## QUANTOR

WHITEPAPER

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Purchased tokens cannot be offered or distributed as well as cannot be resold or otherwise alienated by their holders to persons of aforementioned countries.

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## 1. Introduction

The Quantor project, which effectively uses the professional background of the team and experts, as well as modern methods of training and blockchain technologies, provides participants in the decentralized and classical economy with advantages of quantitative methods in asset management and blockchain.

Quantor plans to develop the ecosystem of talented algorithmic traders and asset managers, using numerical methods and computer technologies - «quants» and investors.

As a rule, it is difficult for an ordinary person to understand clearly the variety of investment opportunities. To find the investment managers and advisors become is a more attractive way for retail investors because of the lack of knowledge, experience and free time. At the same time, two factors are critically important for successful investment: reliability and professionalism of the managers.

There are many cases when investors lost significant funds because of dishonesty or lack of professionalism of managers. Now, for the successful investment, it became especially important to be able to apply the latest computer technologies, including large data analysis, machine learning, direct access to exchanges, and systematic methods in investing.

Quantor strives to bring the advantages of numerical methods of asset management in the decentralized and classical economy through the development of the ecosystem of talented developers of quantitative investment strategies using latest computer technologies.

The main goal of Quantor is to make modern investment technologies available to a wide range of investors. The platform increases the availability of innovative technologies, using online training courses and cutting costs by replacing offline intermediaries with software solutions.

Computer technologies create an additional factor of reliability and efficiency of investments by minimizing the risks of the human factor in making investment decisions. The Quantor platform will combine the educational online platform and a marketplace of investment algorithms for cryptocurrency and fiat markets. Quantor will offer its services to a wide range of investors working with various financial assets. Quantor's capabilities will be applicable to both traditional financial instruments and cryptocurrencies.

The platform will be developed in cooperation with brokerage and management companies, as well as exchanges, which will allow their needs to be taken into account, and in the future - Quantor services to be offered to their audience.



The goal of the platform is integration, testing, and verification of developed trading algorithms on the platform using the blockchain technology, formation, and provision of the capital flow, as well as educational and information solutions for quants and investors.

Quantor's team has defined a plan that describes the main stages of the platform development based on the results of the token-sale. Since the platform consists of several parts, the development of each of them will take place in parallel with the development of other elements. Within one part, each next stage is based on the results of previous stages of development.

Since Quantor will act not only as an educational center but also as an information platform for investors who consider the possibility of investing in algorithms provided by the developers, the project plans to obtain the necessary licenses of the financial regulator in the country of incorporation to ensure compliance with the specified legislative requirements where they are introduced and mandatory.

The parent company of the Quantor project will be registered, and the Quant utility-tokens will be issued in the jurisdiction of one of the countries supporting the development of cryptocurrencies and blockchain technologies. Quantor token holders will obtain access to various services and platform capabilities, depending on the number of tokens purchased by the user.



## 2. The Market

## 2.1 Development of Financial Technologies (FinTech)

The global fintech market continues to rapidly evolve in several directions, including:

- development and adaptation of blockchain technologies to existing market mechanisms and instruments, development of new crypto assets;
- crowdfunding/crowdinvesting technologies, including token sale;

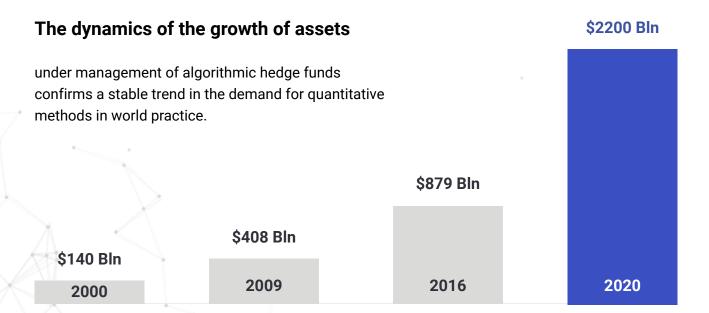
- development of payment services and platforms;
- development of investment technologies (Invest FinTech), including algorithmic trading and robo-advising;
- development of financial marketplaces.

The USA is the main market for traditional financial instruments. Its main participants are:

 Individual investors and traders;  Corporate clients - investment banks, funds, and companies.

Other important markets are European and Asian regions.

The USA and Asian are the largest players on the cryptocurrency market.

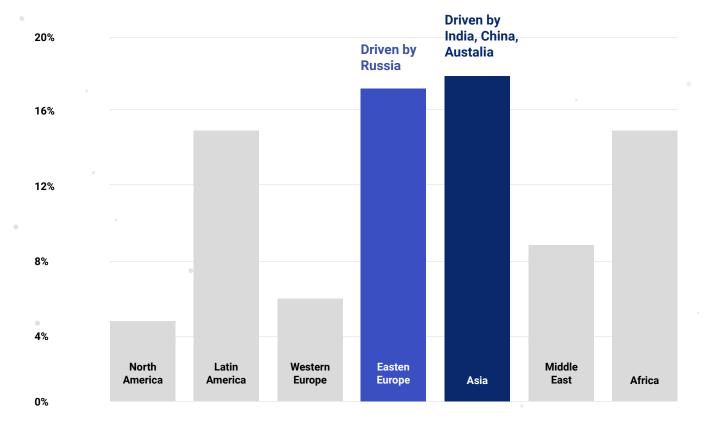




## 2.2 Development of the online education (EdTech)

The world is actively developing online learning technologies (eLearning), which allow knowledge to be obtained remotely.

Taking into account the world trends, the training of specialists and the development of projects in the field of Invest FinTech can be built in the form of a comprehensive solution, including online and offline training programs involving experts from investment and financial companies.



The introduction of online learning will allow getting beyond territorial boundaries in the search and training of talented developers of quantitative investment strategies, allowing a know-how conveyor of continuous creation of new effective investment solutions to be made.



## 2.3 The Cryptocurrency Market

Bitcoin (BTC) is the most popular and capitalized cryptocurrency, Ethereum (ETH) is the second one by popularity, and by capitalization. Ethereum is the next step in the development of ideas and technology/protocol of Bitcoin. There are many other crypto assets in the world. New users' interest creates additional opportunities for the development of cryptocurrencies, which means that the application, distribution, and demand for cryptocurrencies will continue to grow.

The Cryptocurrency market capitalization in December of 2017 has exceeded \$ 500 billion.

According to Statista research and expert estimates, the number of users of crypto-wallets has been growing since the creation of the Bitcoin virtual currency and in September 2017 it was about 15 million, while from 5.8 million to 11.5 million wallets are actively used. According to analysts' estimates, the average wallet size is now about \$10k and it is expected that by 2025 the average wallet size can exceed \$12k, and the total capitalization of the cryptocurrency markets will reach \$5 trillion.

According to the Cambridge Center for Alternative Finance research, in 2017, 46% of cross-border payments in cryptocurrency had a transaction size from \$100 to \$1,000, and 34% of them exceeded \$1,000. The average transaction size between the companies (B2B) was about \$1,900, transfers to P2P were an average of \$351, and the average size of customers' transactions in the B2C segment was about \$210.

New investment, IT and blockchain technologies are actively developing around the world. Based on advanced technical background, distributed teams from different countries, with the participation of international experts, create projects attracting the interest and resources of a wide audience of crypto-investors all over the world.



























