

tokenbox

White Paper

CRYP2NOVA

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Unique ecosystem for crypto investors, Funds and traders.

With the development of blockchain technology and the rapid growth of the crypto-currency market, new opportunities appear consistently in the field of Investment.

The traditional economy changes its form, new values arise in the digital "world" and a significant role in these processes is played by decentralised technologies, in which cryptocurrencies and digital tokens play a critical role.

Increasingly, they are described as "crypto or digital assets".

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Professionals of the crypto market (portfolio managers and traders) are also often not sufficiently open to potential investors, as they are afraid of the influence of regulators and do not have a set of technical (software) solutions for the most efficient management of funds and interaction with their customers.

That's why we developed the Tokenbox Platform concept - a trust management ecosystem that unites investors on the one hand, and crypto-currency funds in the person of professional managers and traders on the other.

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Table of Contents

1. Introduction **4**

2. Market Analysis **5**

3. Tokenbox Overview **9**

4. Team and Background **15**

5. Technical and Legal Description of the Platform **19**

5.1. The System's Main Modules 20

5.2. Development Platform 22

5.3. Infrastructure 22

5.4. Legal Structure 23

6. The Platform's Tokens and Economic Model **24**

6.1. The Purpose of Tokenization 24

6.2. The functionality and properties of TBX tokens 24

6.3. The economic model of using TBX tokens 25

6.4. The Platform's Token Issue Process (Token Generation Event) 27

6.5. Distribution of Funds Collected During the TGE 29

6.6. Tokenbox Operations 30

7. Road Map **31**

8. Comparison of Tokenbox with Competing Platforms **33**

LIMITATION OF LIABILITY **34**

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1. Introduction

In 2009, Satoshi Nakomoto created a payment system Bitcoin1, based on the revolutionary technology of Blockchain, which provided the potential to completely rebuild the Infrastructure of financial services worldwide[1].

Blockchain is a journal ("ledger") with records of all the transactions, stored on a set of computers, united in a peer-to-peer network (P2P).

All communications within the network use cryptography to reliably identify the sender and the recipient as well as to protect the data.

The key advantage of blockchain technology is its resistance to falsification of records, because the data is stored in a decentralised manner, a potential attacker would need huge hardware resources in order to perpetrate a successful attack.

The Potential applications of Blockchain Technology are diverse: financial services, trade, logistics, certification of rights, elements of public administration.

One of the most promising options for Blockchain Technology is the possibility of creating new crypto assets. The Ethereum platform, which operates as a decentralised virtual machine was a key technological breakthrough in this direction.

The Ethereum platform allows you to create and use smart contracts, as well as to release your own tokens (crypto assets).

A smart contract is a program deployed on a detachment that stores and, on the basis of certain events, ensures the transfer of valuables within that blockchain. These contract packages can be issued as tokens, which can be created with the help of special software code, giving them the properties you and other users require.

Own tokens (crypto assets) can be offered publicly and can be an attractive investment opportunity, while performing many functions: settlement, the ownership of shares, voting rights, etc.
At the same time, it should be noted that Blockchain technology necessitates a wide range of skills from users: in the field of general computer literacy, information security, basic understanding of investment principles. Created out of the Crypto Market infrastructure, it is diverse (exchanges, services for storing crypto assets, media, consultants, etc.), and also fragmented. The knowledge of professional cryptology specialists is critical in order to create and develop the infrastructure that potential investors and users can trust.

We believe that today, an instrument that can ensure the effective management of private and institutional investors' assets on the market and can enable this wider market to enter this market, is a necessity. Tokenbox provides this solution.

[1] http://www3.weforum.org/docs/WEF_The_future_of_financial_infrastructure.pdf (10.08.2017).

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2. Market Analysis

At present, more and more investors and corporations are recognising the true potential of Blockchain technology, and the crypto-active market[1] is growing fast in comparison with classical capital markets. In the first six months of 2017, crypto trade on specialised exchanges increased by more than 10-fold, and in June attained a level of $5 billion, while the total market capitalisation of all crypto-active assets during this period increased from $18 billion to $110+ billion (see Figure 1), representing 600% growth whilst for the same period, the S & P 500 index grew by only 10% (see Figure 2).

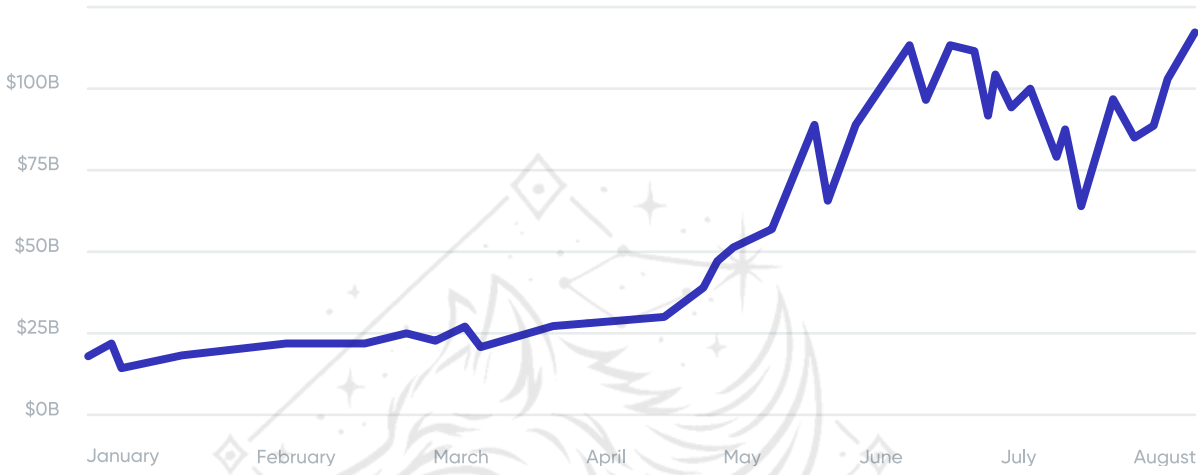


Fig. 1. Dynamics of Cryptocurrency market growth during 2017.[2]



Fig. 2. Dynamics of the S&P 500 in 2017[3].

[1] The cryptocurrency market (cryptocurrency) and tokens.

[2] https://coinmarketcap.com/charts/ (01.07.2017).

[3] https://www.bloomberg.com/quote/SPX:IND (01.07.2017).

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A very important characteristic of the cryptocurrency market is the number of its users and the development of the corresponding infrastructure. According to the Payspace magazine portal, the number of worldwide users who have Bitcoin wallets has reached 41 million. There are nevertheless more modest estimates, and an independent study by Coinbase and ARK Invest Research in early 2017 suggested that more than 10 million people worldwide are Bitcoin owners. Despite this assertion, during June 2017, the customer base of Coinbase increased by more than 25%.

