



TRADINGENE

WHITEPAPER

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INTRODUCTION

1 A number of significant challenges have inhibited the development of a trading algorithm investment product¹. These challenges include:

- the absence of opportunities for retail investors to invest in trading algorithms;
- platforms for developing algorithms are either high-cost or too basic to generate useful algorithms;
- a lack of market-based incentives for algorithm creators;
- a lack of transparency between algorithm creators and investors;
- the absence of a broad, active market for algorithms;
- a large number of “garbage” strategies and algorithms designed to defraud investors.

In short, algorithmic trading is not accessible to a wide range of investors on cryptocurrency and other markets.

TRADINGENE IS A BLOCKCHAIN-BASED AUCTION PLATFORM THAT MAKES POSSIBLE THE CREATION AND USE OF ALGORITHMS TO TRADE CRYPTOCURRENCY AND THE MOST POPULAR FINANCIAL INSTRUMENTS. TRADINGENE ADDRESSES THE AFOREMENTIONED PROBLEMS THROUGH AN ACCESSIBLE, TECHNOLOGICALLY ADVANCED, EASY-TO USE WEB PLATFORM FOR CREATING AND TESTING ALGORITHMS; ONLINE COURSES FOR ALGORITHM CREATORS; COMPETITIVE AUCTIONS FOR ALGORITHMS; AND A BLOCKCHAIN-BASED SYSTEM TO RECORD AUCTION RESULTS AND CONCLUDE SMART CONTRACTS BETWEEN ALGORITHM CREATORS AND INVESTORS.

3 Tradingene will make algorithmic trading accessible, transparent and equitable. Tradingene provides investors access to high-quality trading algorithms and provides algorithm creators with access to investors at fair prices. Tradingene expects to popularize trading algorithms as an investment product. Tradingene has already created a platform for evaluating and testing algorithms and a database of algorithms and creators.

4 A token offering is planned for March 2018 with a hard cap of \$24MM. For more detailed information and to propose customized terms for early investors, please contact us at ir@tradingene.com

¹ Investing through automated trading algorithms that buy and sell based on strategies expressed in the algorithms.

1 DECLARATION OF NON-LIABILITY

If you have any doubts as to what actions you should take, we recommend that you consult with your legal, financial, tax or other professional adviser.

The information provided below may not be exhaustive and doesn't imply any elements of a contractual relationship. Despite the fact that we make every effort to ensure the accuracy and relevance of any material in this White Paper, this material is not professional advice. Tradingene doesn't guarantee and doesn't accept legal responsibility of any nature arising from or related to the accuracy, reliability, relevance or completeness of any material contained in this Technical Description. Investors and potential owners of TNG crypto tokens should contact the relevant independent professional advisers before relying or making any commitments or transactions based on the material published in this White Paper, as this material is published for informational purposes only.

TNG crypto tokens aren't considered securities under any jurisdiction.

This White Paper is not a prospectus or a proposal, and its purpose is not to serve as a securities offer or request for investments in the form of securities within a jurisdiction.

Tradingene doesn't provide any opinions or advice regarding the acquisition, sale or other operations with TNG crypto tokens, and the fact of the provision of this White Paper doesn't form the basis or should not be relied upon in matters related to the conclusion of contracts or acceptance investment decisions.

This Technical Description doesn't oblige anyone to enter into any contracts, to take legal obligations with respect to the sale or purchase of TNG crypto tokens, and to accept any cryptocurrency or other form of payment.

2 INTRODUCTION

There are over 1,200 different cryptocurrencies in the world today. In 2017, many cryptocurrencies dramatically appreciated and aggregate capitalization of «digital money» exceeded \$200 billion by October 2017. The capitalization of Bitcoin (BTC), the most liquid cryptocurrency, exceeds \$100 billion and surpassed that of large-scale financial holdings such as Goldman Sachs (\$92.9 billion) and Morgan Stanley (\$89.1 billion)². The market has many alternatives to Bitcoin (“BTC”), many providing opportunities for returns no less interesting or promising than BTC.

It’s no surprise that these new assets and their impressive growth have triggered the emergence of cryptocurrency exchanges that have, in turn, attracted large and growing numbers of investors eager to profit from the volatile markets of cryptocurrencies. This has led to an increase in access to and liquidity on cryptocurrency markets. On November 1, 2017, for example, BTC’s daily trading volume exceeded \$2.6 billion. New, ambitious cryptocurrencies continue to emerge, adding to the optimism of cryptocurrency traders.

MANY LARGE FUNDS, INSTITUTIONAL INVESTORS, AND EXPERIENCED TRADERS USE ALGORITHMIC TRADING (INVESTING THROUGH TRADING ALGORITHMS THAT BUY AND SELL AUTOMATICALLY BASED ON STRATEGIES EXPRESSED IN THE ALGORITHMS). THIS FORM OF TRADING HAS A NUMBER OF SIGNIFICANT ADVANTAGES OVER MANUAL TRADING AND PROVIDES HIGH RETURNS WHICH ARE NOT PRESENTLY ACCESSIBLE TO THE PUBLIC, NOT ONLY ON CRYPTOCURRENCY MARKETS, BUT ALSO ON TRADITIONAL MARKETS.

Two questions naturally flow from this: (i) can investments through trading algorithms in cryptocurrency and other popular financial instrument be made available to a wide range of people? and (ii) why hasn’t anyone done this? This White Paper presents the details of Tradingene. We will explain why the answer to the first question is an unambiguous “yes”. And we will explain the existing problems facing those who wish to invest in trading algorithms on both traditional and cryptocurrency markets. We will also present our vision of the solution to these problems and explain the advantages of our platform for both algorithm creators and investors.

² <https://www.cnbc.com/2017/10/13/bitcoin-market-cap-bigger-than-goldman-sachs-and-morgan-stanley.html>

3 ADVANTAGES OF ALGORITHMIC TRADING AND PROBLEMS IN THE CURRENT MARKET

More than ninety percent of traders lose money. Many would say that the reason for this is markets' efficiency and any actions other than investment in a market portfolio will not result in above-market returns. But this is not the case, since a small percentage of traders regularly generate above-market returns.

There are many reasons traders generate losses, including these three most common reasons:

KNOWLEDGE



Successful people with little experience in financial markets often believe they can trade without any prior training. All that stands between them and a catastrophe are brokers looking to make a quick buck and a single click of the mouse. And these are not, obviously, the best protection.

MARKET ANALYSIS TOOLS



The huge variety of trading platforms and tools, offered without training and advice, causes frustration, ultimately resulting in a failure to use the most important capabilities of trading platforms. Traders often fail to create, test, optimize and run automated trading strategies. Switching to manual trading exposes them to the third and most devastating factor.

EMOTIONS



This is the indisputable favorite, a real serial killer of both newcomers and experienced market veterans. This was the cause of Black Monday in 1987 and the flash crash of 2010. Any failure to focus jeopardizes a trader's chances of success, and it is generally a matter of time before a trader encounters a situation that erases previous gains. Fear, arrogance, greed, pride and excitement are a few of the traps even the smartest traders fall into.

Is there any way to eliminate these? Yes! The answer lies in algorithmic trading. When traders develop trading algorithms, they study (for without market knowledge a successful algorithm cannot be built); they familiarize themselves with the tools available to traders and how these tools can aid in trading; and, most importantly, traders eliminate emotions from trading process: an algorithm doesn't rush to buy on a tip or panic after a series of loss-making trades. An algorithm is also not prey to euphoria after a profitable trade. To an algorithm, the only thing that matters is the strategy developed by its creator, to which the algorithm must strictly adhere. These are not the only advantages of algorithmic trading.

Additional advantages of algorithmic trading:

UNINTER-
RUPTED
TRADING



Many markets trade around the clock and cryptocurrencies are even traded on weekends. Unlike a human, a trading algorithm trades 24/7 without losing focus or growing tired.

ACCURACY



The algorithm doesn't confuse «buy» and «sell» buttons, doesn't forget its strategy in search of a quick win and doesn't accidentally add zeroes to an order (no fat fingers).

DECISION-
MAKING
SPEED



An algorithm reacts to signals far more quickly than a person. During volatile periods and crises this may be a key factor in preserving capital and generating positive returns.

FLEXIBILITY



Modern strategies based on machine learning and neural networks easily adapt to constantly changing market conditions.

PORTFOLIO OF
ALGORITHMS



Like any other investment product, algorithmic trading can be based on a portfolio of algorithms, providing the benefits of diversification and offering unique risk-return combinations.