## 3. Problems of the industry

## 3.1 Training of the InvestTech specialists

The training system of specialists in investment fintech-segment is only being formed in the world. Some educational programs, including those in well-known universities, exchanges, training programs of some investment companies, as well as independent educational projects are appearing.

#### The cost of specialized offline programs is quite high, for example:

UC Berkeley (Master of Financial Engineering) is about \$69k;

CQF (Certificate in Quantitative Finance) is about 12.5 thousand pounds.

InvestTech continues to get more complicated, so there is a large growing demand and competition for talented specialists from investment companies and hedge funds.

## 3.2 Problems of private traders and investors

The growth of availability of financial markets attracts a large number of individual quants (algorithmic traders) who face the following problems:

- A variety of specializations requires acquiring knowledge and skills in different disciplines: financial markets, programming skills, statistics, financial engineering;
- It is difficult for investors who want to provide funds under management to find actually talented quants and reliable trading algorithms.
- Lack of resources and related infrastructure results in limited experience and losses of capital. Success requires:
  - Appropriate software and analytical tools;
  - High-performance servers and computers;
  - Historical data and access to trading tools in real time;
- Lack of mentoring and support of experts;

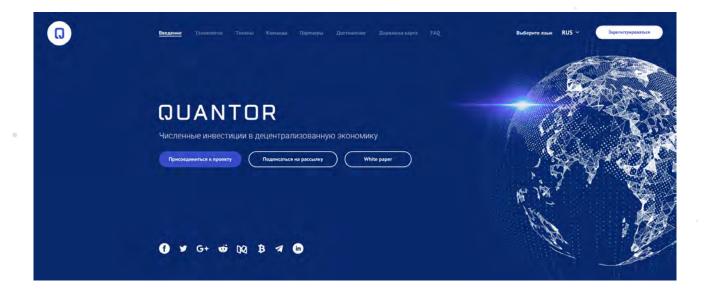
A significant weakness of the existing social trading platforms is the presence of many inexperienced traders who receive temporary positive results, raising investors' capital. The platforms open to investors, bear risks of accumulating of inefficient and high risky trading strategies based on random factors. Such platforms allow non-professional investors to provide funds under management to unqualified traders whose positive trading performance are of an occasional and short-term nature.



## 4. The solution is the Quantor platform

The Quantor team is sure that the technical background of algorithm developers (mathematics, statistics, probability theory, machine learning, financial markets and other related disciplines) has advantages over classical traders without a corresponding background. Therefore, the overriding decision to use and provide algorithmic systems and methods on the platform was taken encouraging algorithm developers to take necessary courses and to get certified to confirm their experience and increase the rating in the arising Quantor ecosystem.

Quantor (Quant Accelerator, quantor.co) is an international ecosystem that combines an online training platform and a marketplace of investment algorithms and solutions for the cryptocurrency and fiat markets, which allows the knowledge and skills of investment industry experts and developers of investment algorithms and applications to be effectively introduced into the economic turnover.



Quantor spreads knowledge and technologies of classical financial markets and machine learning to the market of cryptocurrencies and blockchain solutions, combining the long-term financial experience of the team with new blockchain technologies and the developing cryptocurrency market.



Quantor solves the problem of obtaining the necessary knowledge and skills of applying computer technologies for investments, providing:



Educational materials of the best universities and industry experts;



Ready-to-use investment tools and applications;



Access to platforms for algorithmic strategies testing;



Professional literature, publications, and researches.

Institutional investors will get an access to talents, structured knowledge and products created by talented users, and developers will have a «bridge» for access to investors' capital. The platform can be completed by:

- Offline courses, seminars and master classes;
- Hedge (crypto-) fund based on a diversified portfolio of best algorithms.

#### Quantor — is a specialized ecosystem and a platform that makes it possible to:

- Learn the numerical methods of investment;
- Practice and trade using specialized software;
- Demonstrate investors and the community the investment performance, collectively finalizing it to improve the results and attracting investors' attention;
- Effectively select high-quality algorithms, cutting off inefficient solutions;
- Promptly establish transparent and mutually beneficial relationships between quants (algorithm developers) and investors, making it much easier for investors to search for and select talented managers and quality investment decisions.

One of the Quantor solutions will be the creation of analytical tools based on ML and AI, which will allow the working results of the investment algorithms to be analyzed, revealing the hidden risks of investment strategies and giving an audit assessment of the risk of trading algorithms.



A comprehensive audit of trade strategies using artificial intelligence technologies will allow the riskiest algorithms to be defined, the likely downfall of the capital of the certain strategy to be predicted, as well as signs of the manager's incompetence to be revealed.

#### The Quantor potential customers are:

- Private investors who want to find reliable and advanced solutions for their capital allocation in order to obtain income higher than the bank deposit interest;
- Traders who want to put the numerical trading methods into the investment practice;
- Specialists with engineering education and students with a technical background who want to apply their knowledge in investment;

- Investment companies seeking to find new investment solutions, algorithms, and talented quants;
- Holders of large cryptocurrency portfolios, looking for the possibility of their diversification in order to reduce risks and increase profitability.

## 4.1 The purpose and advantages of the platform

The main goal of creating the Quantor platform is to make computer and algorithmic investment methods and technologies available to a wide range of investors. The platform will increase the availability of modern innovative technologies to retail investors, reducing costs by replacing offline intermediaries with software solutions.

It is difficult for investors to find highly qualified investment managers, to whom their funds can be entrusted. To make successful investments, it is important to be able to effectively use the advanced computer technologies, such as large data processing, machine learning, DMA (direct market access to exchanges), quantitative and algorithmic investment methods and other technologies.

It is also important for retail investors to have an opportunity to invest small amounts in successful investment funds and investment strategies. Quantor will be able to perform the functions of consolidation of investors' funds in pools for the accumulation of small amounts, followed by the transfer of funds under management by trading algorithms, which has a minimum entry level of funds accepted under management.



The main motivation for experts providing their educational content on the platform is a mechanism for coordinating their interests with the possibility to provide maximum accessibility of courses for users-quants on the platform. One of the solutions is the provision by the platform or teacher of the opportunity to the quant to take courses without payment or at a discount in exchange for gaining of part of the future quant's profit based on using trading algorithms in asset management. Another solution may be a provision of funds from an investor of resources to a quant (student) for training in exchange for the quant's commitment to recompense these expenses from revenues from future use of his trading algorithms. In this case, the relationship of the quant with the platform, the teacher of the courses or the investor can be made on the basis of smart contracts using blockchain technologies.

## 4.2 Creating know-how conveyor on the platform

The creation of trading algorithms, as well as the training of algorithm developers, requires a non-standard approach and teaching methods. The practice of successful algorithmic hedge funds testifies that high profitability and reliability indicators are based on a sufficient set of theoretical knowledge and practical skills, on an interdisciplinary approach and long-term experimental work. These criteria create a conveyor of different hypotheses, which can be the basis for creating new efficient algorithms. This concept allows the developer of algorithms to be considered as the main value in the Quantor ecosystem.

Consequently, there is a need to create an appropriate infrastructure, including online courses of experts and industry practitioners, as well as an access to the support of mentors who can quickly close the gaps in knowledge of the quant, to provide assistance and support on mutually beneficial terms. In addition to access to knowledge, an objective evaluation of the developer's current experience is required using an effective testing system aimed at identifying the weak sides in the knowledge of the quant and forming an individual training program on the basis of the results obtained.

