryptocurrencies across different exchanges you need a tool to track them. We plan on implementing such a solution to our platform before the end of 2017. This means that if you have BITCOIN at exchange A, ETHEREUM at exchange B and DASH at exchange C you would have the opportunity to track how your positions are moving with a lot of risk coefficients and additional useful information.

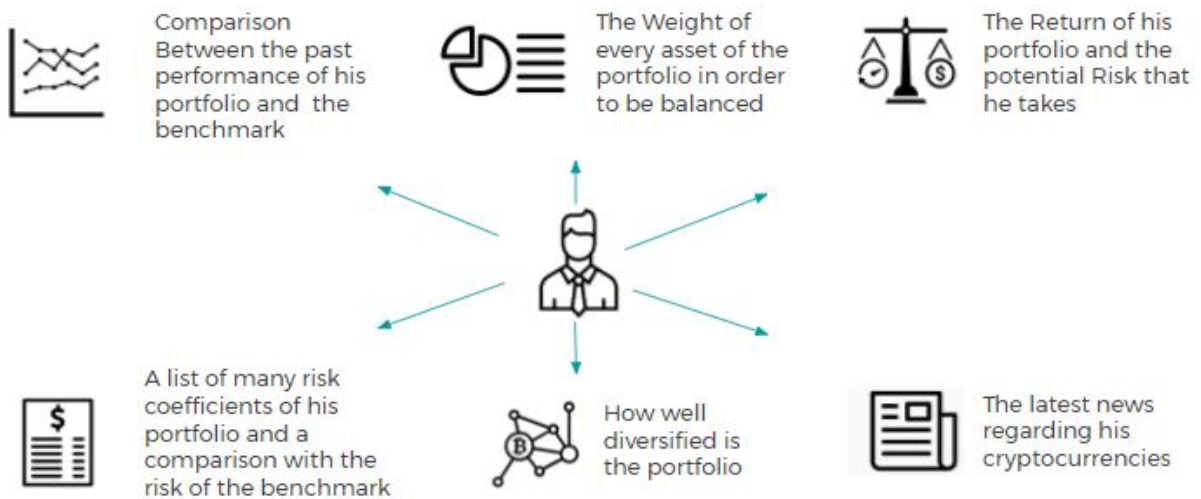
Currently, we are developing a tool to automatically extract the information about your positions from exchanges. We intend to work with the following exchanges:

- BITFINEX
- BITSTAMP
- BITTREX
- BTER
- GDAX
- KRAKEN
- POLONIEX

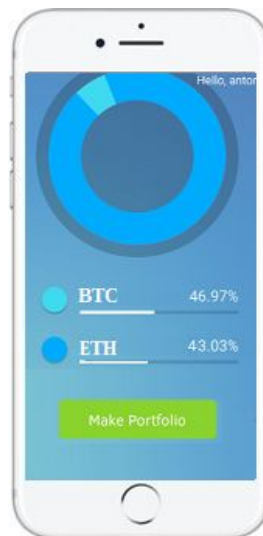


3.5 Future Development of Portfolio Management System

Another useful feature that we plan on adding before the end of 2017 is the latest news. This feature means that a user will never miss an important news event if it relates to their portfolio or positions. The diagram below shows how feature-rich the platform aims to be:



3.6 Mobile Version



The platform is optimised for mobile use. Users are able to use the full functionality of the desktop platform on their mobile devices. However, we plan on developing a professional app for iOS and Android.



4. Technology

We use the latest technological developments in order to build our two platforms and merge them together. The priority is to develop the quantitative platform. The portfolio management platform is a bonus for all crowdsale participants.

4.1 The Technology Behind the Strategy Builder

The core of the backend will be constructed using Python. However we will use .NET in order to optimise the speed, especially for subscribing to and testing the algorithms.

The interface will be implemented with C#. It will have to be dynamic and provide a lot of customisable functions and it has to be light and as fast as possible. For that reason we believe that C# is the optimal solution for this problem.

4.2 The Technology Behind Portfolio Management System

The Portfolio management system is based in the cloud. We use the Microsoft Azure where all of the code is hosted and protected.

The core of the system is built with Python and R because these are very widely used programming languages for applications requiring a huge number of calculations.

The portfolio calculations which are based on Modern Portfolio Theory are done using R.

We use Python to extract, analyse and modify the data for the cryptocurrencies.