Ed Seykota³ and Perry Kaufman⁴ are prime examples of successful investors who use trading algorithms. Furthermore, hedge funds, such as Bridgewater, Citadel and Two Sigma Investments use trading algorithms and are amongst the most profitable funds globally.⁵

Despite the advantages of algorithmic trading, the increasing liquidity and capitalization of digital currencies, and the high technical competence of cryptocurrency market participants, algorithmic trading hasn't yet taken over cryptocurrency investors or markets. The emerging cryptocurrency market has numerous imperfections that have prevented algorithm creators and investors from interacting successfully. Those imperfections include the absence of standardized APIs and high transaction costs. Also, algorithm creators do not have access to high-tech environments for developing and testing strategies nor do they have effective mechanisms for fund-raising. And investors lack access to investible trading algorithms. Our project aims to solve these challenges.

³ https://en.wikipedia.org/wiki/Ed_Seykota

⁴ <http://perrykaufman.com/bio/>

⁵ <https://www.forbes.com/sites/nathanvardi/2017/02/01/quants-start-to-take-over-list-of-most-successful-hedge-funds/#5feeba355e00>

4 ABOUT THE PROJECT

4.1. Origin of the project

We are traders. Many members of our team have been trading for years, experiencing ups and downs, euphoria and disappointment. We have adhered to different strategies and methods, but to one dream: to abandon manual trading in favor of algorithmic trading. **In the pursuit of our dream we encountered one fundamental problem – retail investors do not have affordable access to investible trading algorithms.** That's why in 2014 we decided to develop our own product - the Tradingene platform.

TRADINGENE IS A BLOCKCHAIN-BASED PLATFORM DESIGN TO BRING ALGORITHM CREATORS AND INVESTORS TOGETHER ON AN AUCTION-BASED MARKETPLACE AND TO SATISFY INVESTORS' AND CREATORS' KEY REQUIREMENTS. OUR GOALS ARE: (I) TO PROVIDE QUALITY OPPORTUNITIES TO RETAIL INVESTORS WHO WISH TO INVEST USING TRADING ALGORITHMS; (II) TO PROVIDE ALGORITHM CREATORS WITH OPPORTUNITIES TO DEVELOP, TEST AND SELL TRADING ALGORITHMS; AND (III) TO CREATE THE CONDITIONS FOR MAXIMALLY EFFICIENT, TRANSPARENT AND PROFITABLE INVESTMENT IN TRADING ALGORITHMS.

4.2. Project achievements

Our team has achieved remarkable results in our three years of product development. We have attracted more than 300 algorithm creators from leading global universities, mathematicians and programmers experienced in creating trading strategies, and actively collaborated with them in developing our product. To date, over 2,000 algorithms have been developed and tested on our platform.

Tradingene is ready for use by algorithm creators. In the coming years, we will grow and improve our trading platform and perfect its capabilities for optimizing trading strategies.

We have developed an AI-driven system that evaluates and rates algorithms, which will simplify the selection of appropriate algorithms by investors. Algorithm creators are provided assistance in determining appropriate success fees, allowing them to attract capital at an optimal price.

Furthermore, Tradingene has developed a unique online course "Exchange Trading using Machine Learning." The course teaches any user with advanced skills in mathematics, statistics, programming or other applied sciences how to create trading algorithms using various exchange instruments, even if the user lacks meaningful experience in financial markets. Over 300 creators have completed the course.

The Tradingene platform is based on the most up-to-date and secure protocols, which provides for efficient data exchange between trading algorithms and platform users in real time.

4.3. The time for investing in crypto has ended, it's time to trade!

Cryptocurrencies attract more and more buyers every day. At the same time, the market may soon reach the point where trading cryptocurrencies, given their high volatility, will be more profitable than investing. This trend is already clear over short intervals. Given increasing liquidity, diminishing spreads and reduced transaction costs, we expect to see substantially more trading activity in the near future.

4.4. Project Plans

Tradingene is pursuing the ambitious goal of creating an active marketplace for trading algorithms. As our platform develops and improves, we will bring to the market significant innovations:

- Access to investing in trading algorithms for retail investors.
- Access to algorithmic trading on the cryptocurrency market.
- Free access to an advanced web environment for development and testing of trading algorithms.
- The opportunity to attract investors directly to trading algorithms.
- A transparent marketplace that uses blockchain technology and provides the ability to attract capital at prices determined at auction.
- Popularization of trading algorithms as a popular investment product.
- Creating and supporting a large community of algorithm creators and investors on the Tradingene platform.

5 PLATFORM

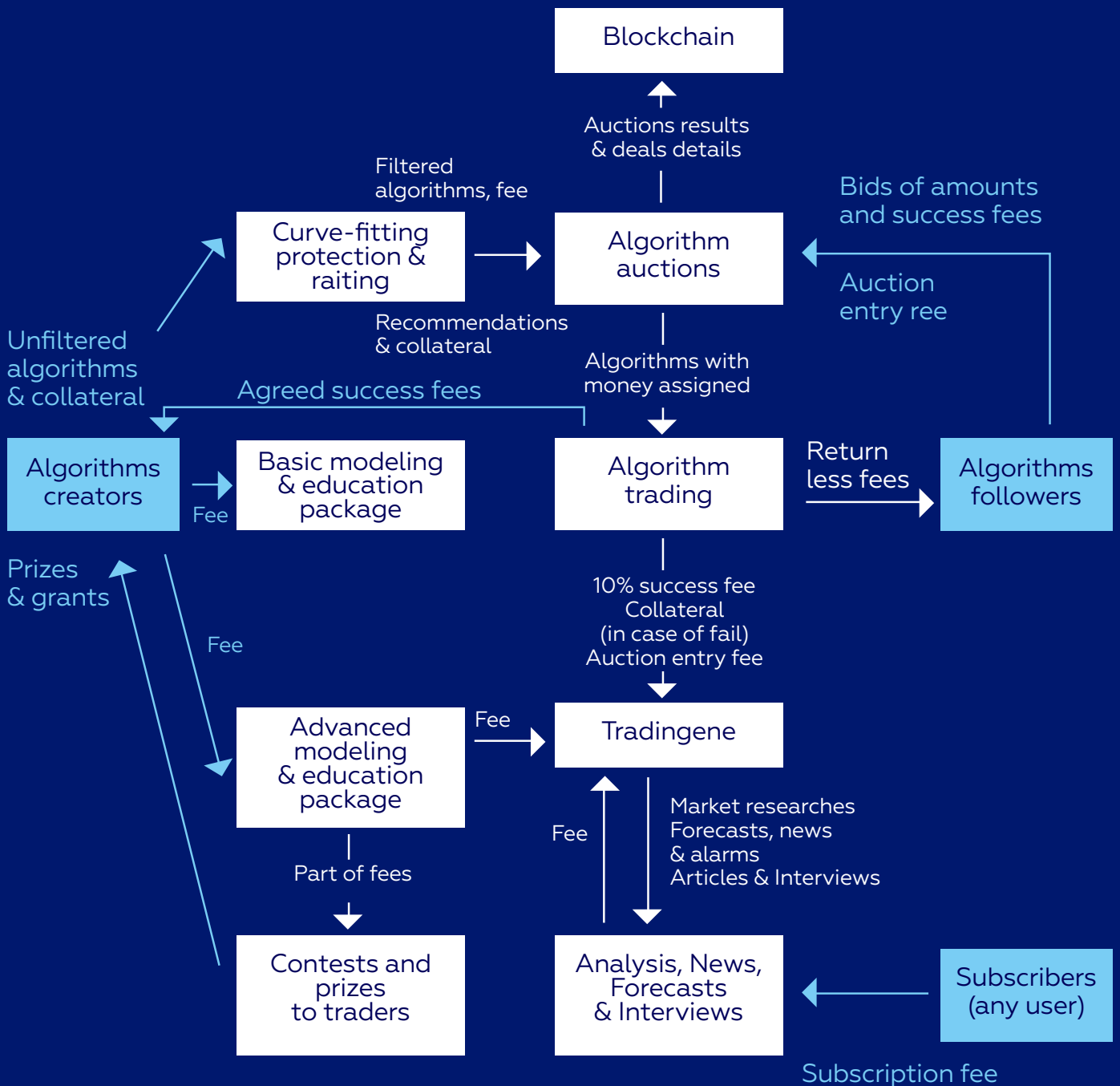
5.1. Business Model

TRADINGENE'S MISSION IS TO UNITE ALGORITHM CREATORS AND INVESTORS ON OUR PROPRIETARY MARKETPLACE. THE MARKETPLACE WILL ALLOW INVESTORS TO INVEST USING TRADING ALGORITHMS, AND ALGORITHM CREATORS WILL BE ABLE TO TEST THEIR STRATEGIES AND TO RAISE CAPITAL. THUS, TRADINGENE WILL REDUCE TRANSACTION COSTS, ENSURE MORE EFFICIENT DEPLOYMENT AND USE OF CAPITAL, AND PROMOTE TRADING ALGORITHMS AS AN INVESTMENT PRODUCT.