Existing quant training programs are not designed to prepare algorithmic traders. We are considering an alternative training model used to build educational programs in the field of entrepreneurship, developed at Carnegie Mellon University. The model is a funnel consisting of several stages. Each new stage involves a more in-depth study of the subject, which helps to reduce the number of users disinterested in the further learning.





#### The main stages of the educational process:



Exciting of interest through the introduction program;



At this stage, the point of no return occurs when the student chooses one of the following career paths:



Students with increased interest in algorithmic trading can pass on to studying basic subjects or a basic program;

- To become an independent algorithmic trader;
- To find a job in investment industry;
- To refuse the quant career.



The next stage involves taking certain advanced courses from an advanced program;

The funnel model allows the users most inclined towards algorithmic trading to be attracted, and also the best of them to be selected from all over the world, using online learning technologies. Based on the principles of education unidirectionality, which is used by universities such as the City University of New York (CUNY), it is possible to implement a program of support for the best quants exempted from tuition fees and compensation. It is planned to create an endowment fund to finance the best quants and algorithms developed by them.

As a rule, a successful algorithmic team consists of several people performing the functions of a quant, a trader and programmer. Therefore, the training course on Quantor can be a balanced training program in these fields, and advanced teaching materials will give the opportunity to choose a specialization. A training program may include, but is not limited to, a technological block (the basis of exchange and financial protocols, the infrastructure of direct (DMA) access), a block of programming and the trading software (design and development of data processing programs, placing orders, risk management, and portfolio contraction), a block of financial mathematics (financial engineering and quantitative analysis), a block of algorithmic trading (the basis for developing trading algorithms).



Theoretical training materials will be prepared with the participation of specialists of mathematical and technical universities, and practical workshops and consultations will be conducted by experts of algorithmic trading, by specialists in coding trading strategies and programming. Thus, Quantor can become an incubator of high-class specialists and algorithmic teams.

The goal of Quantor is to create a know-how conveyor to create profitable and reliable algorithms that can become more promising alternative investment tools in a decentralized economy.

## 4.3 The advantages for quants

Quantor will provide quants - users of the platform with:

- Online courses and materials:
  - · Open courses at various universities and platforms (edX, Coursera, MIT, and others);
  - Paid courses of individual experts and Quantor's own courses:
    - specialized courses in the field of financial engineering, algorithmic trading and asset management;
    - in-house-courses, which are the quintessence of knowledge and skills;
    - ready-to-use tools and solutions for advanced FinTech applications;
  - Testing and assessment of students' knowledge (tests and brain teasers will be presented on the platform);
- An opportunity to use software usual for quant (developer) from which the quant can broadcast the results of trading to Quantor to demonstrate them to potential investors.

The results of the algorithms (backtesting, paper-trading, and live trading) can be presented on Quantor for the purpose of raising additional funds under management, as well as obtaining an independent audit for each trading algorithm. The API Quantor will be developed for those who do not want to use third-party software and transfer their results to Quantor.

Having practical experience in financial markets, in developing and testing trading algorithms and machine learning programs, we understand that creation of successful investment algorithms and applications requires high-quality data. Therefore, Quantor will be able to work as an incubator, providing access to data and infrastructure for the development and testing of products (similar



to the international FinTech Sandbox, establishing partnerships and receiving data from various providers, as well as from cryptocurrency exchanges).

In the case of a successful token sale, Quantor reserves some of the collected funds in the form of various cryptocurrencies and tokens. These funds will be provided under the management of the best trading algorithms if a certain set of requirements is satisfied, for example, after taking quants - developers of the algorithms the minimum set of required courses and successfully backtesting and paper-trading algorithms.

Quant-developer, as well as an expert teacher, will be able to gather around themselves a group of enthusiasts who will take part in improving an existing algorithm or testing an investment idea. This will allow both the initiator of the idea and his assistants to make a profit. At the same time, intellectual property created by a group of developers will belong to this group in proportion to the contribution of each of the participants.

Cooperation in the development of algorithms will increase the speed and efficiency of development and is aimed at the development of monetization and increase in overall profit. The use of blockchain technology and smart contracts will ensure reliable protection of the developers' rights and exclude theft of intellectual property or fraud.

## 4.4 The advantages for investors

The main advantages of the platform for investors will be:

- Possibility to see the results of backtesting, real trades and profiles (personal data and evidence of training) of real quants in one place;
- Possibility to obtain analytics/rating of quants and algorithms (bad/good);
- Recommendations on portfolio/ portfolios of trading algorithms based on machine learning methods depending on the investor's risk profile;
- Possibility to analyze and discuss trading algorithms traded in different brokerage houses and exchanges in the one place. A general forum with the possibility to post positive and negative feedbacks is also an important component when choosing the right quant or algorithm.



Computer technology creates an additional factor of reliability and efficiency. The use of computer technology in the investment industry takes on particular importance when the minimization of the risks related to the human factor in making investment decisions is concerned.

In the case of open platforms that allow managers and traders to attract investors' capital, the problem of investment risks related to human factors and technological risks remain unchanged:

- Internet connection and electric power interruptions;
- Deviation from the logic of the investment strategy by the asset manager.

The reasonability of using trading algorithms in the management of investors' capital is the only possible way to leveling the risks related the human factor.

Hosting of trading algorithms on the Quantor platform will allow the mechanism of interaction of the smart contract with each algorithm to be implemented. This solution has significant advantages of monitoring, which has no analogues. The interaction of the algorithm with the smart contract allows any changes and modifications to the parameters of the investment strategy included in the algorithm to be registered while retaining the intellectual know-how of the algorithm developer and providing investors with a guarantee that the management of their assets is used in accordance with the logic of the chosen trading algorithm.

The location of the trading algorithm on the VPS hosting of the Quantor platform will allow to partially eliminate risks associated to a technical part of the overall process



## 5. Quantor Ecosystem

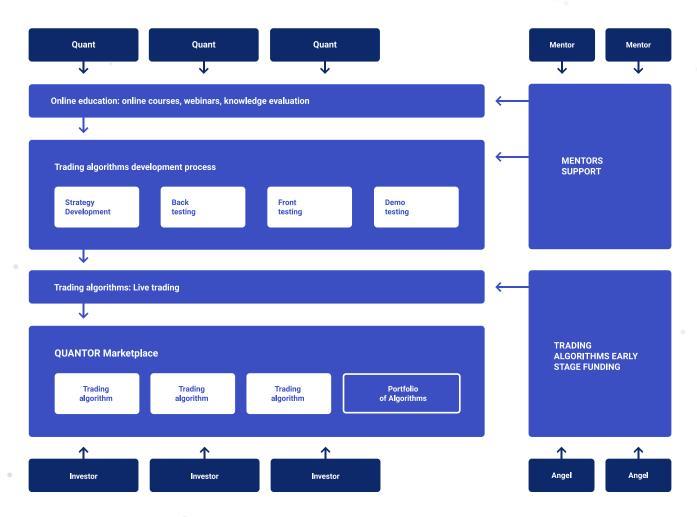
Quantor will offer its services to broad masses of investors of traditional and crypto markets. The platform will be developed in cooperation with brokerage companies and financial asset managers, which will allow their needs to be taken into account, and in the future - Quantor services to be offered to their audience. Quantor's capabilities will apply both to traditional financial instruments, and to crypto markets

## 5.1 Roles of ecosystem participants

The platform provides four possible roles for users: an expert teacher, a quant-developer, an angel-investor, and an investor, the roles which, if desired, can be combined by users:

- Expert-teacher-mentor is a specialist in a certain field of mathematics, statistics or quantitative finance, and algorithmic trading, offering training opportunities (online courses, webinars, individual consultations, tests, and workshops) to other platform participants, both on paid and free basis;
- Quant-developer is a specialist who develops investment algorithms both independently and in a
  group with other quants in order to provide them to potential investors and to receive additional
  funds under management by using developed algorithms or for educational purposes;
- Angel-investor is an investor who participates in financing trading algorithm at the early stage,
   receiving a share of the future return on the use of the algorithm in managing investors capital;
- The investor is a user who provides funds under management to trading algorithms available on the platform or for financing any activities and purchases (courses, training materials) on the platform.