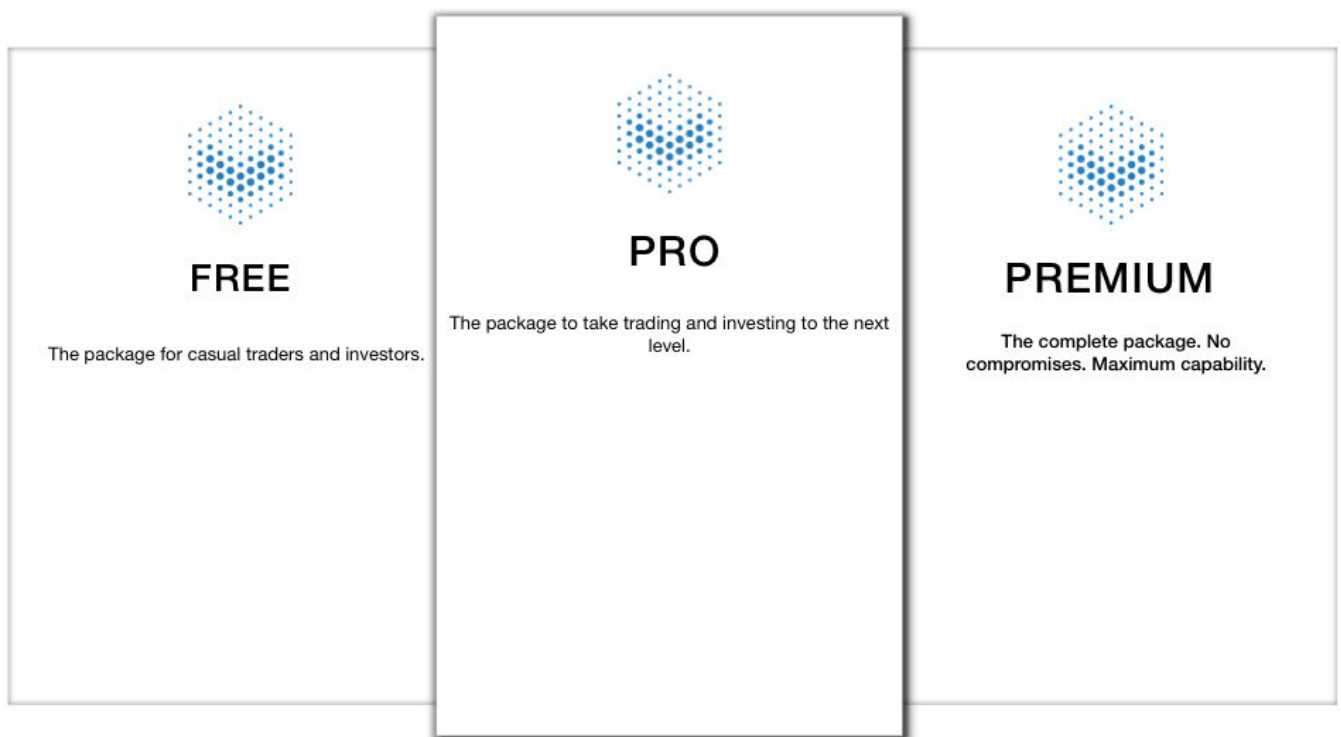
We use Keras library for the artificial intelligence part. In order to work efficiently we use various types of different tools to improve the speed of the calculations. The learning process is in real time.

The interface of the platform is done using the JavaScript framework - Angular 2.



5. Business Model

5.1 Platform Subscription Model



The above subscription packages are a taster of how the platform will be tiered in terms of user accounts. With the Free package, users will be granted the necessary amount of tools to create basic trading strategies and they will be limited to creating three strategies at any one time. API access will be restricted however users will have full access to backtesting.

With the Pro package, users will have access to more complex tools allowing them to create more sophisticated trading strategies. The upper limit on trading strategies will be increased to 10 and API access will be granted.

With the Premium package, no limitations will exist across the board. Premium users will also have full access to the models the VAND Capital team has developed backed by artificial intelligence.

The Portfolio Builder will remain a free service and will be unrestricted across all user types.