The business model: the platform provides algorithm creators with an opportunity to develop and test their strategies using an AI-based, user-friendly interface. Once developed and tested, approved algorithms will be put up for an auction where investors choose the most appropriate algorithm (or portfolio of algorithms) based on their risk-return profile. All investor trades are generated by algorithms and made on investors' brokerage or exchange accounts. Investors will pay a success fee to the algorithm creator and platform if positive returns are generated.

Tradingene will generate income in success fees from profitable algorithms, from auction participation fees, and from subscription charges for advanced modeling packages provided to creators. We will also sell analysis and market reviews to investors.

The business model fits into the current trend of economic Uberisation. The marketplace of trading algorithms will connect key market participants in algorithmic trading – algorithm creators and investors – eliminating processes and intermediaries that do not add value to the product.



– Tradingene platform

5.2. Services for Platform Participants

The Tradingene platform provides algorithm creators with access to both a basic modeling package and an advanced modeling package, the latter of which optimizes the development process.

Services available to algorithm creators:



Basic modeling package (free of charge)

- A basic set of modeling tools using programming languages Lua and Python (sufficient for fundamental development);
- Access to historical data;
- Online training based on the company's proprietary materials and courses;
- Stipends and incentive programs.



Advanced modeling package

- Unlimited access to algorithmic modeling tools and CPU time;
- Access to non-market data;
- Capacity for highly complex calculations;
- Advanced analytical options;
- Webinars;
- Participation in auctions.

Services available to investors

- Participation in auctions of algorithms tested by the platform and connection of purchased algorithms to an investor's trading or brokerage account;
- Subscriptions for newsletters and market analysis. Subscription options include requests for forecasts relating to specific financial instruments; forecasts generated by Tradingene's machine learning systems; and market infographics. Investors will also be able to receive some signals and alerts from algorithms (without direct connection to their trading or brokerage account).

All Tradingene marketplace participants can participate in algorithm auctions as follows:

An algorithm creator puts an algorithm up for auction, placing a deposit which is non-refundable if the strategy turns out to be unprofitable at the end of its minimum investment period (this period is specified by the creator and could be, for example, three months). Investors participate in closed auctions, making bids for algorithms that interest them (bids include the size of the proposed investment and the terms of the success fee, all of which is entered onto the blockchain in real-time). The platform evaluates all bids and identifies auction winners. The terms between the investor and the algorithm creator are then fixed in a smart contract, making the terms unalterable and uncensorable. Following the end of the auction all bids are disclosed (maintaining the anonymity of the bidders) to other participants to ensure transparency.

5.3. Functionality

Tradingene is a multifunctional platform that provides the ability to develop trading algorithms from scratch, auction algorithms and transmit trading signals.

The following is a list of existing and pending platform features :

1. Algorithm programming in a web environment with programming libraries containing fundamental functions and methods;
2. Algorithm testing for cryptocurrencies or financial instruments on a set time interval (as small as one minute) on the platform server;
3. Optimization of algorithmic parameters for cryptocurrencies or financial instruments on a set time interval on the platform server;
4. Yield curve and trade chart generation;
5. Result and data download in csv format for further analysis;
6. Generation of advanced algorithm analysis including:
 - 6.1. Maximum favorable / adverse excursion;
 - 6.2. Dates and times of best trades;
 - 6.3. Analysis of trade sequences, their structure and distribution;
 - 6.4. Analysis of trades over time, etc.
7. An algorithm assembler;
8. Filtering of algorithm creators by investors by key parameters: time on the platform, number of successful algorithms, amount of funds raised, etc.;
9. Filtering of auctions using algorithms' key parameters: financial instrument, projected profitability, risks, Sharpe ratio, strategy type, number of trades per day, etc.;
10. Algorithmic portfolio assembly, using algorithms already purchased and open auctions;
11. Pooling of retail investor funds for collective investment (for those investing less than ten thousand dollars);
12. Record of algorithm purchase and history of returns;
13. Educational courses on algorithmic trading;
14. Market research for faster and more efficient work by algorithm creators and easier selection of algorithms by investors.

The platform's capabilities will not be limited to this list and will be constantly updated and improved.

5. 4. Token. Economic Model.

The platform token TNG is used as follows:

- Payment of fees for platform services;
- Assignment of VIP status (VIP status is assigned to an ICO investor if he or she invests and holds tokens equivalent to \$30k; VIP status provides access to various platform services for free or at a significant discount).

All platform service prices are set in fiat currency. Any charges are calculated based on current token exchange rate.

The total number of tokens is limited.

Fluctuations in the token's value will not affect platform users as service charges will be linked to current crypto/fiat currency-to-token exchange rates. Tradingene will permit payments to creators' success fees in crypto or fiat currencies.

Tradingene reserves the right to sell only part of the token issue during ICO and to retain the share for later sale. Tradingene reserves the right to buy some tokens out of the market using ICO returns.

Platform service charges shall be paid in tokens only. Given the limited emission of tokens, token appreciation will depend on the size of the marketplace and the returns of algorithms. Tradingene is focused on increasing the number and effectiveness of algorithms on the marketplace. In addition, token supply will be further limited by big ICO investors' desire to retain their VIP-status.

5. 5. Benefits for Algorithm Creators

Tradingene enables algorithm creators to focus on their primary task – developing and testing trading strategies. They don't need to think about exchange connections, data retrieval or sending trade orders – these are all taken care of by Tradingene.

Tradingene is designed to provide access to capital. Algorithm creators will not have to search for investors willing to invest in their algorithms. Furthermore, algorithm creators are completely free from market risks: their main investments are the time and intellectual effort spent to develop and debug their algorithms.

Tradingene ensures marketplace transparency. Algorithm creators get an honest assessment of their work. Provided a strategy is successful and profitable, an algorithm creator will be rewarded with a success fee. Algorithm creators can clearly track the amounts traded with their strategy and the profit earned by it.

The platform provides a user-friendly interface and simple tools for algorithm development using the Lua and Python programming languages. In addition, the Tradingene library of indicators contains the most popular and efficient methodologies and will continue to expand.

Algorithm creators can also team up to develop algorithms on our platform. Do you have great programming skills but lack trading ideas? Collaborate with a person with deep market understanding, a wealth of trading ideas and no programming skills. The reverse is also possible: if you have trading experience and have strategies you wish to automate, but lack programming skills, you can find a programming partner on the platform. Create your strategies in collaboration based on full transparency (the platform will provide smart contracts among algorithm creators to ensure trust amongst team members).

5. 6. Advantages for Investors

Investors will have the opportunity to choose and invest in trading algorithms which best match their risk-return profile. Before being put up for an auction, algorithms are evaluated by our AI-based platform with out-of-sample testing which considerably reduces the risk of curve-fitting.

Transactions take place exclusively on investors' brokerage or exchange accounts, providing security and reliability for all trades.

Potential misunderstandings between investors and algorithm creators are minimized by the system's transparency: all financial agreements, investment amounts and fees are fixed on the blockchain and protected from alteration, fraud, and deletion.

The platform already contains a substantial number of trading strategies for different financial instruments (including cryptocurrency). The system evaluates and rates each strategy. All ratings are calculated using a formula disclosed to Tradingene users.

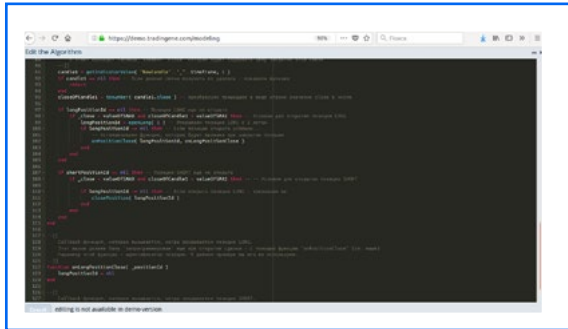
Tradingene plans to offer additional features to make the investment process even easier and more profitable. These features will include regularly distributed analyses of financial markets and specific financial instruments.