Important data from the report[1] prepared by the Cambridge Centre for Alternative Finance (CCAF) in the second quarter of 2017, suggests that the number of people actively using cryptocurrencies has grown significantly and is approaching the size of the population of a small country:

- The number of active crypto-currency wallets increased from approximately 0.6 - 2.6 million in 2013, to 5.8-11.5 million in 2017 "(twenty-six operators of crypto-currency wallets, including Airbitz, Armory, Bitgo, Blockchain, Coinbase, Greenaddress, Ledger, Jaxx , Myclium, Samourai and Xapo)

- At least 1,876 people work on a permanent basis in the crypto-currency industry and it is likely there are significantly more than 2,000 people, allowing for the fact that the employees of large mining pools and other companies do not provide data on their employees.

- 81% of wallet providers are based in North America and Europe, but these regions account for only 61% of users (31% in Europe and 30% in North America). 20% of users live in the Asia-Pacific region and another 13% in Latin America.

Thus, it is already possible to emphasise the development of the cryptocurrency market on a global scale.
By mid-2017, worldwide, there were already over 80 stock exchanges which trade in cryptocurrencies[2].

The rapid growth of this market attracts not only private investors, but an increasing number of professional participants. Exchange platforms, brokerage and investment companies and funds seek to offer investors access to this market.

Demand for the services of professional asset managers on the cryptocurrency marketplace also offers positive indicators. One good source of information confirming this fact is the Google Trends Service. Below is an analysis of queries about relevant topics by users around the world:

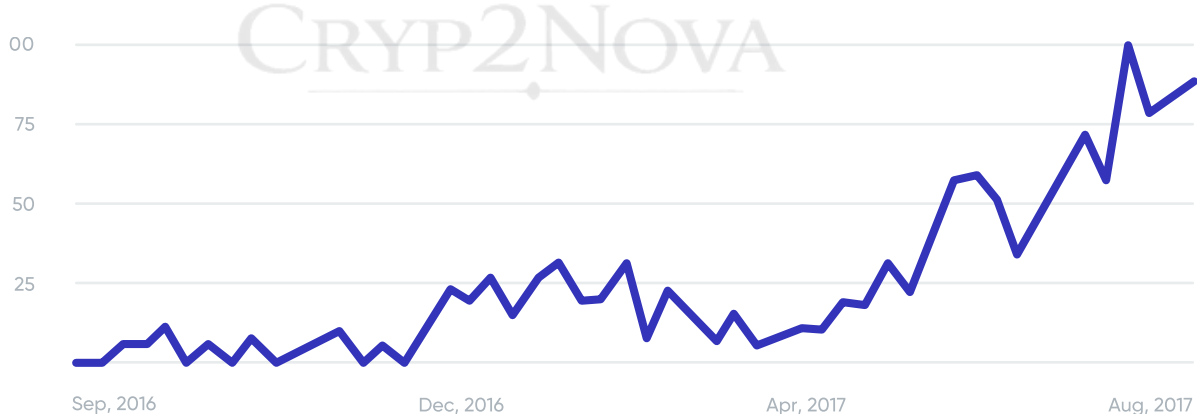


Fig. 3. "Crypto fund" search query dynamic.

[1] https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/alternative-finance/downloads/2017-global-cryptocurrency-benchmarking-study.pdf

[2] https://coinmarketcap.com/currencies/bitcoin/#markets

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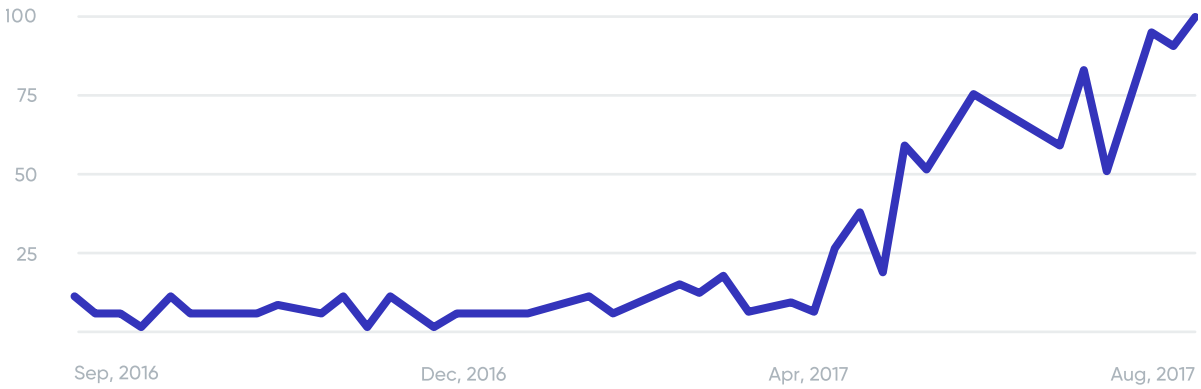


Fig. 4. "Cryptocurrency fund" search query dynamic.

There are various types of funds that already invest in crypto assets (Hedge Funds, Classic ETFs, Closed-End Funds, Venture Capital Funds).

Independent and still a small segment of the market are tokenized funds. The key phenomena here is that investors acquire a share calculated by reference to the assets in the fund, implemented through tokenized smart contracts.

Among the first tokenized crypto-currency funds, which have been built according to the Blockchain technology and smart contracts, is The Token Fund[1] (currently operating), Satoshi Fund[2] (has recently announced that it will close in 2019, and has stopped accepting further investment), TaaS[3] (closed-end fund). We believe that it is tokenized funds that implement the principles of decentralisation and openness in their activities and will become the leaders in a growing market for professional investment management services.

What are the advantages of tokenized funds? Consider the answer to this question, listing the main potential features of tokenized funds:

Characteristics	Description
Class of assets that the fund can invest in	Any tokenized assets (cryptocurrencies, token-shares, tokens-bonds, tokenized rights to raw materials, precious metals, real estate, objects of intellectual property) etc.
Period of operation of funds	Stipulated by terms of the fund, can be evergreen or with a limited investment period and term
Types of funds (investor access)	Open, closed, corporate, private

[1] http://thetoken.io/ (10.08.2017).

[2] https://satoshi.fund/ (10.08.2017).

[3] http://taas.fund/ (10.08.2017).

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Types of funds (investor category)	Any category of investor, regardless of the amount of investment (the restriction to the capacity of the crypto-active market itself). The funds can potentially work both with qualified investors and with small private investors (retail).
Types of funds (management strategies)	Any management strategy (index funds, active management, algorithmic trading, arbitrage strategies)
Receipt and return of investors' funds	In fiat currencies, cryptocurrencies, tokens
The certification of the rights to shares of investors in the fund	In the form of fund tokens. The value of 1 token is equal to the total value of assets in the fund's portfolio divided by the total number of tokens. The fund's tokens, being crypto-assets, can be traded in organised markets. The security of storing the fund's tokens and the authenticity of the transaction history for investors is ensured by the technology of blocking.
Automation of the process for mutual settlements	Receipt of investors' funds, issue of tokens (shares) and reverse process of payment of funds are fully automated: payment processing is connected with the fund's smart contract. The fund commission is also automated with the help of a smart contract.
Automation of assets accounting in the fund's portfolio	The value of assets that are stored on fund accounts, exchange (trade) accounts, including funds reserved for execution of orders, is calculated automatically. The balances are read at addresses (wallets) in the blockchain, the actual market prices from the exchanges are automatically read.
Automation of reporting for customers	Calculation of the actual profitability of each individual client, taking into account the history of all its transactions with the fund. Automatic generation of reporting on the composition of the portfolio, relevant changes, performance indicators related to portfolio management.