5.2 Competitive Advantages

- Unique platform for active trading and passive investing
- Opportunity to build own trading algorithm without possessing coding skills
- Portfolio Management tools
- Optimised portfolios
- Library of quantitative strategies
- Community of quantitative traders
- Risk Management tools
- Support of multiple cryptocurrencies

5.3 Roadmap

Crowdsale		Platform	
<input checked="" type="radio"/>	24/10/2017 Crowdsale Announcement	<input type="radio"/>	1/1/2018 Portfolio Platform Opens
<input checked="" type="radio"/>	27/11/2017 Pre-Sale Starts	<input type="radio"/>	15/4/2018 Demo Strategy Builder
<input type="radio"/>	10/12/2017 Pre-Sale Ends	<input type="radio"/>	15/4/2018 VAND Token Integration
<input type="radio"/>	2017 Crowdsale Starts	<input type="radio"/>	1/5/2018 Signals Providing Demo
<input type="radio"/>	2017 Crowdsale Ends	<input type="radio"/>	1/8/2018 Strategies Builder Platform

Following a successful Crowdsale the VAND Capital team aims to release the fully functional Portfolio Management Platform immediately as the New Year commences, so that contributors and users can understand the value in their support, and experience the value in the platform. In the final month of the first quarter the strategy builder will be released in the beta stage. This will give users the opportunity to feedback or relay any concerns to the VAND Capital team surrounding the platform. If we can understand fully what the user's needs are at this early stage then we can do our best to satisfy these needs in the final release of the platform. The token integration will follow along with soon after a beta version of the Trading Signals feature. We aim by the third quarter of 2018 to have a fully functioning and well-received platform which adds value to the community of users.



6. Vand Tokens

6.1 Vand Crowdsale

Vand Capital is proposing the use of a Public Crowdsale with the aim of raising the necessary funds that will guarantee the future development of the platform and the release of a few key features that are still in the development stage. The development roadmap can be seen in section 5.3 of this whitepaper.

The Crowdsale will be conducted using a Public Pre-Sale event followed then by the main Public Crowdsale. The Pre-Sale will go live in November 2017 with the launch of the VAND crowdsale website under the domain **www.vandcapital.com**. On launch, users will be able to create user accounts and participate in the Pre-Sale by sending funds to our deposit address. The VAND Crowdsale website will direct users through this process.

The Pre-Sale will run for a period of 17 days where in this period if the hard-cap is reached, deposits will no longer be accepted. In the case of the hard-cap not being reached during the Pre-Sale period, the remaining tokens that were allocated for Pre-Sale will be added to the main Public Crowdsale. The only cryptocurrency accepted during the crowdsale period will be Ethereum (ETH). This will enable us to send the appropriate amount of Vand tokens to the Ethereum address that was used to participate in the crowdsale.

During Pre-Sale, **1 ETH = 2,750 VAND**. The hard-cap will be set at **3,500 ETH** during this period. By participating in the Pre-Sale, contributors will be receiving Vand tokens at a 25% bonus over regular Crowdsale values. Three days after the Pre-Sale period has ended the Public Crowdsale will commence. During the first three days of the Crowdsale period, bonuses will be set at 15%, 10% and 5% respectively. Thereafter, **1 ETH = 2,200 VAND**. The Crowdsale will run for a full 20 days unless the hard-cap of **10,000 ETH** for this period is reached. There will be no minimum deposit amount during both the Pre-Sale and Crowdsale periods.

6.2 Vand Tokens (VAND)

Throughout the Pre-Sale and Crowdsale periods, VAND tokens will be immediately released to user's wallets once ETH has been received in the deposit address. The total supply of VAND tokens will be 76,000,000. This supply will be fixed and absolute. The benefit of using the ERC20 token standard is that the ecosystem and necessary infrastructure is already in place, and booming. Existing as a subset of the Ethereum blockchain means that our tokens will be able to