Machine learning and Neural Networks are used to substantially improve the platform's flexibility, allowing for constant improvements in decision-making and adaptation to changing market circumstances.

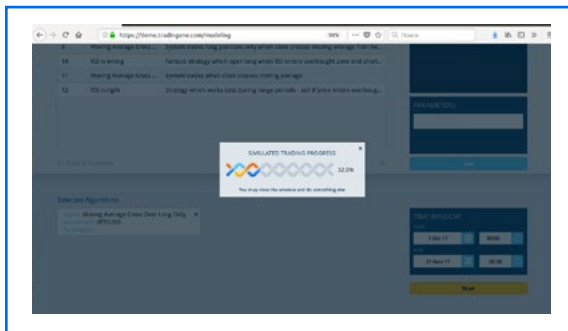
5.7. The Test Engine

The Tradingene platform's test engine differentiates it from its competitors, enabling users to evaluate and use numerous functions and capabilities. On Tradingene.com's website potential creators can use the demo version to view an algorithm creator's profile, which in turn provides access to the following interfaces:

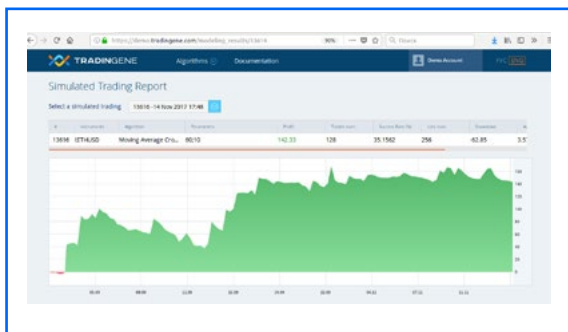
ALGORITHM DEVELOPMENT USING LUA AND PYTHON PROGRAMMING LANGUAGES



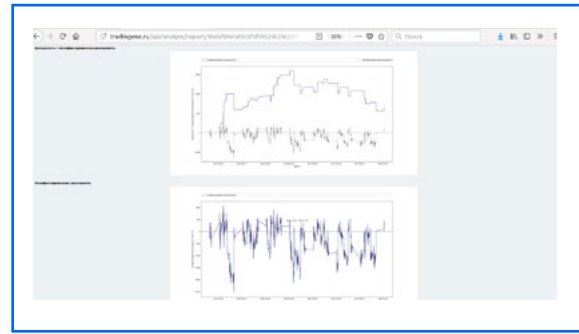
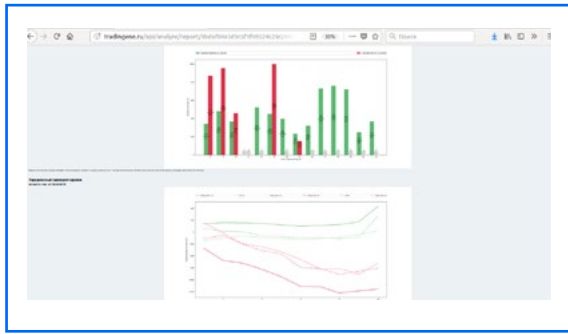
ALGORITHM MODELING BASED ON HISTORICAL AND ACTUAL DATA



MODELING RESULTS



○ ADVANCED ANALYTICS MODELING



○ DOWNLOAD OF TRADES AS A CSV FILE

○ DOCUMENTS AND API

5. 8. Online Educational Courses

For people without experience in creating algorithms and for those who want to take a closer look at algorithmic trading, we created our “Quantitative Researcher” course. After taking the course, anyone can try on the role of algorithm creator. If their algorithms prove to be successful, they can offer them to Tradingene marketplace participants and generate income from investors. In the framework of the online course, we explain the basic principles of exchanges, describe the trading of cryptocurrencies, shares, and other financial instruments, and relate which algorithmic trading opportunities exist in current markets (including crypto markets). During the course, we provide technical support and answer any questions that arise. Upon completion of the course, participants may take a qualification test. Users who pass the course receive a certificate confirming their knowledge.

5. 9. Machine Learning and Its Advantages

Machine Learning is one of the areas of artificial intelligence which explores ways to create self-learning algorithms. Such systems analyze data provided to them, identify patterns, generalize data and create rules that enable them to solve problems. There are different approaches to Machine Learning. For instance, neural networks can simulate our nervous system and consider previous experiences, making fewer mistakes over time. The majority of Internet users employ machine learning on a daily basis: GPS maps, music recommendations, Google’s contextual advertising, and news notifications represent a small sample of current products and services based on Machine Learning.

On Tradingene's platform Machine Learning provides a number of advantages to users:

- The ability to develop sophisticated mathematical models that serve as the basis for adaptive trading algorithms;
- Evaluation of algorithm quality, profitability and ranking on the basis of financial modeling over historical periods and periods of actual trading;
- Algorithm recommendations based on investor profiles. The system bases recommendations on an investor's age, risk appetite, return expectations, frequency of platform use, geographic location and financial instruments of interest.
- Algorithm recommendations based on an investor's current Tradingene algorithms, including recommendations for a portfolio of algorithms to help improve investor returns and optimize risk-return.

5.10. Technical Implementation

In order to facilitate the development of algorithms, we have created a collection of libraries and tools, some of which are publicly available. The collection includes:

- A toolkit allowing creators to program trading algorithms in Lua and Python and to simulate algorithmic trading using historical and real-time data, generating statistical data, data visualization and projected returns.
- Taft, Python's technical analysis, research and simulation framework for algorithmic traders (<https://pypi.python.org/pypi/taft>).
- The Python-library Tnn (<https://pypi.python.org/pypi/tnn>), for algorithm trading using neural networks. Tnn uses a toolkit enabling prior data processing with Taft, creation of neural networks with set and random settings, training networks with different optimization techniques (Gradient Descent, Adam etc.), data preservation and visualization. This library was created using the TensorFlow framework.

All of this will allow algorithm creators to easily develop and test trading strategies.

The fundamental elements of our blockchain-based service will be the ability to trade using algorithms purchased at auction in our market place and the conclusion of a smart contracts between creators and investors relating to acquired algorithms.

Auctions work as follows:

A creator uploads an algorithm to the platform and sets a limit for funds to be traded using the algorithm.

Investors bid in a closed auction (bids include an investment amount and a proposed success fee). Bids are entered onto the blockchain, in such a way that the number of bids is shown, while details of each bid are hidden.

The platform evaluates the bids and identifies the winners.

Following the auction the encryption keys are disclosed to all auction participants, allowing them to check the winning bid's parameters, thus excluding any doubts in transparency of the auction process. Bidders' identities remain anonymous.

Winning investors and the algorithm creator enter into a smart contract. The following data is encrypted on the blockchain:

- the selected algorithm;
- the investment amount;
- the success fee to be paid to the algorithm's creator;
- terms governing investor exit from the algorithm.

The smart contract, once entered onto the blockchain, is not subject to termination or alteration without agreement between the parties: trades will proceed using the selected algorithm. As a result, the system ensures that both the algorithm creator and the investor trades that transparently reflect the algorithm's signals. The system will also record a creator's track record.

Algorithm creators will earn profit based on the performance of their algorithms, and investors will know that their fees reflect the results of the algorithms they purchased.

Blockchain technology guarantees transparency and immutability.

For algorithm testing we plan to use the EOS and GOLEM distributing networks, thus ensuring scalability with respect to both the number of algorithms and modeling. In addition, we plan to use Filecoin and Storj for distributed storage of algorithms.

6 ECOSYSTEM ANALYSIS

6.1. Market history (a.k.a. where are we?)

Exchange trading originated in ancient Japan and, as with most human activity, evolved significantly over several thousands of years. We have moved from drawing price fluctuations on paper and yelling in exchange pits to neural networks, machine learning and fully automated exchanges. And during the last few decades, the financial industry has changed beyond recognition.

Why did these changes occur? All are based on investors' desire to maximize returns. All investors want to lower transaction costs, use better analytical tools and, most importantly, to remove their emotions while retaining their intuition and experience in trading algorithms.

Where are today's financial markets? Today everyone has access to global markets and uses modern technology to develop sophisticated trading algorithms. For talented traders, attracting capital remains a major challenge.

And where is the cryptomarket? Cryptocurrency exchanges are decentralized (that's like the 1980s), transaction costs are high, trading is mostly manual (that's like the 2000s) and cryptocurrency analytical tools have kept pace with other markets (since this is easy to implement). For crypto traders, attracting capital is all but impossible today.