A variety of relationships can be formed between the participants of the Quantor ecosystem (users of the platform), providing the raising of various mutual interests and payments. The blockchain technology will make it possible to effectively document and control the mutual obligations of the participants, significantly simplifying their relationships and ensuring the quality of the platform services. Business processes optimized with the help of new blockchain technologies, will become the driver of growth of turnover and popularity of tokens and increase in capitalization of the Quantor platform.



## 5.2 Relationships between investors and quants

Development, testing, and implementation of profitable and robust trading algorithms require a significant amount of time. For this, the following concept of relationships is possible: quant, angelinvestor, investor:

- Quant develops and tests the algorithm;
- The angel-investor takes the risk of investing a minimum amount of capital to test the algorithm on live trading mode;
- Investors invest in algorithms that have generated positive results on real money.

The trading algorithm has the risk of potential inefficiency, like any financial instrument. Stable and long-term profitability on sufficient amounts of capital is the most important criterion for investing in a particular algorithm. Nevertheless, investment at the initial stage is the only and necessary condition for its verification. This stage of testing has the greatest risk for the investor.

A possible solution is a progressive system of risk and returns distribution. Investing large sums of capital should be related to a lower level of risk, but the maximum risk should be compensated by a higher level of potential income. Traditionally, the venture industry invests capital only in case of the successfully developed project after the seed stage of investing. The maximum risks of the initial stage are assumed by angels, who take a greater share of the risk in return for a larger share in the company.

In a similar way, the angel on the Quantor platform, in case of investing in the algorithm at an early stage, has the right to receive a greater reward for greater risk. The share of income from capital management can be distributed between the investor and the manager in various proportions, for example, 80/20 or in a different ratio.

Taking into account the role of the angel in the process of investing the first capital and further investing large sums from an unlimited number of investors, the angel can claim to receive a percentage of profit from the use of the algorithm, as the developer of the algorithm.

For example, after creating and passing all the stages of the algorithm development and testing, except for testing the algorithm on real money, the angel can invest the first \$10,000 in the trading algorithm for a period of 12 months.

#### In exchange for this risk, the angel will receive:

- 80% of the income from the profit from the sum of own invested funds (provided that the profit is gained by this algorithm);
- The right to 5-10% of the income when managing the capital of all investors who subsequently invest in this algorithm (provided that investors invest and gain profit of this algorithm).

A specific model of payment for management will be established and fixed in a smart contract. An investor, choosing an algorithm for investing, will accept a certain model of relations and payment for management. The Quantor platform, in its turn, will be able to receive part of the management fee in the form of commissions.



## 6. Business-model and monetization

On the Quantor platform, various models of monetization will be implemented, which will make its revenues more sustainable due to the diversification of sources and types of income.

## 6.1 Commission business-model.

The commission-based business model will be used as a main business model on the platform, while commissions from the sale of various products and services will be a reward on the platform, and industry experts, universities, consulting companies and developers of ready-to-use tools whose solutions will be presented on the platform will be the payers.

#### The Quantor platform will receive:

- Commission for each training course, webinar, individual consultations sold on the platform;
- Commissions from sales of ready-to-use tools, licenses, publications, researches, books;
- Payment for the service when funds are raised («pooled») and transferred from a number of individual retail investors under management by trading algorithms;
- Commission (percentage of profit) for asset management using trading algorithms created on the platform and selected by investors to use;
- In the future, it is possible to receive part of the commission of brokerage companies and cryptocurrency exchanges for transactions made by users of Quantor platform.

Also, certification and testing will be implemented on the platform to confirm the appropriate level of user knowledge on a paid or free basis.



## 6.2 Subscription model

A part of the income will be brought by the subscription model for access to certain platform services, for example, to unlimited access of certain training content or analytical services and complete quant profiles, which can be required for institutional users from investment companies and funds, allowing them to provide access to the platform for wide range of employees.

A subscription model can be used with payment for a month, a quarter, six months, a year. In this case, flexible subscription plans will be provided depending on the user's activity.

The implementation of the subscription model requires a significant amount of high-quality content on the platform. To do this, quants and industry experts, able to generate the necessary amount of high-quality content from their materials, will be actively involved in the Quantor ecosystem.

#### 6.3 Additional income

Additional high-margin profits can be gained:

- as a result of sales of proprietary Quantor training courses;
- as a result of the service provided to the experts for designing and posting of their training materials on the platform;
- in the future by managing its own hedge (crypto) fund.

Ecosystem and infrastructure of the Quantor platform will be expanded and updated as the platform has been developing, new useful services will appear, among which:

- trading algorithm ratings;
- indexes and portfolios of the best algorithms;
- products for monitoring the status of portfolios;
- providing trading signals and notifications.

Also, requests for the API can be provided on a paid basis (after its development).

The platform will also allow its users to earn a profit: commissions for products and users' solutions sold on the platform, publications of materials and posts, blogging, the attraction of new users to the platform (Referral Program). When a certain status is reached (depending on the number of QNT tokens), the user can also receive a cashback for a part of the transaction costs.

To launch Quantor project both existing database of users and contacts in the professional investment and financial world will be used. This will lay the groundwork for further development and growth of the profitability of Quantor.



## 7. Roadmap and plans

The creation of the platform and community of Quantor includes various aspects, including technologies, content, promotion, possible regulations and licenses in various jurisdictions and many other challenges. The Quantor team defined a plan that describes the main stages of the development of the platform based on the results of the token-sale. Since the platform consists of several parts (marketplace and educational platform), the development of each of them will take place in parallel with the development of other elements. At the same time, within one part each next stage is based on the results of previous stages of development.

The main items of expenditure of the capital received from the token-sale will be the development of platform elements and expanding project team and marketing. To comply with the requirements and regulations, it may also be necessary to purchase licenses and permits in certain jurisdictions. At the same time, Quantor will use required licenses, cooperation with payment systems, user identification systems and other technical solutions.

Some solutions, such as the technology of analysis, rating, and selection of investment algorithms, which play an important role on the platform marketplace, will be developed using own resources, while others (for example, ready-to-use tools and applications) can be developed and purchased for use on the platform. In the process of development, an ecosystem will be formed, including various solutions and technologies for interaction necessary for users.