According to expert estimates, at the beginning of the second quarter 2017, up to 10% of all funds invested in crypto assets were investment funds, and according to forecasts, their share in the market will continue to grow during the next three years[1].

[1] https://seekingalpha.com/article/4052276-cryptocurrency-funds-arrived-bringing-wall-street-money/ (10.08.2017).

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The rapid growth of the market, coupled with the emergence of cryptocurrency within the legislative framework of an increasing number of countries[1], has naturally accentuated the demand for professional cryptocurrency managers.

The above facts reiterate the need for the creation of an ecosystem depending on trust management - Tokenbox.

We have watched this market development keenly, we have participated in its development, and now it's time to create something unique.

3. Tokenbox Overview

The Ecosystem

Tokenbox is a unique ecosystem that brings together crypto-currency funds under the management of professional portfolio managers and traders on the one hand and investors on the other.

Investors are to be granted access to the best strategies for managing funds on the Crypto market with a high degree of safety in these processes. Portfolio managers and traders, including professional teams, are to receive a ready-made "box" solution for the creation of their own tokenized funds, operating professionally, transparently and within the applicable legal framework. The technical solutions offered by Tokenbox enable the fund management process and its development in an efficient and technologically safe way.

Thus, investors can make their choice between different legal and audited funds, according to the inherent ratio of risk and return.

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[1] Switzerland, Japan, Singapore, England, Finland, Australia, individual EU countries.

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See Section 7 for an explanation of the planned rollout of Tokenbox functionality and benefits. Not all benefits described below will be available immediately upon launch.

Tokenbox provides the following benefits to fund managers and traders:

1. Engagement with the Tokenbox site within the relevant legislative infrastructure. Tokenbox is an "umbrella" platform hosting funds and traders in a market place format and providing legal incorporation functionality for the creation of funds to facilitate the issue of their tokens and their trading activities in a legal structure, providing funds and traders with efficiencies to optimise their legal spend.

2. KYC/AML. Tokenbox will perform or arrange for KYC/AML on investors on behalf of funds and traders, as well the deployment and use of the requisite data verification systems.

3. Management of mutual settlements with investors using their own token, on the basis of smart contracts.

> A trader decides to launch a fund named "Mark & Robert Coin Fund".
> In this case, a smart-contract is created for their fund, issuing the ERC-20 standard on the Ethereum platform.
>
> Traders have determined that the token should have the ticker "MRCF".
> This token is an analogue of the fund unit, and its value depends on the profitability and dynamics of changes in portfolio valuation, not on the number of investors and the number of tokens which have been purchased. Investors can purchase the MRCF token, store it, transfer it and present it to maturity. Also, tokens can be accessed on organised markets - exchanges.

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4. Access to internal and external liquidity. Using internal liquidity facilitates:

    - Reduction of transaction costs. If it is necessary to conduct separate operations for the sale and purchase of assets, funds and traders do not need to pay fees for the deposit or withdrawal of funds from the platform's internal accounts to external trading platforms. Also, internal liquidity will be provided with a smaller commission, compared to the commissions charged by third-party services.

    - Increase the level of security. The use of internal liquidity minimises the volume of crypto assets that are temporarily controlled by external services (exchanges). The risks of technology crashes and delays in the operation of lock-nets during the transaction period are reduced.

    External liquidity is provided through access to organised markets (exchanges) with the use of corporate accounts available as a consequence of the fund incorporation functionality, providing increased transaction limits.

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5. Software for investment management.
   We can confirm the 360 degree effectiveness of our software products (they are provided optionally depending on the needs of the particular fund or trader):

   - A trading terminal that is adapted to the needs of funds and traders using different strategies (portfolio investment, algorithmic trading, arbitrage operations, active intraday trading, etc.);
   - Built-in analytical tools (predictive modules, back-testing and forward-testing of parameters of trading strategies, sentiment analysis, etc.);
   - Customer Line and Customer Analytics (for example, fund reports, information messages for customers, as well as analysis of the dynamics of incoming and outgoing investments, the regional affiliation of clients, etc.)

The technological infrastructure of the future Tokenbox Platform has already been developed and is being actively used by The Token Fund. It consists of several main modules:

- smart contracts for the tokenization of funds;
- processing of receipts of investments and the payment of funds to investors;
- system for calculation and control of the value of the fund's tokens;
- a parser that controls the volume of crypto assets on the balance sheets and follows their market value;
- Individual profitability calculation system for each fund client;
- a purse for storing ETH and tokens of the ERC-20 standard.

6. Access to the market of ICO-campaigns: centralisation and corporate approach enable the purchase of the project's tokens on beneficial terms (bonuses, discounts and guaranteed purchase). Tokenbox plans to provide tokens with access to the platform and also offers tokenization, processing, escrow, security audit, legalisation services.

7. Marketing support within the overall Tokenbox strategy as well as access to a global investment community with a substantial number of stakeholders.

8. A rating system that entitles investors to make a balanced decision while choosing a particular fund. The rating system allows even a small capitalisation fund to compete with larger participants, having a similar rating. The rating system enables funds to avoid a situation where investors anticipate particular result from a fund which actually contradicts their strategy.

   For example, the fund's strategy includes in the portfolio only cryptocurrencies with a total capitalisation exceeding $ 5 billion. The investor therefore should not expect transactions involving less liquid crypto-assets and, accordingly, riskier investment decisions.

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What types of funds can be created on the Tokenbox platform?

As well as Crypto-Currency Funds, the following types of funds can also be created:

- investment funds with active portfolio management (analogue - Mutual fund);
- index funds, including a token traded on the exchange (analogue - ETF);
- funds which follow active trading strategies, including Algotrade, robotised trade.

Tokenbox provides the following options for private and institutional investors:

1. A secure, integrated gateway to the banking system for entry into a decentralised economy utilising fiat[1] currencies and classical payment systems. Inside the platform, investors can exchange fiat currencies for cryptocurrencies and tokens, as well as conduct reverse operations.

2. Multi-currency wallet with the ability to safely store digital assets. The client has the opportunity to create a universal wallet for basic cryptocurrencies and tokens. For the convenience of users, there are two types of wallets for clients:

    - "Lite" wallet: in this version of the wallet, the keys are stored on the platform itself with the user's consent;

    - "Professional" wallet: when utilising this type of wallet, the keys are stored by the user.

Currently, various development teams are working on projects related to advanced decentralised services for exchanging cryptocurrencies and tokens.

In the future such systems will allow the creation of a different ecosystem of trust management which will be able to manage investors' funds without acquiring the right of temporary "possession".