6.2. Competitive analysis and addressing the market's problems

**Why do we believe there is space for another platform in the market?
(a.k.a. what is wrong with existing platforms?)**

As noted above, the market today has achieved stunning results in the development of trading strategies (even on cryptocurrency markets). Just about anyone can create a trading algorithm, even in the absence of programming abilities. A neural network is a bit harder to develop, but it is possible.

Then what's the problem?

THE PROBLEM IS THE ABSENCE OF OPPORTUNITIES FOR RETAIL INVESTORS TO INVEST IN TRADING ALGORITHMS FOR CRYPTOCURRENCIES AND OTHER POPULAR FINANCIAL INSTRUMENTS. MOST OF THE CAPITAL INVESTED IN ALGORITHMS IS THAT OF LARGE INSTITUTIONAL INVESTORS AND FUNDS. THE FEW EXISTING PLAYERS OFFERING TRADING ALGORITHMS TO INVESTORS HAVE ONE OR MORE OF THE FOLLOWING PROBLEMS AFFECTING BOTH INVESTORS AND CREATORS.

Problem 1

Sophisticated trading terminals do not provide access to investors

The vast majority of trading terminals are designed by brokers seeking to attract clients and generate trades. They focus on developing a good platform for traders rather than creating a mechanism for fundraising.

Problem 2

Platforms which provide the opportunity to invest in trading algorithms have either poor signals transmission or weak analytical frameworks

Platforms which offer investment opportunities either use a third-party trading platform or develop their own platform. In the first case, frequent failures in signal transmission are common. An investor may therefore open or close a trade much later than the algorithm proposes. Sometimes signals are lost completely. In the second case, platforms rarely have signal transmission issues, but they usually don't provide algorithm creators with a high-end environment for strategy development and modeling. As a result, algorithm development becomes a headache, considerably slowing down the development process and, occasionally, forcing potentially successful algorithm creators to leave the platform.

Problem 3

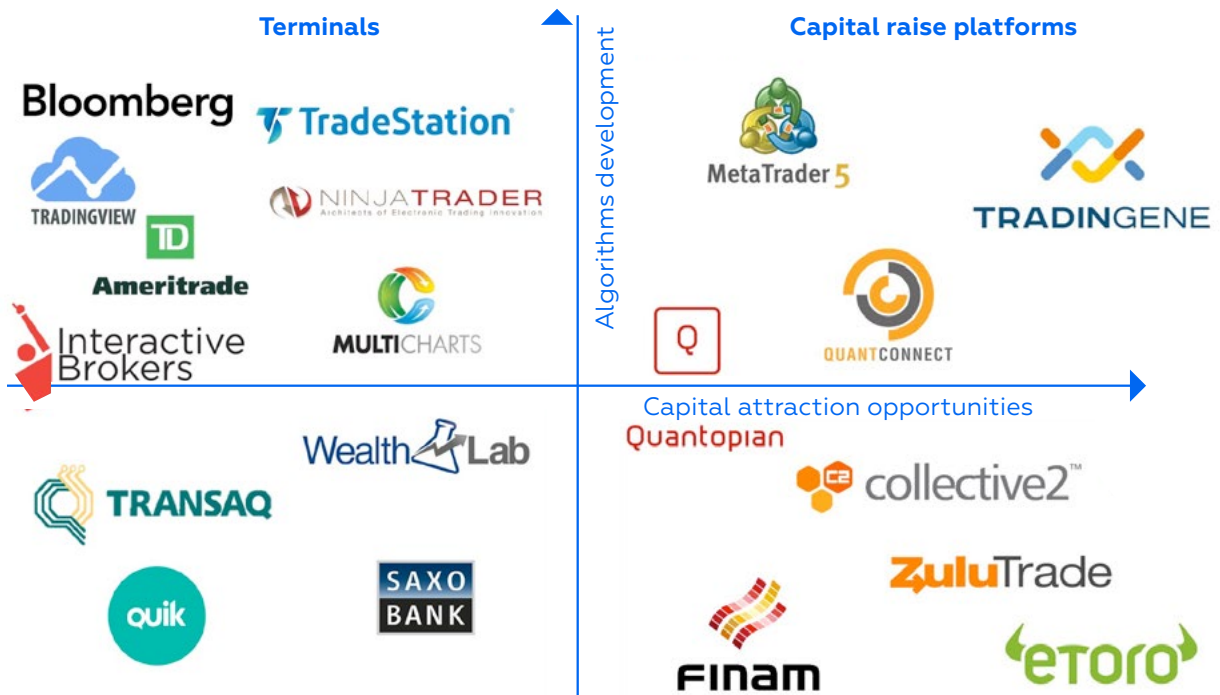
Sophisticated platforms which offer investment opportunities are expensive

There are several platforms in the market that have implemented an adequate environment for algorithm development. Their problem is pricing, at times reaching nearly \$300 per month. This price intimidates inexperienced algorithm creators as they pay to help others make money, since these platforms have transparency issues.

Solutions 1-3

Tradingene offers one solution to all three problems. We provide free access to a comprehensive development environment, built by an experienced team and implemented on our own platform. As a result, we offer:

- 1.** An advanced environment providing the ability to create trading algorithms quickly and efficiently. Moreover, we not only provide a comfortable platform, we assist creators in developing effective trading algorithms. Our database has a large number of strategies that can be used to analyze the structure of markets and as templates or starting points for algorithm creation. We also realize that success for our algorithm creators is inseparable from our own success, so we are constantly educating our creators.
- 2.** Our platform is web-based, precluding signal transmission failures or software problems.
- 3.** All essential tools are available free of charge. Algorithm creators can develop decent trading strategies using Tradingene. If algorithm creators want to conduct deeper strategy analysis, they can buy advanced modeling packages for a small fee (one substantially lower than our competitors').



Problem 4

All platforms have transparency issues

As stated above, algorithm creators refuse to pay for expensive platforms, since these platforms lack clear, transparent paths to income. Platforms that invest their own funds have unrealistic expectations for algorithms, while other platforms which serve as intermediaries don't review algorithms. This leads to serious issues, which are exacerbated by improper incentive systems.

Solutions 4

Our platform ensures transparency through the auction process and the use of smart contracts. Auctions guarantee the best terms for creators, while smart contracts capture and control the agreement between an algorithm creator and an investor.

That said, we do not judge algorithms. We do not demand a Sharpe ratio at the level of 3 or 4, nor do we require failure rates of 5%: investors decide which algorithms meet their risk appetite.

Problem 5

Demotivational fee structures – platforms exploit either algorithm creators or investors

All platforms live off of algorithm creators or investors (and sometimes both). Platforms often charge a monthly subscription to transmit trading signals. Such fees are not related to the quantity of investment an investor makes. Whether a million dollars or a thousand, an algorithm creator generates between 100 and 300 dollars per subscription. An alternative structure includes a fee for each transaction. Those mechanisms of profit distribution shift algorithm creators' motivation. Algorithm creators strive to develop curve-fitted algorithms based on historical data to gain top ratings and attract monthly subscribers. Such procedures can be repeated every month - and investors will never earn a cent. The same scheme is possible with platforms that get paid for transactions.

In general, creators of truly profitable algorithms do not receive their just reward.

Such pricing mechanisms may create questions for investors as well. For an investor with substantial capital, \$300 for a subscription is not meaningful, while an investor with only \$1000 would pay thirty percent of his capital to subscribe. An algorithm would have to generate a 43% monthly return for the investor to break even. As a result, investors with limited capital cannot afford to use such services.

Solutions 5

Tradingene focuses on long-term collaboration. All algorithm creators generate success fees for profitable algorithms. Moreover, the success fee is set by the market. Have you created an amazing algorithm? Demand a larger fee. Do you plan to invest a considerable amount of money? Demand a smaller fee. We provide success fee recommendations based on our ratings (the formula for which is publicly available as we value transparency). We believe this system motivates algorithm creators to deliver quality work while investors find themselves in a fair, competitive marketplace.

Problem 6

A large number of «garbage»
and curve-fitted trading algorithms

It is harder to find a profit-making strategy on the biggest platforms than to find a needle in a haystack. For the reasons described above, far more systems target short-term gains rather than sustainable returns. Many algorithm creators use a high number of indicators to curve-fit strategies to a certain instrument and a certain period. As a result, the selection of trading algorithms at such platforms is more like Russian roulette than an intelligent decision.