## 7.1 Current status of the project

At the moment, the educational Quantor platform works successfully, providing access to online courses and materials to users from different countries. The project is a finalist of EdCrunch 2016 Pitch.Competition, Moscow, a participant of the First International Conference of Sberbank «More than learning: training of the digital world leaders» and a participant in the pre-accelerator program of the Internet Initiatives Development Fund. The project is included in the program of support for start-ups of Amazon - AWS Activate.

Since the spring of 2016, with the help of experts and partners, the open program from a set of open third party courses has been formed for quants on the platform. For the presentation educational courses and materials in English and Russian languages have been selected from various fields of mathematics, statistics, programming, finance, and investment, work on the system of assessment skills of developers is in progress. The placement of online courses of international experts has begun.





## Backtesting: complete online course

The focus is on discovering and avoiding various pitfalls during the backtesting process that may degrade performance forecasting.

**Ernest P. Chan** 



#### Introduction to Quantitative Investment

In this course, students study trading strategies from the popular academic literature and learn the fundamental mathematics and IT aspects...

Dr. Haksun Li



# Алгоритмический трейдинг с использованием платформы StockSharp

Платформа StockSharp это профессиональное решение для разработки торговых алгоритмов любой сложности.

#### https://quantor.co/courses/

Also, Quantor has started to present ready-to-use applications, which are located in the «Marketplace» section. Work on development of the methodology and technology for analyzing investment algorithms using ML and AI technologies is in progress.

## 7.2 Organizational Structure

Organizational and legal structures of the platform and ecosystem of Quantor will be developed with the participation of professional lawyers and experts. The parent company of the project is QUANTOR LIMITED.

The company established under the Malta's legislating and having its registered office in East Gate Office, School Street, Msida, MSD1613, Malta.

The Quant (QNT) utility tokens will be issued in the jurisdiction of one of the countries supporting the development of cryptocurrency and blockchain technologies. The final choice can be made by the time the presale or token-sale is held.

Following the results of conducting a token-sale, affiliated and operating companies may be registered in different jurisdictions depending on the possibilities of development in prospective markets.



The Quantor tokenizer company will provide the opportunity to purchase Quant tokens to anyone who has passed the relevant procedures of KYC/AML (Know Your Customer/Anti-Money Laundering) and will perform all activities related to the creation and provision of tokens.

In the case that a potential Quant token buyer refuses to pass the KYC/AML procedure, or during the verification process, it will not be possible to uniquely identify a potential buyer or establish the origin of its funds, the purchase of Quant tokens will be denied to such a user. Owners of Quant-Tokens who want to exchange tokens for fiat money will be required to pass the KYC procedure.

The platform will accept and make payments only to customers who have previously been identified and comply with all procedures within the KYC/AML policy framework. Both cryptocurrency exchanges and private resellers and agents can be Quantor's counterparties. A company account can be opened in one of the banks that support the development of blockchain technology.

## 7.3 Development of the Quantor Ecosystem

As soon as the technological side of the platform is ready and filled with content, the Quantor team concentrates efforts on the development of the community. Investments in development will be carried out in parallel with the release of working versions of the product. The growth of the community means an increase in the number of end users (quants, experts, investors) and platform partners - brokerage, management and investment companies and banks, which in its turn can promote Quantor solutions to their users. The more there are active users on the platform, the more transactions there will be, thus, the greater will be the demand for tokens and project capitalization.

Measures to increase the Quantor user base will include marketing and promotion of the platform among the target audience, marketing and promotion of successful quants and algorithms, PR and GR, aimed at the spread of knowledge about the benefits of the development of new investment technologies in a decentralized economy.

The Quantor business model becomes successful in case of attracting a large number of users, and to do this it is necessary to create a high traffic and a proper promotion of the platform. Considerable attention will be paid to marketing in an audience having knowledge of financial and cryptocurrency markets, among specialists and students with a technical background, as well as an audience of investors who keep their savings in the cryptocurrency.

To attract and motivate new users to create trading algorithms on the Quantor platform, competitions and contests will be held in which developers will be rewarded for the best trading algorithms.



#### The rewards may include:

- Payment of compensation for the use of the algorithm in the management of investors' capital;
- Financing of the algorithm and distribution of income between the platform and the quant.

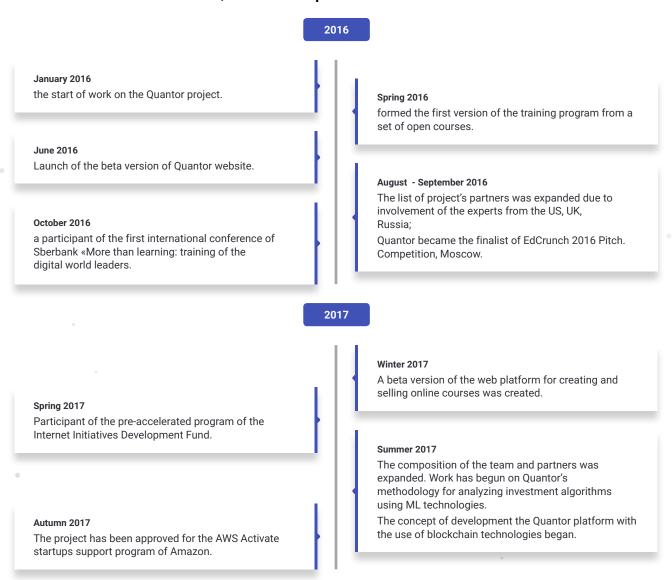
Another method used by investors to select quants and algorithms can be an organization of competitions and contest (both virtual and on live trading accounts), on the platform according to which managers/algorithms can receive funds under management. At the same time, each investor will be able to create his own conditions of competition and providing funds under management, programmed in advance in smart contracts.

The project plan includes the development of an effective legal framework for working in different countries and the registration of a legal entity (or persons) to comply with all the norms and requirements of regulators in different jurisdictions. To do this, experienced and professional legal advisers will be invited to support the project.

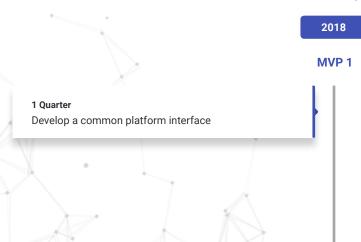


## 7.4 Roadmap and plans

#### **Quantor Development Milestones:**



#### **Current plans for the project development:**





#### 1 Quarter

Creation of a workflow interface for blocking technology. Reflecting the essential facts of interaction between participants in the form of transitions through interaction schemes, reflected in the history of transactions in the blockchain.

#### 1 Quarter

Realization of personal accounts of quants, mentors, angels-investors with the functions of providing and receiving educational services and the initial financing of trade algorithms.

#### MVP<sub>2</sub>

#### 1 Quarter

Creating an environment for integration and business testing of algorithms.

#### 1 Quarter

Implementation of business testing (back, front, demo), implementation of build management and stable versions of algorithms.

#### 1 Quarter

The possibility of placing the trading algorithm in the quant's personal account.

#### 1 Quarter

Creation of the trading interface of algorithms with connection of the most simple and convenient markets.

#### 1 Quarter

Development and testing of the wallet.

#### 1 Quarter

Development of technical standards for the development of algorithms and specifications for integration testing. Implementation of automated integration testing of algorithms.