The Tokenbox team monitors the emergence of new technological developments and intends to offer users the most advanced tools.

[1] Fiat currencies: USD, EUR, CHY, CHF, etc.

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3. Multi-level Security System[1]:

    - All funds and traders, registering in the system as asset managers, are required to undergo due diligence;
    - Best practises in the field of computer security, crypto active storage technologies are applied;
    - A regular audit of the security system is conducted with the involvement of industry-leading consultants and experts;
    - Fund managers and traders do not acquire the right to "own" the assets of a fund and can only create "light" wallets to access client funds (with the storage of access keys on the platform) for the purposes of settling trades, and all assets managed by the traders are owned by the incorporated fund entity or entities and may be held in safe custody by a third party custodian under the direction of Tokenbox.

4. The “rating system” and the "advisory" service that support the investor’s decision in selecting the appropriate investment fund on Tokenbox platform.

    The main criteria for the rating system:

    - profitability of the strategy (retrospective for the selected period, shown at different market phases, etc.);
    - risk management (classification of assets, share of capital for the transaction, maximum drawdown for the selected period, etc.);
    - a description of the strategy (transparency, credibility, history of strategy implementation).

    The "Advisory" service will run iteratively optimised algorithms using investor selected parameters to inform the investor of the optimum criteria for choosing a fund, according to the size of the investment, investment period, experience, risk appetite etc.

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An additional means of protecting the interests of investors will be a built-in risk management system. Tokenbox platform is independent of funds and traders and it is intended that the built-in risk management system will be a pre-trade compliance system which verifies proposed trades against limits pre-specified by the fund and prevents funds or traders from making transactions that contradict the adopted strategy (if such limitations are provided in the framework of the fund's implementation).

Thus, the Fund's investors can be confident that the fund chosen by them follows the adopted strategy that clients consider optimal in the ratio of risks and potential returns.

[1] Security is one of the key strategic benefits supported by the Tokenbox team.

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5. Convenient, modern and intuitive interface. Tokenbox provides mobile, desktop and web versions for various operating systems.

6. Access to ICO-campaigns for investors. Tokenbox is an open platform and projects conducting ICO/ITO/TGE post the data about the project in order for the platform users to participate.

   Investors have the ability to invest in ICO/ITO/TGE as well as to buy coins/tokens of projects, including from reserved volumes (guaranteed acquisition at a convenient time for the investor).

If you are interested in the details of the technical implementation of this project, we suggest that you refer to **Section 5 "Technical description of the platform"**.

In the next section we examine the team's experience and competence to implement a project of the proportions of the Tokenbox Platform.

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4. Team and Background

The Tokenbox team has experience in successfully launching projects in the field of investment management in crypto assets. The current team activity: The Token Fund and CryptoTrader — a popular application from Zerion.

THE TOKEN FUND

The Token Fund[1] is a tokenized investment fund that allows investment in cryptocurrencies and tokens of a decentralised economy. The management of the fund, mutual settlements with investors and the system of controlling the actions of portfolio managers on the part of investors are managed using the technology of blockchain and smart contracts.

All processes within the fund are transparent, and can be audited through Smart Contracts on the Ethereum platform, the source code of which is publicly available, as well as the provision of special software. Participants join the fund by purchasing tokens issued by a smart contract upon receipt of investment and shares. The fund itself works by analogy with classic Mutual Fund, investing in a wide range of quality crypto assets. Return on investment is automated and there is no minimum or maximum entry threshold for investors.

The Token Fund was officially launched on March 24, 2017, and the capitalisation of assets under the management of the fund now exceeds $ 2 million, with a first quarter US dollar yield exceeding 227%.[2]

A majority of the Fund's clients are from Europe, the Middle East as well as other regions of the world. Currently, the fund does not operate with customers from the United States.

ZERION

Zerion[3] (formerly EtherionLab) is a fast growing fintech company specialising in the creation of applications based on blockchain (including DApps). The Zerion team has extensive knowledge in the field of programming and experience in developing smart contracts on the Ethereum platform. The team has successfully provided technical and organisational support to the following projects: Waves, TrueFlip, Humaniq, Po.et.

The company entered the ICO market in 2015, assisting with the ICO platform Waves.

While developing the project, we also realised that the solution of such ambitious tasks requires the involvement of leading experts in such areas as:

- legal and licensing;
- investor relations;
- information and cyber security;
- big-data and machine learning;
- verification of customer data (KYC & AML).

The advisory council of the Tokenbox Platform includes well-known experts with a deep understanding of these modern technologies.

[1] http://thetoken.io/ (7.07.2017).

[2] Information taken from the site https://thetoken.io/ as of July 23, 2017.

[3] https://zerion.io/ (7.07.2017).

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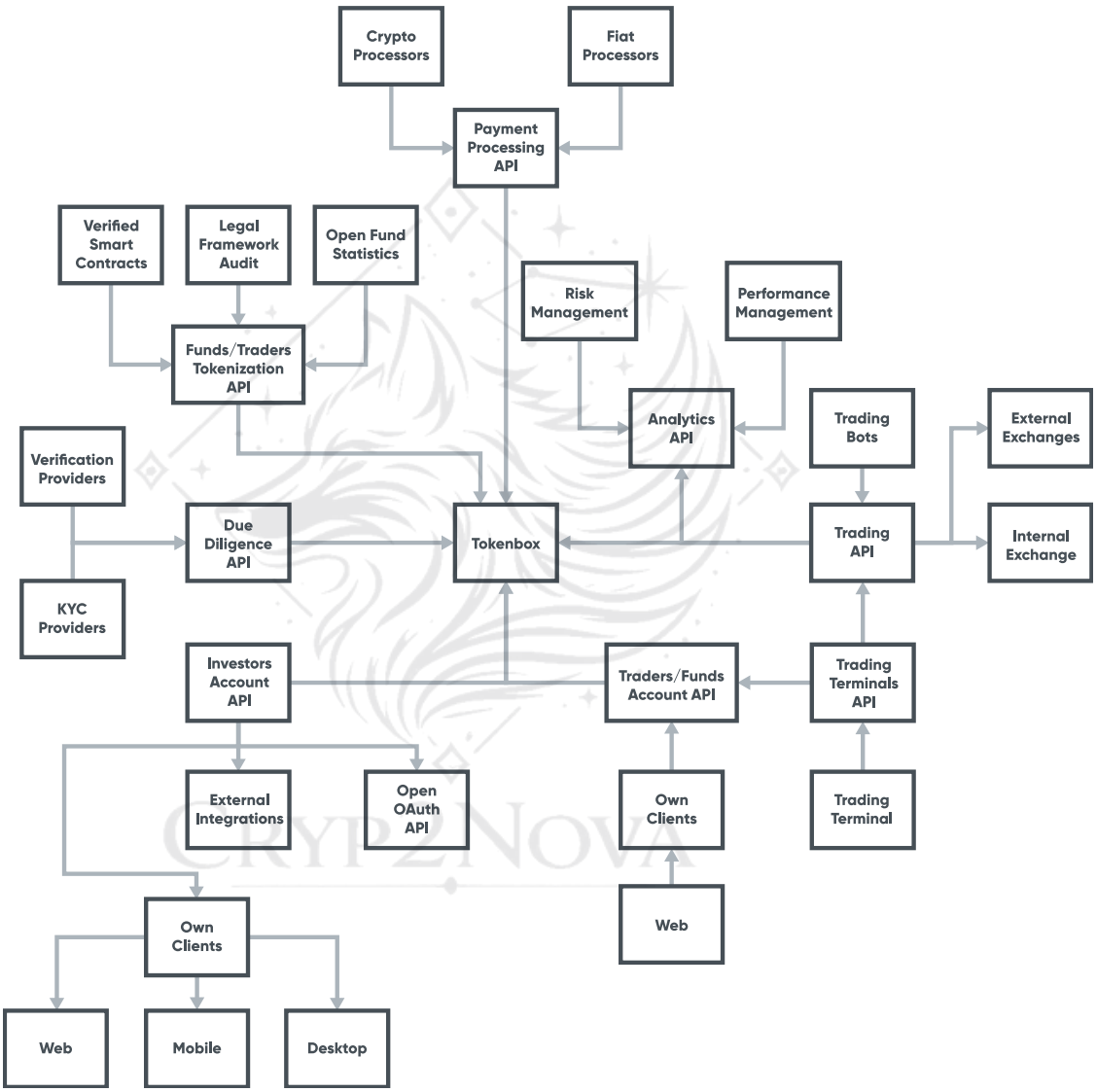
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5. Technical and Legal Description of the Platform