Problem 7

Many platforms offer manual trading
signals transmission

It is also worth noting that many platforms do not distinguish between manual trading and algorithmic trading. As a result, investors take both market risk and the risk of impulsive trades.

Solutions 6

Appropriate incentive structures will reduce the quantity of low-quality algorithms. Trying to promote a curve-fitted algorithm on our platform would be senseless, and unethical algorithm creators will not spend time trying to put garbage up for auction (they will prefer other platforms that can generate income without returns, so our platform will stay uncorrupted). Furthermore, all algorithms will be evaluated using out-of-sample testing. This approach should minimize curve-fitted strategies and data mining.

In addition, an algorithm creator will provide collateral to put an algorithm up for auction. The collateral is forfeited if an algorithm is unprofitable after the minimum investment period specified by the creator. This will encourage algorithm creators to specify an optimum minimum investment period, since a longer term will help preserve their collateral – but will likely scare investors and the short-term investment periods will have the reverse effect.

Solutions 7

We offer only algorithmic trading. Our platform simply doesn't support manual signals transmission.

AS A RESULT, TRADINGENE HAS IMPLEMENTED A NUMBER OF INNOVATIONS ALLOWING US TO ADDRESS THE PROBLEMS WE SEE ON THE MARKET.

Trade system development technology								
Name	Ninja trader	Trade station	Trading view	Quantopian	Quant connect	Collective2	Etoro	Ameri trade
Backtest and optimization	High	High	Low	Avg.	Avg.	Avg.	Low	High
Usability	High	High	High	Avg.	Avg.	Avg.	Avg.	High
Possibility of automatic trading using algorithms	No	No	No	No	No	Yes	Yes	No
Algorithms can attract investment	No	No	No	Low	Low	Low	Avg.	No
Algorithm creators earn based on invested capital	No	No	No	Yes	Yes	Yes	No	No
Resource availability	High	Low	High	Avg.	Avg.	Avg.	High	Avg.
Trading and education	No	No	No	Yes	Yes	Yes	No	No
Quality community	Yes	Yes	Yes	No	No	No	Yes	Yes

Trade system development technology								
Name	Ninja trader	Welath Lab	Meta Trader	Zulu trade	Finam	Quik	Tran-saq	Bloom-berg
Backtest and optimization	High	Low	High	Low	Low	Low	Low	High
Usability	High	Low	Avg.	Low	Low	Low	Low	Avg.
Possibility of automatic trading using algorithms	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Algorithms can attract investment	No	Low	High	Avg.	Avg.	No	No	No
Algorithm creators earn based on invested capital	No	No	No	No	No	No	No	No
Resource availability	Low	Avg.	High	High	High	Avg.	Avg.	Low
Trading and education	No	No	No	No	Yes	No	No	Yes
Quality community	No	No	Yes	Yes	No	Yes	No	Yes

7 MARKETING STRATEGY

Tradingene is working to develop a quality product within an active and loyal community and a highly developed network of partners. Our goal is long-term, sustainable growth. To achieve our goal we will be using a number of marketing strategies:

- Partnership with major crypto exchanges. Integration of the Tradingene service, providing the ability to trade using our algorithms on a given crypto exchange. We will make announcements about such agreements and new partnerships in the media.
- Tradingene token issue on major cryptocurrency exchanges. Marketing strategy supporting token price (community collaboration, publications in leading media, creation and ensuring regular demand on the platform).
- Demo-version access for investors.
- Purchase of banner advertising at traditional and cryptocurrency exchanges.
- Attracting potential algorithm creators through content marketing (publications about the service in the company's blogs, on relevant forums and in the mass media).
- Participation at relevant events and conferences: speaking, partnership and sponsorship at leading events.
- Contextual advertising.
- Targeted advertising on social networks.
- Working with our advisory board on a regular basis to enhance the platform.
- Working with opinion leaders. Soliciting assessments of Tradingene by well-known crypto and algorithmic traders, famous bloggers and blockchain evangelists.
- Organizing Tradingene conferences for creators and investors with a view towards forming a loyal community.
- Traffic analysis via geolocation. Working with major local communities in different countries through publications in local media. Personal engagement with interested communities by Tradingene's team.
- Establishing a loyal and active community on the platform, one actively engaged in sharing ideas and experience as well as collaborative algorithm development, building upon investors' requests.

8 ROAD MAP



Q1 2018
ICO

Introduction of algorithm development in Python. Improvement of beta test environment. Connection to cryptocurrency exchanges. Marketplace and mobile application development.

● Q2 2018

Launch of mobile applications and telegram bots for investors. Launch of analytic products, forecasts, alerts bots.

● Q3 2018

Launch of Algorithm Auctions with auction results and smart contracts entered onto blockchain.

● Q4 2018

Trading at cryptocurrencies exchanges begins. Connection to stock markets and futures exchanges.

● Q1 2019

Integration with brokerage platforms.

● Q2 2019

Cooperation with other blockchain services for algorithmic processing and algorithm storage.

● Q3 2019

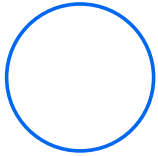
Expansion of opportunities for algorithm purchase and platform-based fund of algorithms creation.

● Q4 2019

Geographical expansion of trade platforms, growth of user base, and broadening of assets tradable by algorithm.

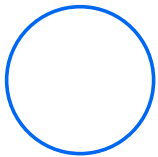
● 2020 +

9 PROJECT TEAM



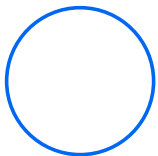
Daniel L. Wolfe
CEO & Co-founder

is a businessman with more than 25 years senior managerial experience, co-founder of the Simoleon Long-Term Value cryptocurrency investment fund, former COO of Troika Dialog Investment bank, former Senior Managing Director and Co-founder of Alfa Capital Partners. Member of the Board of Directors of UC Rusal and PAO Quadra.



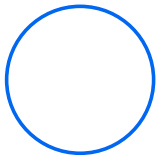
Roman Burtsev
Business Development & Co-founder

has more than 20 years' experience in project management and investment deals; founded several successful companies. Member of the Board of Directors and partner at Knight Frank.



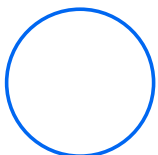
Sergey Kuzmin
COO & Co-founder

has more than ten years' experience in asset management and private capital management on the US, European and Russian markets; more than five years of experience in algorithmic trading.



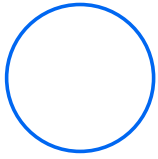
Oleg Bashmurov
CTO

has more than 20 years software development experience. Eight years in Parallels, more than seven years of experience working with payment systems and financial instruments.



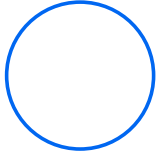
Ruslan Mikhailov
Head of market research & trading

has more than six years' experience in managing funds on futures exchanges through trading algorithms, has CFTe and FRM certificates. Winner of the Bronwen Wood Memorial Prize awarded by the Society of Technical Analysts.



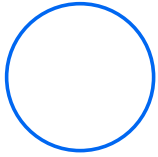
Maria Lobanova
PR & Marketing Director

has broad experience conducting PR campaigns for successful ICO projects and organizing international cryptocurrency conferences.