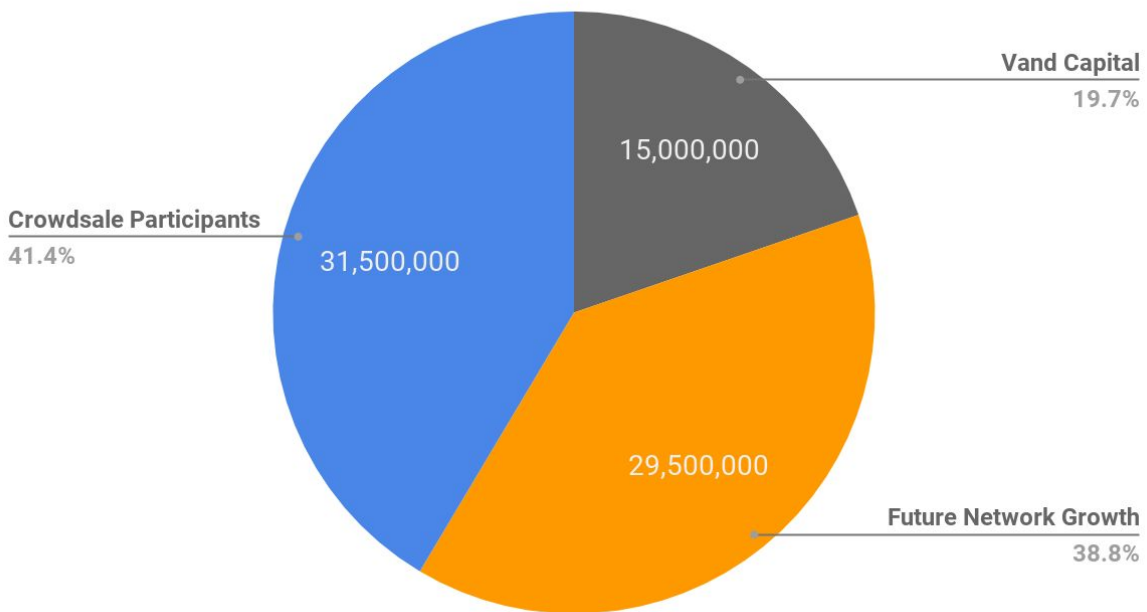


interact seamlessly with other smart contracts or Dapps. Importantly, token creation is well tested and can be trusted. As an extension of this, so to are the multiple wallets available for use with Ethereum and ERC20 tokens.

The VAND token distribution represents 100% of final token supply and is as follows:

- 19.7% of (VAND) token supply will be retained by Vand Capital
- 41.4% of (VAND) token supply will be distributed amongst Crowdsale participants
- 38.8% of (VAND) token supply will be locked for a period of 12 months and used for future network growth.

Token Distribution

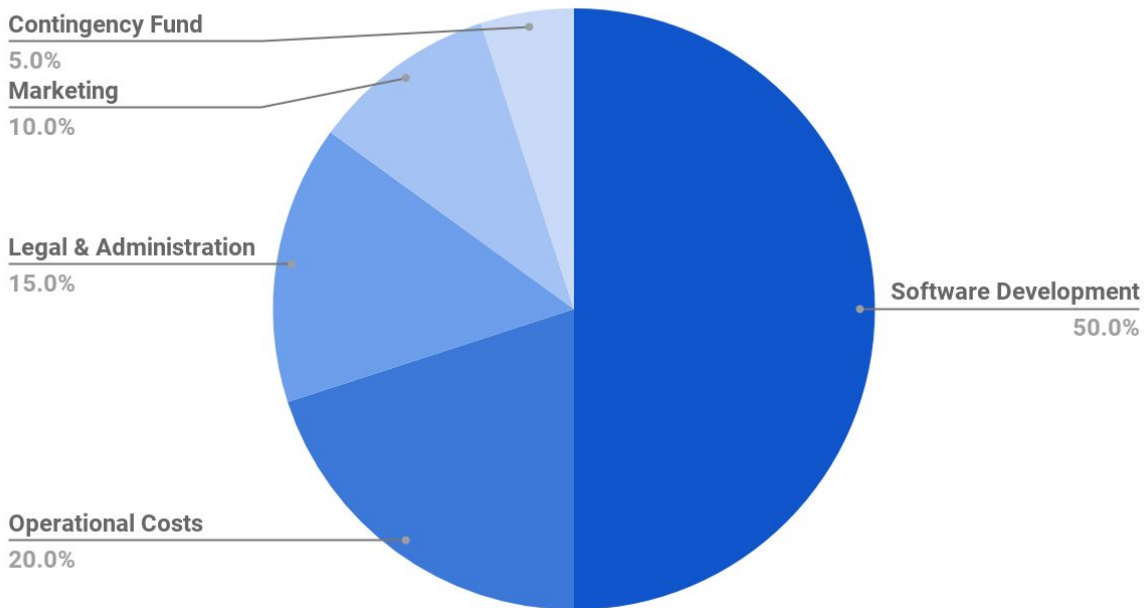


The majority public ownership emphasises that the VAND platform strives to exist as a community of like-minded individuals. We envision the distribution of tokens amongst crowdsale participants to be well-balanced and not concentrated, in line with the principles of decentralisation.