A key feature of the Tokenbox platform is "transparency", providing API access for other developers. Ecosystem partners can trace operations of the internal API's and interactions of its structural elements and modules. After conducting a security audit the client code will be available in OpenSource.



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5.1. The System's Main Modules

1. **Investors**
2. **Funds and traders**
3. **Due Diligence**
4. **Payment processing**
5. **API for trading**
6. **Analytics**
7. **Tokenization**
8. **The Repository**

1. **Investor**

    - General API for the platform's clients. Own clients are built on this API and plugged in external integrations. App building available using open APIs based on the Tokenbox client base;
    - For investors, a KYC/AML procedure is being implemented by various partners;
    - For investors, there is also the opportunity to securely backup private keys outside their own account on the platform, and then import them into the platform;
    - The registration process will be available for mobile and WEB platforms, as well as specialised programs for PCs and laptops;
    - Third-party integrated sources will be able to transmit user registration data via encrypted communication channels, according to pre-established parameters which match the created user account identity codes.

2. **Funds and traders**

    - Funds and traders access to the platform is provided through the web interface and personalised trading terminal (Windows / Mac OS);
    - For all funds and traders, multiple authorisations are created in order to protect investors' funds;
    - Each object interacting within the ecosystem acquires its unique API identifier. This means that the action of each user — whether an investor or a trader — can be traced. A characteristic feature of the system is the assignment of APIs to internal contracts regulating the interaction between them. Thus, the probability of erroneous transactions, illegal actions on the part of the fund or trader is reduced. The mutual relations of participants in the system become strictly regulated, understandable and "transparent" for each of the parties.

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3. **Due Diligence**

- Due Diligence is conducted by Tokenbox and its advisors and service providers in order to identify and review regulatory issues;
- Information provided by partners in the Due Diligence process can be treated confidentially and is stored outside the platform. Only the results of such verification will be publicly available to participants of the ecosystem;
- The main instrument for maintaining the "interest" of investors and funds and traders as well as creating a favourable trading environment is Due Diligence, checking all documentation received from investors and funds and traders, monitoring their compliance with the declared requirements. The verification process is not clearly established, and is subject to constant review, with the result that DD requirements may change over time. Each change of this kind will be documented.

4. **Payment processing**

- Developed payment processors for different cryptocurrencies;
- A gateway for PCI DSS cards is being developed;
- Processing of the settlement of fiat currency transactions is not directly related to the Tokenbox system, and will be processed by third-party payment processors that comply with international information security standards and regulatory requirements.

5. **API for trading**

- The platform provides a unified API for working with various exchanges;
- Transactions can be made on the internal exchange with a clearing product;
- Trading robots, being an active trading tool, also receive their API and interact with traders within the system.

6. **Analytics and risk management**

- The analytical engine for the platform has been created using SnowPlow[1];
- Logging of all transactions is open and periodically recorded on the block account;
- The built-in analytics module will also be responsible for rating traders and funds, considering the many different indicators characterising the trader's/fund's success, their experience, success trend according to different time intervals, etc.;
- Research to develop and implement an internal risk management system has commenced.

[1] https://snowplowanalytics.com

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7. **Tokenization**

- For the tokenization (transfer of the Fiat and cryptographic currencies into tokens), the activities of the funds of traders use smart contracts based on “Solidity”[1];
- These contracts deduct the commission from operations on the "parent" contract of the Tokenbox platform;
- A set of smart contracts is open and available for public audit.

8. **The Repository**

- All private keys are placed in a separate storage behind the contour of the platform, which allows to guarantee a higher degree of their safety;
- Access to the storage is regulated by PCI DSS standards;
- Investors' funds, excluding daily liquidity, are stored on multi-signature purses behind a closed loop.

5.2. Development Platform

The platform is based upon a set of microservices written in Python/Java. Separate interfaces to allow interaction between each group of Users and partners of the system are utilised. Tokenization of all funds occur on Platform Ethereum based on the ERC-20 token.



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5.3. Infrastructure

The infrastructure of the platform is built using Amazon Web Services. The description of the infrastructure uses Docker containers. The databases and their replications are built using PostgreSQL and Elastic Search.



[1] https://solidity.readthedocs.io

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5.4. Legal Structure

The Tokenbox platform is owned and operated as a web-based marketplace by a company controlled by Tokenbox LLC.

Tokenbox will offer traders an out-of-the-box solution for incorporating a fund entity via a pull-down service hosted on Tokenbox supported by a third party incorporation service provider, or in an alternative currently being considered, access to segregated cells of a licensed Tokenbox company to use as their fund entity, if they are not incorporated before coming to the platform.

The funds issuing tokens via the Tokenbox platform will be required to be compliant with relevant regulations pertaining to operating and issuing securities in collective investment schemes. In some jurisdictions this will require the funds to hold the appropriate license or to have a relationship with a licensed fund administrator. For example, we expect that the funds issuing tokens via the Tokenbox platform will be regarded as Alternative Investment Funds for the purposes of the Alternative Investment Funds Directive in the European Union. The funds will be responsible for issuing disclosure documentation supporting the issue of their own tokens to a level that complies with the information disclosure requirements for collective investment schemes in the relevant jurisdictions. Tokenbox will supply compliant template material to assist with this process, as part of its out-of-the-box solution.