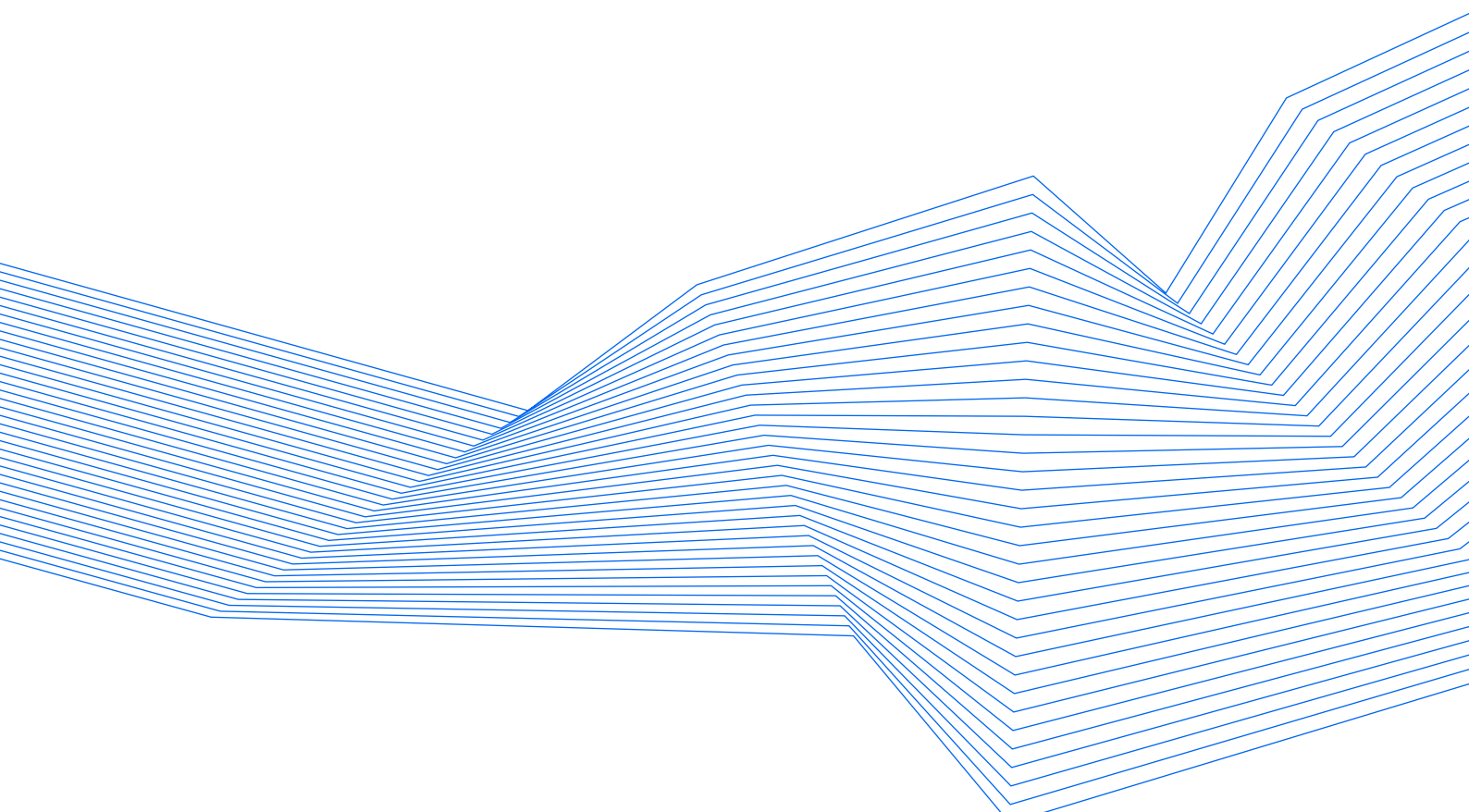
Ilona Hovsepyan
CAO

has more than fourteen years' experience in international consulting companies (Big Five), has extensive experience in structuring and managing projects.



Dmitry Chirkin
project lawyer

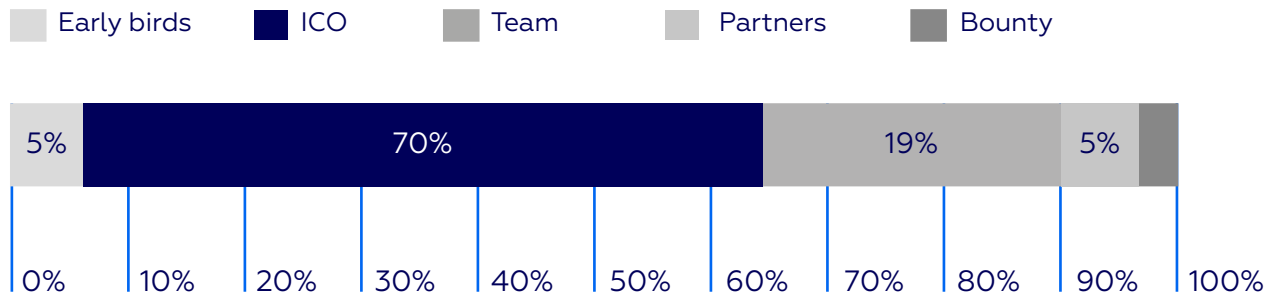
has more than thirteen years' experience in both digital (VC, ICO) and traditional areas of legal practice (finance; mergers & acquisitions). Worked at PwC Legal, Chadbourne & Parke and Dentons.



10 INITIAL COIN OFFERING (ICO)

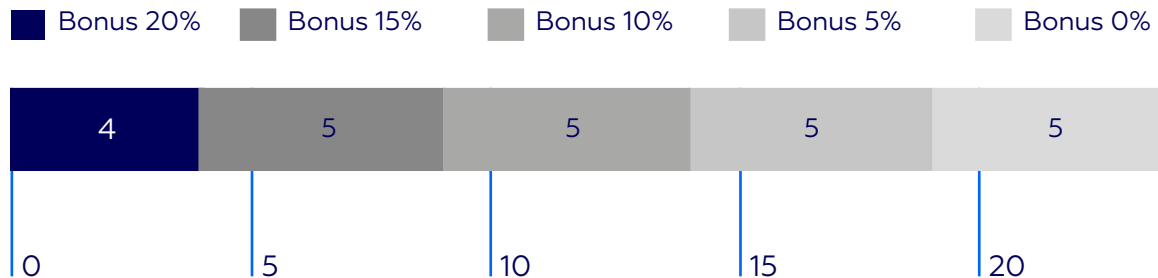
Token allocation will take place in two stages: a closed Pre-sale and an ICO. The closed Pre-Sale began in December 2017. ICO is anticipated in March 2018.

Token distribution:



Token distribution during Pre-sale and ICO will include the following bonuses:

(in millions of tokens)



Tradingene plans the following use of funds. Depending on the amount of funds raised, Tradingene has staged its goals and the anticipated pace of platform development.

Cap	Planned actions
Up to \$4 mm	<ul style="list-style-type: none"> – Further development of platform for algorithm creators – Algorithm auction launch – Telegram channels launch
Between \$4 mm and \$8 mm	<ul style="list-style-type: none"> – Aforementioned actions + – Aggressive marketing – University courses on algorithm creation
Between \$8 mm and \$16 mm	<ul style="list-style-type: none"> – Aforementioned actions + – Futures and stock exchanges connections – Establishment of European office
Above \$16 mm	<ul style="list-style-type: none"> – Aforementioned actions + – Apply for capital management licenses – Creation of funds of algorithms – Development of new investment product: portfolio of algorithms

Anticipated expenses based on capital raised:

 \$4M cap

	2018	2019	2020	2021	Total	Percent
IT	441 120	394 693	425 421	465 814	1 727 049	41,47%
Platform development	250 272	264 601	353 213	443 411	1 311 497	31,49%
Infrastructure development	190 848	130 092	72 208	22 404	415 552	9,98%
Legal	149 747	93 821	52 470	48 722	344 759	8,28%
Marketing & PR	149 372	171 439	166 446	98 735	585 991	14,07%
Advertising	76 706	103 524	93 946	59 382	333 557	8,01%
Conference organization	40 060	31 065	22 737	15 574	109 437	2,63%
Conference participation	32 606	36 850	49 763	23 778	142 997	3,43%
Office costs	62 089	47 306	73 000	68 294	250 689	6,02%
HR costs (incl. business trips)	43 850	52 636	31 315	14 367	142 168	3,41%
General expenses	23 903	39 352	54 052	89 407	206 714	4,96%
Management team	198 427	213 502	233 782	261 183	906 893	21,77%
Total	1 068 508	1 012 749	1 036 485	1 046 521	4 164 263	100%

 \$8M cap

	2018	2019	2020	2021	Total	Percent
IT	691 160	684 806	821 703	899 723	3 097 392	38,51%
Platform development	322 536	433 533	682 232	856 450	2 294 751	28,53%
Infrastructure development	368 624	251 272	139 471	43 273	802 640	9,98%
Legal	289 237	181 215	101 345	94 107	665 904	8,28%
Marketing & PR	529 812	649 979	482 356	351 572	2 013 719	25,04%
Advertising	309 023	441 255	261 890	195 130	1 207 298	15,01%
Conference organization	77 376	92 176	124 349	30 082	323 984	4,03%
Conference participation	143 412	116 547	96 117	126 360	482 437	6,00%
Office costs	119 925	91 372	140 999	131 910	484 206	6,02%
HR costs (incl. business trips)	84 696	101 667	60 486	27 749	274 598	3,41%
General expenses	46 169	76 009	104 402	172 690	399 269	4,96%
Management team	222 397	251 514	290 685	343 609	1 108 205	13,78%
Total	1 983 396	2 036 562	2 001 976	2 021 360	8 043 293	100%