#### 1 Ouarter

Development of the procedure for access of the algorithm to the marketplace.

#### 1 Quarter

Realization of the personal account of the investor with a demonstration of the possibility of transferring funds to the trust management of the chosen algorithm and withdrawal of funds. Demo-implementation of the algorithm portfolio.

#### 1 Ouarter

Automation of algorithm management through smart contracts.

#### The Quantor v. 1.0 Platform

#### 1 Quarter

Connection of new markets to the platform interface.

#### 1 Quarter

Implementation of an investors' funds management scheme well-adjusted on transaction mode on smart contracts, launching the system in a test mode.

#### 1 Quarte

The realization of the opportunity of a quant to redistribute funds within its portfolio among its algorithms.

1 Quarter
Conducting the closed pre-sale



#### 1 Quarter Conducting the pre-sale

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#### 1 - 2 Quarter Conducting the token-sale

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#### 1 Quarter

#### The Quantor v. 2.0 platform (launching in the operational mode)

#### 1 Quarter

Launching of the system in the operational mode on the Ethereum network, realizing the opportunity for investors to transfer funds to trust management.

#### 1 Quarter

Issuing platform tokens.

#### 3 Quarter

Creating a platform demo version.

#### 1 Quarter

Creation of quant's portfolio controlled by the algorithm in which the funds are automatically distributed among the algorithms.

#### 2 Quarte

Applying for a license in the selected jurisdiction.

#### 4 Quarter

Debugging and setting up the product during the demo version work.

#### 2019

#### 1 Quarter

Conducting the first contest among quants.

#### 2-3 Quarter

Beginning of the collection of working statistics of the first investment algorithms on real money.

#### 3 Quarter

Investments in the first algorithms.

#### 2 Quarter

Implementation of the function of forming portfolios of algorithms.

#### 1-2 Quarter

Creating the first working version of the platform.

#### 2-3 Quarter

Algorithms marketplace formation.

#### 2-3 Quarter

Formation of the Quantor crypto fund.

#### 3-4 Quarter

Applying for licenses in the US and other jurisdictions if required.

2020

1-2 Quarter

Creation of a bridge between the investors' capital and the platform



## 8. Economics and distribution of tokens

## 8.1 Using tokens

Quant (QNT) tokens will be issued in order to create an efficient economy of the Quantor ecosystem facilitating the development of the project and a blockchain community that establishes transparent and fair relations between all ecosystem participants - experts, quants, investors, the Quantor team, and partners.

Owners of tokens will be able to actively participate in the work and development of the ecosystem. Holders of Quant tokens will receive an access to various services and capabilities of the platform, depending on the number of tokens owned by the user. The listing and circulation of Quant tokens on main crypto-exchanges will allow users to freely get, sell and exchange tokens.

The Quantor platform token - Quant (QNT) - will be the mean of exchange in the Quantor ecosystem and will be in free circulation on the platform, providing experts, quants, and investors with a variety of opportunities to interact and collaborate. Tokens will be accounted for and transferred through a distributed Ethereum network, excluding compromise and double consumption of tokens. At the same time, Ethereum network will charge a small commission for executing transactions, which can be compensated for by users of the platform.

#### Tokens can be used:

- for access to internal platform services and products;
- for purchase and sale of internal platform services and products;
- to obtain a certain level of access
   to platform services, for example, to discounts and cashback;

- to participate in various votes and ratings;
- to participate in the work of the investment committee of the Quantor Fund (in the future);
- as an internal medium of investment in trading algorithms.



Quantor will make the purchase and use of QNT tokens simple and convenient. Users will not need to understand the complicated processes of maintaining a cryptocurrency wallet and paying commissions for transactions. In this case, the model of the functioning of Quantor will allow you not only to buy and spend QNT but also to earn them as a reward for the services provided. Tokens can be used to pay for other services, including a future service of analyzing and forming portfolios and indexes of algorithms, as well as licenses for partner software for developing and testing algorithms and subsequent real trading.

The price of each product (a course, a webinar, a consultation, a trading algorithm) on Quantor will be presented in QNT tokens, and the product itself will be connected to the wallet of the owner on the marketplace. Once the user gets an access to his account, he will be able to put necessary number of Quant-tokens in his created wallet.

Since there is a limited capacity of trading algorithms and investment solutions, to limit the blurring of their value, Quantor will develop and apply different levels of access to services depending on the number of tokens owned by the user, or the possibility of use will be regulated by the price of this service on the platform. Determining the levels of access to services will depend on the number of ONT tokens issued.

If a Quantor hedge (crypto-) fund is created on the basis of the best trading algorithms, the platform will receive the management fee and success fee traditional for the asset management business, depending on the value of the assets under management and the profitability of the fund. When creating the fund, an investment committee can be formed including, in addition to representatives of the Quantor team, representatives of large investors (holders of Quant tokens) with a number of votes proportional to the number of tokens that will set limits and take decisions on the use of selected algorithms to manage the Quantor fund.

In this case, several funds with different composition of assets and algorithms can be created according to different levels of risk for different types of investors.

The amount of funds and time for creation funds will depend on the results of implementation of tokens and development of the platform.

Quant (QNT) tokens can be listed on the main cryptocurrency exchanges and freely traded or exchanged for other tokens or crypto-currencies circulating there. Unlike the purchase of Quant tokens on token-sale or their receipt for services provided on the platform, the purchase of QNT on the exchange may be less profitable for users, since exchanges will add their own margins to the cost. Among the successfully operating crypto-exchanges are: Kraken, Poloniex, Bittrex, Bitstamp, Quoine, and others.



Participating in the purchasing of tokens, investors, and quants will become the creators of a hightech ecosystem that develops a new direction of the investment industry and improves the quality of capital management, based on effective motivation for all participants in the ecosystem.

## 8.2 Economic justification

According to the theory of monetarism, the founder of which is Milton Friedman, the Nobel laureate in economics, the amount of money in circulation is the determining factor of economic development. His ideas laid the foundation for many state programs in the 80s of the XX century.

The theory of Friedman served as a basis for the actions of the FED in the course of the global financial crisis of 2007-2008. Within the framework of the theory, it is believed that inflation is almost entirely related to an increase in the money supply. The faster the money supply increases, the higher the inflation level will be. Having the neoclassical quantitative theory of money as a theoretical basis, monetarism is focused on the development of a new version of this theory and proposals for improving macroeconomic policies. According to the views of monetarists, money is the main sphere that determines the movement and development of production.

Demand for money has a constant tendency to increase (which is determined, in particular, by the propensity to save), and in order to ensure the consistency between the demand for money and their supply, it is necessary to implement a course for a gradual increase of money in circulation.

State regulation should be limited to control over monetary circulation.

The formal form of the quantitative theory of money is expressed in the following equation: M\*V = P\*Y, where M is the amount of money in circulation, V is the velocity of circulation of money, (the average frequency with which the monetary unit is used to purchase new goods and services for a certain period of time), P - price level, Y - real output.

The members of the equation on the left side describe the behavior of money used in making transactions, where the velocity of circulation of money with which it circulates in the economy, shows how many times in a certain period of time the coin passes from hand to hand. On the right side of the equation: Y - is the physical volume of goods and services; P - is the price level or the average price at which each unit of the product is sold; Thus P \* Y - is the value of production expressed in terms of money.