Subject to the development road map set out in Section 7, Tokenbox will either contract with a third party provider of Alternative Investment Fund management, and offering, services, or develop its own licensed capability to support the offering by funds and traders of tokens via the platform.

TBX, which gives access to the platform functionality, will be issued by Tokenbox LLC. The currency and fund tokens attributable to the Reserve Pool (as described in Sections 6.2 and 6.4) will be held by Tokenbox LLC in a dedicated wallets.

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6. The Platform's Tokens and Economic Model

6.1. The Purpose of Tokenization

The experience that our team has accrued through the development of The Token Fund, opens up opportunities to enhance and streamline the business processes for crypto funds and related investment activities.

We invite partners and investors to join the Tokenbox ecosystem by participating in the Token Generation Event (hereinafter - TGE).

6.2. The functionality and properties of TBX tokens

TBX tokens are utilised on the platform, thereby providing funds and traders with access to the Tokenbox operations as described below.

This methodology for utilising a TBX token can best be attributed to several "rules":

1. A fund or trader who wishes to operate their own fund on the platform and take advantage of all the facilities provided, acquires TBX tokens and deposits them on the platform. These funds in the TBX format, are placed in the portfolio managed by the fund or trader and are valued in the portfolio like any other assets;

2. Any fund using the platform is required to maintain 5% of all assets in its portfolio in TBX. For example, a fund or trader plans to invest $1 million of assets through the Tokenbox platform. In this case, the fund must deposit and include at least $ 50,000 in the TBX portfolio, which represents 5% of the entire portfolio value;

3. The value of all assets of the fund (including TBX) for compliance with this ratio is calculated in US dollars;

4. The value of assets in the fund's portfolio fluctuates over time as the value of market assets also fluctuates, according to the transaction volume of incoming and outgoing funds from other investors. At the same time, TBX tokens should be constantly present at all times in the portfolio of any fund on the platform, representing at least 5% of the fund's portfolio valuation. This principle ensures that all operational assets of the platform can be used. In the event that TBX share in a portfolio drops below 5%, the fund will reject investments until the TBX share again equals or exceeds its 5% threshold;

5. Funds can acquire TBX tokens on stock exchanges in order to meet the TBX 5% threshold. It is also possible to reduce the TBX share to 5% if the price of TBX increases, raising its value in the total portfolio of the fund.

This model for utilising platform tokens has several useful aspects:

1. Funds and traders can accurately determine how many TBX tokens they should purchase in order to access the Tokenbox infrastructure;

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2. TBX token demand reflects the level of platform development, as well as the dynamics of the number actual ecosystem token users;

3. TBX token manipulations are complex. On the one hand, managers and traders are interested in lower TBX price, which allows them to take advantage of the platform's functionality at a lower price. One the other hand, undervaluation is counterproductive, because a lower valuation limits the amount of assets available for management.

TBX token is a utility-token that provides access to the platform's operation.
TBX liquidity can also be supported by the Platform's Reserve Fund. In order to understand this source, kindly refer to the distribution plan for funds that are attracted during TGE **(see Section 6.5)**.

6.3. The economic model of using TBX tokens

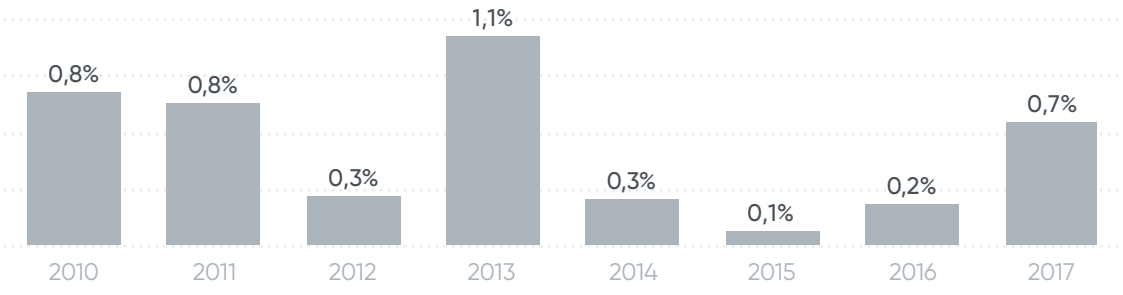
In order to estimate the quantity of TBX tokens that can be effectively used on the Tokenbox platform, we have created a "predictive economic model" based on the overall volume of the investment on cryptomarket.

In order to achieve this, we have assessed the crypto-currency market capitalisation. The optimum level achieved in September 2017 has been adopted as the "base indicative level", and we believe that this value (=±$ 172 billion) may well be exceeded even in 2017.

The cryptomarket's growth rate according to our first year forecast is thus calculated according to the dynamics of 3 previous periods with similar trends, and this indicates an average growth rate of 342% per annum. We have furthermore reduced our annual market capitalisation growth rate by 50%. We believe that this assumption is justifiable, because when any market sector "matures" one should not expect historic growth rates to prevail.

We have developed an approach to test this hypothesis based on the comparative analysis of the crypto market and the Bitcoin price in 2020.

Many predictions have been made regarding this, and out approach has this been based upon statistical information. If the growth trend of the bitcoin price, which has been prevalent for seven years, continues, this leading crypto currency will have revalued up to =±$250,000 by 2020 and the Bitcoin market capitalisation will exceed 4 trillion dollars. Thus, even when we reduce the forecast growth rate of bitcoin by 50% or more, we believe that our conclusions are following a logical trend.



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Fig. 5. Bitcoin average DAILY value change.

Market share of funds and professional traders is a critical aspect that also needs careful consideration in relation to the entire cryptomarket.

Conservative estimates suggest that in 2018 that their share will exceed 10% of the overall market[1].

Currently there is no crypto-platform available that can provide professional fund managers and traders a ready-made solution with which they can create their own tokenized cryptofund.

Tokenbox actually provides this solution.

The Tokenbox team possesses the necessary knowhow and experience after successfully launching and operating The Token Fund, and unlike most competitors, we are ready to offer technical solutions to the traditional investment market.
This positioning should ensure that Tokenbox platform will maintain a realistic market share of at least 1%.

The Tokenbox project started to evolve at the stage of market formation, and in our opinion, this competitive advantage justifies the growth rate that we forecast for the Tokenbox platform.

Key Market Indicators	**2017F**	**2018F**	**2019F**	**2020F**	**2021F**
Cryptocurrency market cap., MM USD	172 300	761 566	2 063 844	3 828 430	5 465 084
Growth rate of C-market, %, Y-to-Y		342%	171%	86%	43%
Tokenbox Highlights					
Share of tokens & cryptocurrencies under management of funds, %		10%	12%	15%	18%
Assets (crypto-currencies) under management of Funds (AUM), MM USD		76 157	247 661	574 265	983 715

[1] https://seekingalpha.com/article/4052276-cryptocurrency-funds-arrived-bringing-wall-street-money/

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Growth rate of AUM, %, Y-to-Y			225%	132%	71%
Tokenbox market share, %	0,00%	1%	3%	5%	8%
AUM on Tokenbox platform, MM USD		762	7 430	28 713	78 697
TBX share in portfolios		5%	5%	5%	5%

6.4. The Platform's Token Issue Process (Token Generation Event)

TGE is conducted by a company Tokenbox LLC incorporated in the jurisdiction of the Cayman Islands.