 \$16M cap

	2018	2019	2020	2021	Total	Percent
IT	1 379 500	1 366 818	1 640 053	1 795 774	6 182 144	38,51%
Platform development	643 756	865 298	1 361 680	1 709 405	4 580 139	28,53%
Infrastructure development	735 744	501 520	278 372	86 369	1 602 005	9,98%
Legal	577 293	361 691	202 277	187 829	1 329 091	8,28%
Marketing & PR	896 924	1 297 305	802 207	541 172	3 537 608	22,04%
Advertising	616 786	880 710	522 711	389 464	2 409 670	15,01%
Conference organization	154 437	183 976	87 654	60 041	486 108	3,03%
Conference participation	125 701	232 619	191 842	91 667	641 830	4,00%
Office costs	560 437	342 908	281 423	263 282	1 448 050	9,02%
HR costs (incl. business trips)	169 046	202 920	120 724	55 385	548 076	3,41%
General expenses	92 149	151 708	208 378	344 674	796 909	4,96%
Management team	443 887	502 001	580 183	685 817	2 211 888	13,78%
Total	4 119 236	4 225 351	3 835 244	3 873 934	16 053 765	100%

	2018	2019	2020	2021	Total	Percent
IT	1 637 290	1 622 238	2 246 533	2 481 354	7 987 414	33,21%
Platform development	764 056	1 026 998	1 616 140	2 028 845	5 436 039	22,60%
Infrastructure development	873 234	595 240	330 392	102 509	1 901 375	7,90%
Legal	685 173	429 281	2 240 077	1 972 929	5 327 461	22,15%
Marketing & PR	1 064 534	1 539 735	952 117	642 302	4 198 688	17,46%
Advertising	732 046	1 045 290	620 391	462 244	2 859 970	11,89%
Conference organization	183 297	218 356	104 034	71 261	576 948	2,40%
Conference participation	149 191	276 089	227 692	108 797	761 770	3,17%
Office costs	665 167	406 988	334 013	312 482	1 718 650	7,15%
HR costs (incl. business trips)	200 636	240 840	293 284	215 735	950 496	3,95%
General expenses	109 369	180 058	397 318	559 084	1 245 829	5,18%
Management team	526 837	595 811	688 603	813 977	2 625 228	10,91%
Total	4 889 006	5 014 951	7 151 944	6 997 864	24 053 765	100%

11 INITIAL COIN OFFERING (ICO)

Based on our market analysis and Tradingene's unique product, we believe our project will succeed. The principle pillars of anticipated success:

1 Algorithmic trading on financial markets

Our platform is not a platform for trading or passive investment. It is designed to provide returns by providing a different form of access to financial markets. Given the many significant advantages of algorithmic trading over manual trading, we believe trading algorithms will provide an effective, balanced tool for investing, creating investment strategies and generating long-term returns on financial markets.

2 Underdevelopment of the algorithmic trading market

Algorithmic trading is currently available only to large funds and experienced traders who develop algorithms solely for their own use. Investors wishing to invest in or create trading algorithms face one or more of the problems described above. Tradingene solves these problems by introducing a series of innovations, including algorithmic trading auctions and the integration of blockchain onto our platform.

3 Strong competitive advantage

Tradingene introduces a number of innovations providing a strong competitive advantage. These include: (i) a web environment for developers of trading algorithms; (ii) an efficient profit sharing mechanism; (iii) competitive, transparent conditions for raising capital through auctions; (iv) an AI-based system for creating, analyzing and rating algorithms; (v) algorithms out-of-sample testing to preserve the quality of our product; (vi) and platform flexibility. These competitive advantages will allow us to form a loyal community of algorithm creators and investors.

4 Cryptocurrency market growth and transition

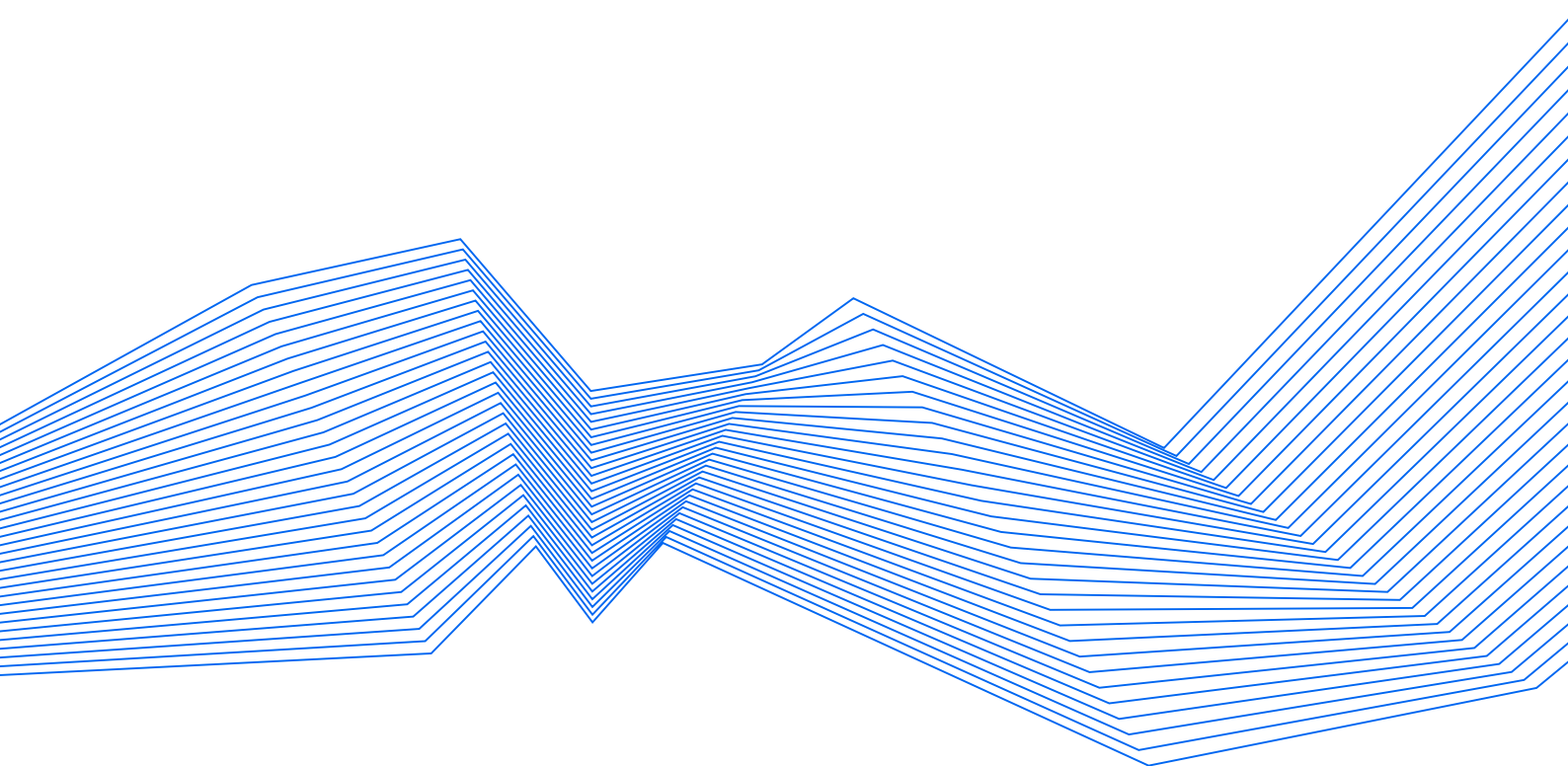
Cryptocurrencies attract an increasing number of market participants every day. At the same time, the market may soon reach the point where trading, given high volatility, may be more profitable than investing. This trend is already clear on short-term timeframes. Taking into account liquidity growth, narrowing spreads and reduced transaction costs, we expect trading to provide opportunities to generate attractive returns.

5 Platform flexibility

The platform can work on any cryptocurrency or traditional exchange. It can use any instrument - from bitcoin and orange juice futures to stocks and bonds. Our success does not depend on any particular market or exchange. This allows us to be flexible and resilient to possible crises. As long as there is open-market trading, there will be a place for Tradingene.

6 Competent and experienced team

Our team has deep and varied experience in financial markets. We have gathered professionals from different areas - senior managers, trading algorithm developers, stock traders, asset managers, platform developers and developers of trading terminals. We are committed to creating a product of exceptional quality, a large and active community and a platform for sustainable growth.



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