If the amount of money (money in circulation) can be expressed as M = K\*C, where K is the number of monetary units, C is the value of the monetary unit, then C = P\*Y/(V\*K).



If we apply this equation to tokens and the Quantor economy, where QNT token will be used to pay for services and transactions on the platform, it becomes clear that C (the value of a QNT token) is directly proportional to P (platform prices), Y (the volume of services sold on the platform) and inversely proportional to V - the velocity of circulation of tokens and K is the number of tokens in circulation.

The development of the platform will promote the growth of the cost of QNT tokens, as in the process of development, Quantor will increase the number and variety of services implemented on the platform by attracting new service providers and users - service consumers, allocating the necessary resources for marketing and promotion.

Creating additional opportunities for privilege users - owners of significant tokens, for example, such as increased levels of access to platform services and tools, the possibility to participate in taking important decisions concerning the development of the platform and investment decisions, various discounts, cashback and other opportunities, thereby stimulating holding of tokens, the platform will restrain the velocity of circulation of tokens.

Quantor will be able to influence the number of tokens in circulation, if necessary, taking decisions on buying out and «burning» a part of tokens, based on the decision of the authorized collegiate body of Quantor, consisting of top management, founders, and holders of large packets of tokens.

The initial number of issued tokens, taking into account the findings of studies on the velocity of circulation of money in developed countries, will be established on the basis of the calculated in the financial model volume of services implemented on the Quantor platform. In the future, the platform will support the number of tokens in circulation in accordance with the volume of services actually implemented on the platform.

For example, if the volume of services implemented on the platform is about \$ 7-10 million per year, then the total cost of services necessary to serve this volume of services and tokens in circulation may be at the level of \$3-5 million, and taking into account part of the tokens saved by the investors, the total value of issued tokens may be at the level of \$7-10 million.



## 8.3 Prospects and metrics

Based on the current capitalization and dynamics of the cryptocurrency market, it is possible to forecast a further increase in the number of market participants and the value of the Cryptocurrency. According to experts' estimates given in the paragraph 2.3 of the White Paper, in the coming years, the growth of the market capitalization of the Cryptocurrency will continue and may reach from several hundred billion to several trillion US dollars.

In view of these estimates, a financial model of the Quantor platform activity has been prepared, which predicts the main indicators of functioning the ecosystem. At the same time, three main scenarios for the project implementation are calculated: Basic, Conservative and Optimistic. The Basic scenario provides raising about \$5 million, Conservative one - about \$2.5 million and Optimistic one - about \$10 million.



The calculations show that in the case of implementation of the conservative scenario, the raised funds will be sufficient to build the platform and ensure break-even point of the project, and in the case of the optimistic scenario, the incomes and profits of the platform will increase in proportion to the invested funds.

The total number of issued Quant tokens will be limited to the specified maximum number. Therefore, with an increase of the volume of services implemented on the platform, the cost of the token will grow in proportion to the increase in the volume of these services.

If necessary, the authorized body of Quantor, which may include the founders and top management of the platform, as well as holders of large packets of tokens, may take decisions on buying off a certain number of tokens for the purpose of «burning» (liquidation), which will also positively influence the increase of the cost of tokens.

### 8.4 Distribution of tokens and raised funds

For the successful implementation of the project and the development of the Quantor platform, the expenses for development of the platform, development and expanding of the ecosystem, including the involvement of quants, industry experts, and external partners, as well as the motivation of the project team, are required.

The funds from the sale of tokens of the Quantor platform will be directed to the development of the platform with additional content and services, payment for legal and consulting services to support pre-sales and token-sales, marketing campaign, entry into and promotion to international markets, support of quants and teams that will create products on the platform (including the transfer of funds to management), the motivation of the Quantor team, as well as possible license and partner deductions. A part of the funds can be reserved for possible legal cases.

The maximum number of Quant (QNT) tokens to be issued is 2,000,000,000. The base cost of one QNT token without discounts is set at \$0.01.

The opportunity to sell out of issued tokens will be limited for a certain (lockup) period, which may depend on the time of receipt or purchase of tokens and the number of received or purchased tokens, but no more than 12 months from the date of receipt or purchase.

In the case of a successful token-sale, some of the raised funds can be reserved in the form of cryptocurrencies and tokens. The reserve fund is planned to be formed from resources received from the sale of tokens that exceeded \$10 million. In case of its formation, the resources of the reserve fund will be frozen by smart contracts and will be allocated in accordance with the stage of their use.



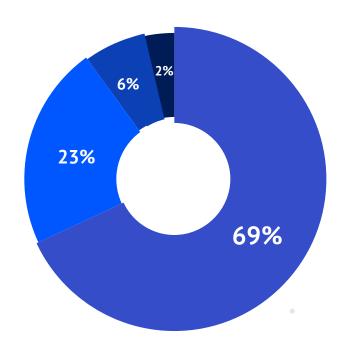
#### The resources of the reserve fund can be used in the following form:

- The Quantor Stimulation Fund. It is planned to regularly stimulate quants to develop new investment algorithms with the possibility of transferring funds under management to the best of them. These solutions can be provided to the best quants and algorithms under particular set of requirements, for example, after taking the particular set of required courses, passing successful backtesting, and paper-trading stages of testing trading algorithms;
- The reserve fund. Reservation of the amount of raised funds for unexpected expenses and legal cases.
- Creation of a resource for investing in the crypto fund of the Quantor platform at a later stage of development.

#### The distribution of tokens.

In the case of the implementation of the Base scenario, the tokens will be distributed as follows:

| Placing on the market             | 69%         |
|-----------------------------------|-------------|
| Quantor team and founders         | <b>23</b> % |
| Advisors and experts              | 6%          |
| «Bounty» - campaign and promotion | 2%          |

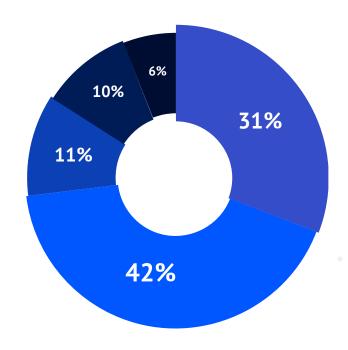




#### The distribution of raised funds.

In accordance with the Base scenario, the raised funds will be distributed as follows:

| Platform development about      | 31%         |
|---------------------------------|-------------|
| Sales and marketing about       | <b>42</b> % |
| Payment for labor of management | 11%         |
| Bonuses for partners and team   | 10%         |
| Other expenses                  | 6%          |



The distribution of tokens can be changed depending on the platform development needs and the results of the implementation of the tokens.

### 8.5 Issue and turnover of tokens

It will be possible to buy Quant-tokens during several phases (pre-sale and token-sale) in several ways, among which there is the purchase of tokens for ETH.

The tokens will not be sold to residents of the countries where issue and sale of tokens are prohibited. The listing and circulation of Quant tokens on crypto-exchanges, in the future, will allow users to purchase, sell and exchange tokens freely.

The first phase of the sales of Quant-Tokens is a pre-sale and it is started in 2st Quarter, 2018.

During this period, the Quant-Tokens (QNT) will be available at a discounted price.

The main phase of the sales of tokens - the token-sale - will begin in 3rd Quarter, 2018.