The following chart outlines the intended budget allocation of the funds raised through the public crowdsale:



Budget Allocation

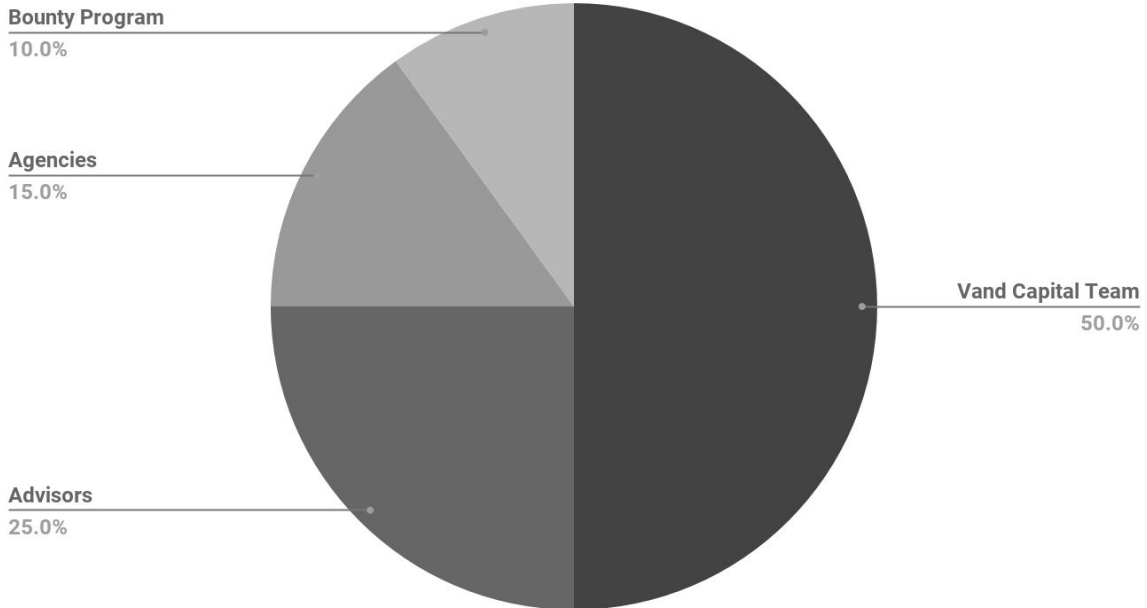


- Contingency Fund - 5% of budget reserved in case of unforeseen problem
- Marketing - 10% of budget allocated for deploying targeted marketing campaigns in order to drive traffic to the platform
- Legal & Administration - 15% of budget allocated to cover legal and regulation costs, including hiring some administration staff
- Operational Costs - 20% of budget to account for the day-to-day running of the Vand platform and Vand Capital
- Software Development - 50% of budget allocated to the current development team allowing for continuous professional development and the expansion of the team when required

The token retention by Vand Capital can be broken down into the key areas of business that which we hope capital will benefit:



Token Retention



- Vand Capital Team - 50% of the token retention will be locked in an address for the time specified below
- Development Pool - 50% of the token retention will be allocated for use in the development pool for bounty program's, agencies and advisors

We will be prohibited from using Vand Capital team member tokens for a period of one year when thereafter they will become available to the Vand Capital team at a rate of 3,000,000 tokens every six months. The Development Pool tokens will be available immediately in order to satisfy the Bounty Program participants and Advisors. Vand Capital will therefore be obligated and bound to using this capital at the rate specified and using the development pool for the sole purposes specified.