Token generation process (ticker - TBX) is organised using a smart contract on the Ethereum platform. Thus, TBX is a token of the ERC-20 standard and can be stored by investors using different wallets and services.

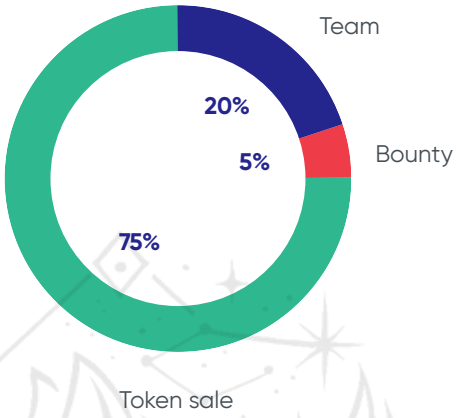
The TGE is planned on the basis of a limited release (Issue).

In total, no more than 31,000,000 TBX will be released. The total number of issued tokens is dependent on the amount invested. The total number of tokens after the TGE cannot be increased.

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The cost of 1 TBX for investors at all stages of the TGE is 1 USD



The release of TBX tokens and their delivery to the wallets of the TGE participants is made within 10 days after the completion of the TGE. Representatives of The Token Fund and Zerion are monitoring the smart contract and the addresses, to which the collection of cryptocurrencies are made, using multi-signatures. It is also planned to attract escrow agents.

Token acquisition is possible using crypto-currency: BTC and ETH.

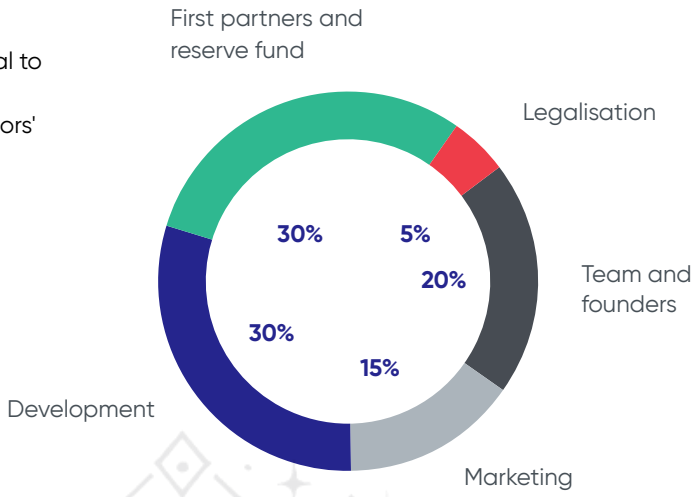
The Token TBX will be quoted on several cryptocurrency exchanges[1] and will have market pricing.

[1] Each quote will be announced by our analysts.

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6.5. Distribution of Funds Collected During the TGE

The TGE is planned in total to attract no more than **20,000,000 USD** of investors' funds.



30%

Investments to connect the first fund managers and the formation of the Reserve Pool

Funding of up to 6,000,000 USD will be sent as initial investments to the funds selected by the Tokenbox team. These funds (traders) undergo due diligence. Funds are recruited based on the characteristics of the strategy employed and its associated risks.

It is planned to select up to 10 funds with optimally diversified strategies. These investments should also be considered as the marketing costs necessary to attract professional management partners to the Tokenbox platform.

Organisation and launch of the first funds on the platform contribute to the rapid growth and development of the user community.

Thus, the first partners Tokenbox (funds and traders) have the opportunity to receive significant management funds at the start of the platform (alpha version).

Please contact us if you would like to become one of the first Tokenbox funds.

30%

Development

Back-end, template smart contracts, web-interface for the platform, trading terminal, mobile and desktop applications.

15%

Marketing

Attraction of investors and funds to the site.

20%

Team and project's founders

Including the costs of research work.

5%

Legalisation

Company registration and appropriate licensing procedure.

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Amount of funds managed by the selected funds is dependent on the initial funds raised and made available for investment out of the Reserve Pool as indicated above. The revenues and assets of these funds, if necessary, can be used to maintain the liquidity of TBX tokens, as well as to extend the functionality of the Tokenbox platform. The Reserve Pool will own tokens issued by the selected funds via the Tokenbox platform. Trading by the initially selected managers is anticipated to generate revenue for the "Reserve Pool" during the alpha version of the platform. Primary purpose of the Reserve Pool is the provision of commercial support for the creation of the Tokenbox ecosystem.

6.6. Tokenbox Operations

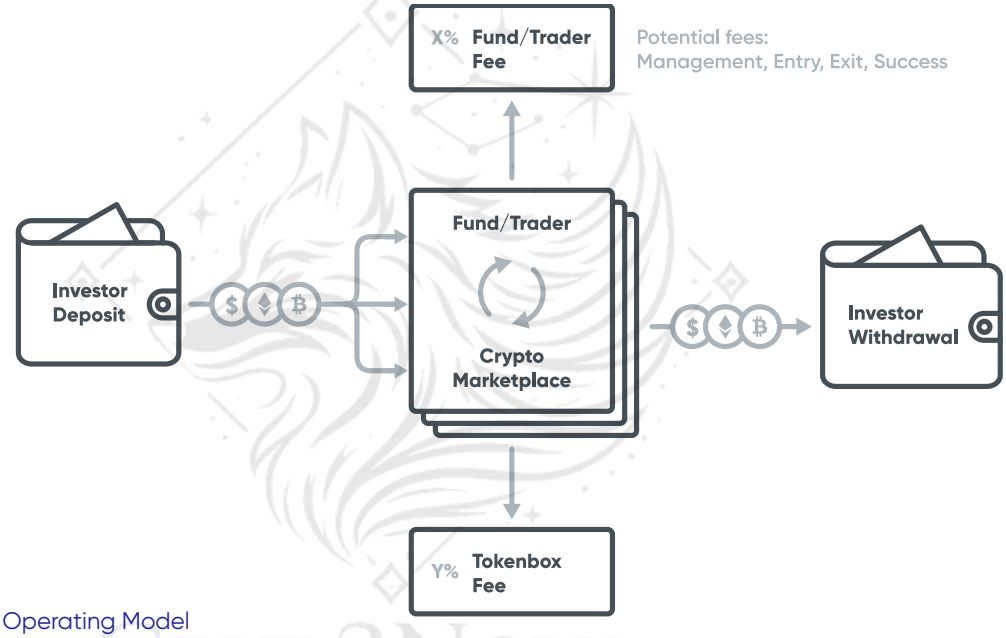


Fig. 6. Operating Model

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Funds and traders in the Tokenbox ecosystem may charge certain commissions:

1. The fee for "entry" (for example, 2% of the invested funds is charged as a commission);
2. Payment for "withdrawal" (for example, 2% of funds withdrawn by the investor from the fund are charged as a commission);
3. Management fee (for example, 2% per annum on the net asset value of the fund's portfolio, collected in equal shares during the year);
4. Fee for successful management (for example, an annualised 20% of the profit received after a month or a quarter is deducted as a reward);
5. Combinations of options 1-4.