Pre-sale

Beginning: 28 May, 2018

**End:** 15 August, 2018

Number of available tokens:

100,000,000 QNT

**Supply for Pre-ICO Round 1:** 

30,000,000 QNT

**Supply for Pre-ICO Round 2:** 

70,000,000 QNT

**Accepted currencies: ETH** 

Minimum amount for purchase in Round 1:

77,500 QNT

**Token Price for Pre-Sale Round 1:** 

1 QNT = 0.0065 USD

**Token Price for Pre-Sale Round 2:** 

1 QNT = 0.008 USD

Minimum amount for purchase in Round 2:

62,500 QNT

Soft Cap for Pre-Sale: 195,000 USD

Hard Cap for Fre-Sale: 755,000 USD

#### Token-sale

**Beginning:** 

1st September, 2018

End:

30th November, 2018

Number of tokens available:

1,280,000,000 QNT

**Target Cap for Main Token Sale:** 

10,000,000 USD

Minimum amount for purchase: 10,000 QNT

during Main Token Sale

**Accepted currencies: ETH** 

Token Price for Main Token Sale: 1 QNT = 0.01

USD

Soft Cap for Main Token Sale: 2,500,000 USD

Hard Cap for Main Token Sale: 12,800,000 USD



## 9. Team\*

The Quantor team includes like-minded people and specialists with the necessary experience for the success of the project. The team has a technical and investment background, which includes a successful investment and asset management experience in the financial markets. Experts, advisors and partners of the project add important competencies in specific segments of EdTech and FinTech, as well as practical experience of venture investment and work on the crypto-currency markets.



Serge Bolshakov

Strategic management and business development, finance and investment

Entrepreneur and manager with 20 years of business experience, including startups, and work in the field of investment and finance, including asset management experience of more than \$ 50 million. Serge has higher education in physics and economics, as well as professional qualification in the financial and strategic management field.



**Vlad Buchney** 

COO

Vlad is a founder of Consentus Capital Management, Inc. The company was registered with the Commodity Futures Trading Commission (CFTC) as a Commodity Trading Adviser (CTA) in the US. Vlad was responsible for the trading within separately managed accounts. He was also actively involved in the development of algorithmic trading strategies that used in managed accounts services.



Aden Aliakberov

PR and marketing, bounty campaign

Aden is a student at the Faculty of International & European Studies at King's College London, he actively participates in the public life of the University and the Conservative Party of Great Britain. He has an extensive experience in PR and marketing, including participation in successful political campaigns at the University and the Westminster constituency.



Klim Yadrintsev

Marketing, trading and interaction with exchanges

Graduate of Brighton College (UK). Certified trader in the stock and derivatives markets. Student at University of London Economics. An expert enthusiast with a great understanding of marketing and human behavior.



**Anastasia Everskova** 

Legal support of the project

Private practice (IP, IT and LegalTech).

Education: International Law Institute, Moscow (2009), she has an economic and law backgrounds, strong experience in supporting international clients' services (GroupM, Dentsu/Aegis, IPG, a global media investment management groups); worked with offshore/onshore jurisdictions (Cyprus, Singapore, BVI, Gibraltar, Isle of Man) and supported some other ICO projects.

\*subject to change 39 / 43





#### **Vasiliy Pimkin**

#### Blockchain and it development, programming of smart contracts

Expert and manager with vast experience in blockchain and web product development, business media and publishing.



#### **Maxim Bolshakov**

#### Programming, trading infrastructure and testing

Student of the Department of Statistics, specialty Data Science at the University of Warwick (Great Britain) with extensive experience and programming skills, including development of trading algorithms and testing systems.

#### **Advisers, Experts and Partners\***



#### **Ernest Chan**

#### Adviser

Dr. Ernest P. Chan is the Managing Member of QTS Capital Management, LLC. His career since 1994 has been focusing on the development of statistical models and advanced computer algorithms to find patterns and trends in large quantities of data. He has applied his expertise in statistical pattern recognition to projects ranging from textual retrieval at IBM Research, mining customer relationship data at Morgan Stanley, and statistical arbitrage trading strategy research at Credit Suisse, Mapleridge Capital Management, and other hedge funds.



#### Haksun Li

#### **Adviser**

Dr. Haksun Li is a founder and the CEO of NM LTD., an algorithmic trading research and mathematical modeling consulting company. He was a quantitative trader/quantitative analyst with multiple investment banks. Haksun has worked in New York, London, Tokyo, Singapore and Hong Kong. Dr. Haksun Li is the Vice Dean of the Big Data Finance and Investment Institute of Fudan University, China. He has a B.S. and M.S. in Pure and Financial Mathematics from the University of Chicago, an M.S. and a Phd. in Computer Science & Engineering from the University of Michigan, Ann Arbor.



#### Kirill Ilinski

#### Adviser

Kirill's career started in academia, with PhD in Mathematical Physics from Steklov Mathematical Institute of Russian Academy of Sciences. He is the author of the non-equilibrium arbitrage pricing theory which was covered in "Scientific American", "New Scientist" and other publications. This resulted in the monograph, "Physics of Finance", published by Wiley & Sons in 2000. After his career in academia Kirill worked as a deputy-head of exotics analytics at Chase Manhattan Bank and after the merger co-founded Debt-Equity Relative Value Group at JPMorgan. The group was responsible for hedging of the bank's Global Convertible business and was instrumental for developing models applied to hedge the bank's loan book. After leaving the bank in 2004 Kirill became one of founders of Fusion Group – diversified group of financial companies which comprises an institutional asset manager, wealth management company and retail financial advice consolidator in the UK. Kirill is a frequent speaker at industry conferences on the subject of tail protection, corporate hedging and quantitative volatility strategies.

\*subject to change 40 / 43





#### Mike van Rossum

#### **Adviser**

Blockchain and crypto developer with a decade of broad experience in IT (OS, networking, operations). Mike is working on developing blockchain and trading systems. In his spare time he is focused on open source projects, like Gekko: A cryptocurrency trading bot and backtesting platform. Mike is currently working on "Easy Trading Connect" for ING while also doing work for Bitwala - a Berlin based Bitcoin startup (both on a remote basis).



#### Joseph Wang

#### **Adviser**

Chief Science Officer at Bitquant Research Laboratories. Almost a decade of experience in developing C ++ quantitative finance libraries. A decade and half of working experience in developing a wide variety of commercial software. Over two decades of working experience developing scientific and academic software. Experience includes high performance grid computing, complex numerical supercomputing code, database programming, machine learning, and other systems. Developing quantitative finance models to model Chinese securities markets and the global bitcoin markets.



#### **Andrey Degtyruk**

#### **Expert**

Andrey has been involved in commercial products development for more than 8 years. His most experience comes from web development of highly loaded services, including large electronic trading platforms, and also cooperation with fintech companies: Rocket Internet and several IT startups.



#### Alexander Klimenko

#### **Expert**

Alexander graduated from Moscow Institute of Physics and Technology. Major works in the field of systems programming and cybernetics. Professor at the systems integration and management department of the MIPT. He was involved in FX market research and trading strategies development since 1995. His research interests have included development of the theory of Multidimensional Technical Analysis and practical implementation of technical tools for predicting price movements by using artificial neural networks technology.





## 10. Terms & Conditions

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- The provisions of the current version of White Paper and Technical Paper;
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- Conditions for token sale <u>Tokens Sale Agreement</u>.

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