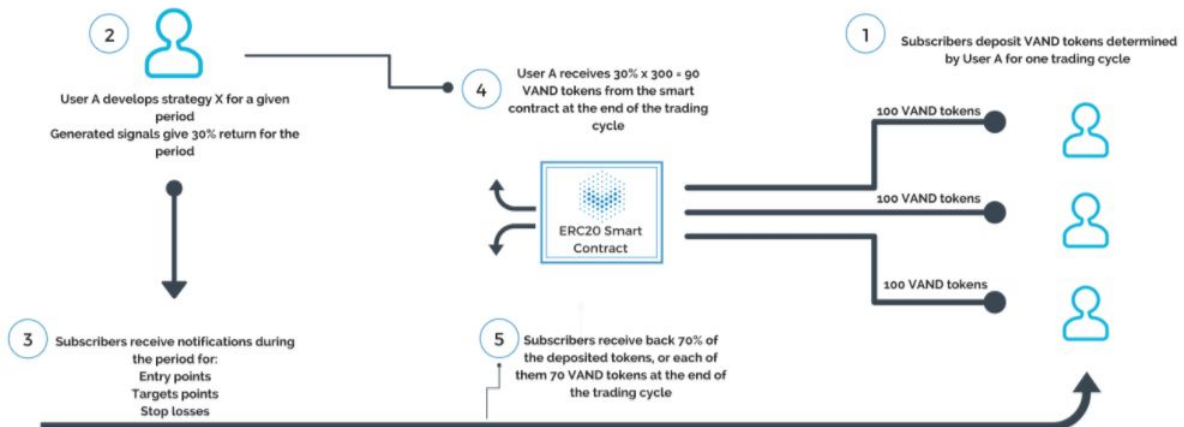
6.3 Benefits of Holding Vand Tokens from Crowdsale

The unique feature of the VAND Capital crowdsale is that all participants will have exclusive beta access to a portfolio builder platform. With it all Crowdsale participants can create a balanced portfolio of cryptocurrencies according their risk

profile and preferences. This platform is the early beta version of the full Portfolio Management Platform that we plan on releasing in the beginning of 2018. All participants who would like access to the beta platform will need to request access through the Crowdsale webpage.

Secondly, all Crowdsale participants who contribute two or more ETH will be granted one year Premium accounts which will enable unrestricted access and capabilities to the Trading Strategy Builder Platform. This will mark a huge saving on the retail subscription price.

VAND Capital believes that our Crowdsale will deliver strong value to all participants. Whether you take an active or a passive approach to trading and investing, the VAND Capital team is here to enhance your approach and ultimately your performance. Lastly, the VAND token supply is final and absolute and therefore defined scarcity exists.



7. Conclusion

The team at VAND Capital share a vision about the future of algorithmic trading on cryptocurrency markets and the building of investment portfolios composed of cryptocurrencies. Our aim is to ultimately revolutionise the way market participants engage in cryptocurrency markets through the use of a sophisticated platform, which is yet easy to use. We understand that the needs of VAND users lie in both active trading and passive investing and therefore we have proposed a platform in which these needs are both met. On top of this, we hope to create a community of innovation and like-minded individuals.

Firstly, we believe that all market participants should have access to algorithmic trading strategies regardless of programming expertise. As the market grows and expands so too will the amount of algorithmic traders. Currently, the only market participants who can harness the power of algorithms come from quantitative or programming backgrounds, or have paid for algorithms that yield unconvincing results with a lack of customisation. The VAND platform will allow users to build sophisticated trading strategies simply by moving and joining blocks to create a sequence of logic. Indicators, both traditional and custom will be available to enhance a given trading strategy. Additionally, backtesting, charting tools and live API's will be integrated into the platform so that users can test and deploy their trading strategies.

On top of this, the VAND Platform will enable users to monetise their trading strategies through the use of our trading signals feature. By publishing the performance of a trading strategy, other members of the VAND community who are impressed have the option to subscribe to the strategy for live generated trading signals and updates throughout the trading cycle. To subscribe, users must deposit the specified amount of VAND tokens into the contract address. By using Smart Contracts to handle the transaction between subscribers and strategy owner's, funds are locked, verifiable, and both parties are protected. At the end of the trading cycle, if the strategy yields a return then the payout to the strategy owner will be directly proportional to this return. If no return is made, VAND tokens will be released back to the subscribers.

For the more passive investor, our portfolio management system will allow users to optimise their portfolios in line with their risk/return expectations. Users will also be able to view existing holdings across multiple locations, learn in detail about the current risk exposure and level of diversification, and observe any recent news relating to their holdings.



The VAND team expects that if successful in fulfilling its vision the following will occur:

- The VAND Platform will serve a thriving community of like-minded individuals
- Users will be able to create sophisticated trading strategies with ease
- Users will improve their trading performance through the use of algorithmic trading strategies
- Users will monetise their trading strategies yielding an additional source of profit
- Users will profit by capitalising on trading signals
- Users will manage their investment portfolios more efficiently