Part of the commission charged by the funds is utilised as the operating income of the platform Tokenbox. Another source of Tokenbox's revenue will be[1] the provision of internal liquidity to funds and traders at a regressive rate (for example 0.25%), depending on the volume of the transaction. External liquidity (exchanges) is provided according to the retail commission size.

[1] Upon development of Tokenbox later stages, see Section 7

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7. Road Map

TGE (crowdsale)
November 2017

Listing on exchanges
December 2017

- **Registration and licensing**
- **Multi-currency wallet**
- **Trading terminal for Fund managers**
- **KYC module**
- **Payment processing for fiat currencies**

Q1 2018

Alpha- & Beta- versions of the Tokenbox platform:

- **Tokenbox platform web-interface**
- **Tokenization for Funds**
- **Parsing system and back-end**
- **Built-in analytics tools**
- **Rating System**
- **ICO marketplace**
- **Own licensed capability for Funds and Traders on the platform within the "umbrella fund" (sublicense)**
- **Investments for selected partners (funds & traders)**

Q2 2018

- **Tokenbox platform launch**
- **New partners and investors on the platform**

Q3 2018

- **Internal risk management system**
- **Mobile and desktop applications**
- **Customer analytics module**

Q4 2018

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Tokenbox Platform will develop according to the pace of investment.

$3 000 000

- Registration and licensing
- Multi-currency wallet
- Trading terminal for fund managers
- KYC module
- Payment processing for fiat currencies

$10 000 000

- Tokenbox platform web-interface
- Tokenization for funds
- Parsing system and back-end for funds
- Built-in analytics tools
- Rating System
- ICO marketplace
- Own licensed capability for funds and traders on the platform within the "umbrella fund" (sublicense)

$20 000 000 — Full Functionality

- Formation of the Reserve Pool
- Internal risk management system
- Mobile and desktop applications
- Customer analytics module

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8. Comparison of Tokenbox with Competing Platforms

Currently, there are at least two known blockchain projects seeking to create an ecosystem that unites investors and funds in the Crypto Market: Melonport and ICONOMI.

Project	Tokenbox	ICONOMI	Melonport
Tokens	Utility Token (access to the platform's functionality)	Token-share (weekly dividends, voting rights)	Application's Token (access to the platform's functionality)
Integrated Wallet	✓	✓	✗
ICO Marketplace	✓	✗	✗
Fund/Trader Registration	Fund/trader passes mandatory due diligence	The decision on registration is made by ICONOMI (the criteria for which are not disclosed)	Only Melonport owners can create a fund
Fund/Trader Tokens	✓	✓	✗
Fund/Trader Status	Acts legally on the platform (the Platform is a multi-fund)	Legally not connected with the platform	Legally not connected with the platform
Rating System for Funds	✓	✗	✗
Integrated Analytic Instruments	✓	✗	✗

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The information set forth above does not imply any contractual relationship and may be incomplete. The information is subject to continual updates and we are not obliged to give you any notice of the fact or content of any changes.

While we make every effort to ensure that all data submitted in the White Paper is accurate and up to date at the point in time that this version has been disseminated, the proposed document is no alternative to consulting an independent 3rd party opinion.

Tokenbox LLC, its directors, officers, employees and associates do not warrant or assume any legal liability arising out of or related to the accuracy, reliability, or completeness of any material contained herein.

Persons who intend to purchase TBX should seek the advice of independent experts before committing to any action, set out in this White Paper.

You do not have the legal right to participate in Tokenbox digital asset public sale if you are a citizen, a resident of (tax or otherwise), or a green card holder of the United States of America (including Puerto Rico, US Virgin Islands, and any other protectorate of the United States), Singapore, People's Republic of China or other representatives of the United States, Singapore, or the People's Republic of China or any jurisdiction whether the issue of TBX would be illegal or subject to any requirement for registration, licensing or lock-up.

"A representative of the United States, Singapore, People's Republic of China" means - a naturalised person resident in any of those jurisdictions or any institution, organised or registered in accordance with the laws of any of those jurisdictions. US citizens living abroad may also be deemed "US representatives" under certain conditions. According to the laws of the United States citizens of the United States living abroad can also be considered as "US Representatives" under certain conditions.

The regulatory status of tokens and distributed ledger technology is unclear or unsettled in many jurisdictions. It is difficult to predict how or whether regulatory agencies may apply existing regulation with respect to such technology and its applications, including the Tokenbox platform and TBX. It is likewise difficult to predict how or whether legislatures or regulatory agencies may implement changes to law and regulation affecting distributed ledger technology and its applications, including the Tokenbox platform and TBX. Regulatory actions could negatively impact the Tokenbox platform and TBX in various ways, including, for purposes of illustration only, through a determination that the purchase, sale and delivery of TBX constitutes unlawful activity or that TBX is a regulated instrument that requires registration of TBX itself, or the licensing of some or all of the parties involved in the purchase, sale and delivery thereof. The Tokenbox platform may cease operations in a jurisdiction in the event that regulatory actions, or changes to law or regulation, make it illegal to operate in such jurisdiction, or commercially undesirable to obtain the necessary regulatory approval(s) to operate in such jurisdiction.

Because TBX and tokenization of all funds (Fund Tokens) is based on the Ethereum protocol, any malfunction, breakdown or abandonment of the Ethereum protocol may have a material adverse effect on TBX or Fund Tokens. Moreover, advances in cryptography, or technical advances such as the development of quantum computing, could present risks to TBX, Fund Tokens and the Tokenbox platform, including the utility of TBX or Fund Tokens, by rendering ineffective the cryptographic consensus mechanism that underpins the Ethereum protocol.

As with other decentralised cryptographic tokens based on the Ethereum protocol, TBX and Fund Tokens are susceptible to attacks by miners in the course of validating TBX or Fund Token transactions on the Ethereum blockchain, including, but not limited, to double-spend attacks, majority mining power attacks, and selfish-mining attacks. Any successful attacks present a risk to the Tokenbox platform, TBX and the Fund Tokens, including, but not limited to, accurate execution and recording of transactions involving TBX or Fund Tokens.

Hackers or other malicious groups or organisations may attempt to interfere with the Tokenbox platform, TBX or the Fund Tokens in a variety of ways, including, but not limited to, malware attacks, denial of service attacks, consensus-based attacks, Sybil attacks, smurfing and spoofing. Furthermore, because the Tokenbox platform is based on open-source software, there is a risk that a third party or a member of the Tokenbox team may intentionally or unintentionally introduce weaknesses into the core infrastructure of the Tokenbox platform, which could negatively affect the Tokenbox platform, TBX or the Fund Tokens.

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