



Karma

Economy of Trust

**cross-border p2p-scoring and lending
any assets, collaterals and interest rates
empowering trust-based communities
all over the world**

Contact information:

<https://karma.red>

Glossary

P2P lending (person-to-person lending, P2P-investing, peer-to-peer lending, person-to-person lending, social lending) — direct loan from an investor to a borrower without traditional financial institutions like banks.

SME — representatives of small and medium enterprises.

Fiat assets (fiat money) — the currency, which has the position of the only legal payment means in the government. The internal cost of fiat money is either very low or non-existent. Nowadays, most banknotes are fiat, including the USA dollar. Its cost is guaranteed only by governmental authority. Fiat currency is not connected to the gold, it is not supported by anything at all.

Escrow account — is a special holding account where all property, assets, documents or money are held until certain actions are implemented or fulfilled. Agreed amounts are transferred by a bank (or other guarantors) to the contracted recipients of the deal once the contractor it has fulfilled all its liabilities to the other side. In many ways, escrow accounts are similar to letters of credit or bank cells. The letter of credit is a more archaic instrument, which requires written communication to the bank, while the escrow account is more convenient for remote work

Scoring — a customer rating system, which is mostly used by banks and Microfinance companies. A computer program which uses mathematics and statistical methods to analyze the answers given to questions of a financial nature, financial history and known credit obligations by potential borrowers in their applications for credit.

Hedging (insurance, guarantee) — making special combinations of deals for protection against currency fluctuation.

Option — a contract which gives the buyer the right, but not the obligation, to buy or sell an underlying asset at a specific price on a specific date.

Forward contract ([derivative financial instrument](#)) — an agreement in which one party (the seller), undertakes to transfer the goods on a certain day ([the underlying asset](#)) to the other party (the buyer) or execute an alternative monetary obligation, and the buyer agrees to accept and pay this underlying asset.

Blockchain — a sequenced chain of blocks containing information, built according to certain rules.

Conditionally — a contract with prepayment and delivery of an asset in the future. In the contract, the parties may come across counterparty liabilities in the amount that depends on the value of the underlying asset at the time of fulfillment of the obligations. For example, if an asset has become more or less expensive than a certain amount, one party may be required to pay or reduce the payment.

Cryptocurrency — a digital accounting unit, which has decentralized issue and accounting. The function of these systems is based on the technology of [blockchain](#). Information about [transactions](#) is usually not encrypted and is available in clear form. To ensure the stability of the transaction chain database, [cryptographic](#) elements are used.

Crypto asset — a digital derivative financial instrument that has the properties of a cryptocurrency issued by a company or a group of individuals to attract financial resources for the implementation of prospective projects or buying assets for capitalization, where the crypto asset is an instrument guaranteeing the identification of the owner of a crypto asset with the fulfilment of the issuer's obligations to the crypto agent.

Token — a cryptocurrency or a crypto asset that a company puts up for sale to collect money for its project. Tokens can play the role of stock, bonds, donations, unique identifier, and access to software or information.

ICO (Initial Coin Offering, ITO, ITG, token sale) — a mechanism for raising funds through token sales, from investors using either crypto or FIAT currencies.

API (application programming interface) — a set of ready-made [classes](#), [procedures](#), functions, [structures](#) and [constants](#) provided by the application (library, service) or operating system for use in external software products.

Big data — tools, approaches and methods for processing structured and unstructured data in order to synthesize new ones.

Neural network — a computer program that imitates the work of the human brain. It drives the input data through a system of 'neurons' - simpler programs interacting with each other and then produces a certain result of calculations based on this interaction, as well as the experience and errors of past program launches. A neural network is a self-learning system.

1. Idea

Karma is a P2P platform for creating socio-economic relationships between people, regardless of location, around the world.

There is a noticeable imbalance in the world where there are countries where there are many citizens with available free capital and investors have a lot of money, while at the

same time, billions of people live in environments with severe shortages of money and disadvantageous credit rates.

Excessive regulation and centralization of banks have led to the fact that investors receive a negative return, taking inflation into account. Moreover, up to 80% of small and medium-sized business owners in many [JU1] countries do not actually have the opportunity to obtain a loan for business development in banks.

In many countries, \$100 USD is a large amount of money that can change the lives of several people and give a much needed boost to their creativity and the development of their business. In other countries, \$100 USD is a cheque for dinner in a restaurant or even a treatment at a beauty salon.

The task of Karma is to create an ecosystem with a rich variety of relations between participants. People will have the opportunity to exchange their available resources directly with other people, with and without interest, for a period of time to be determined between peers.

Any participant can play any role: investor, borrower, guarantor, lawyer, auditor, or seller.

Due to the open market, people can choose which types of economic and social relationships are better suited to different situations. Due to direct interaction, people will enjoy the benefits of transparency coupled with high speed transactions.

Karma is created to simplify the exchange of resources and finances, accelerate the development of the economy and unite clusters of mutual trust around the world.

2. Background

Evolution of the financial sector

18th-20th Centuries



Historically, banks have played a connecting role between investors and borrowers. Investors lent money to the bank, and the bank gave out loans at a higher rate, providing a revenue stream for the bank.

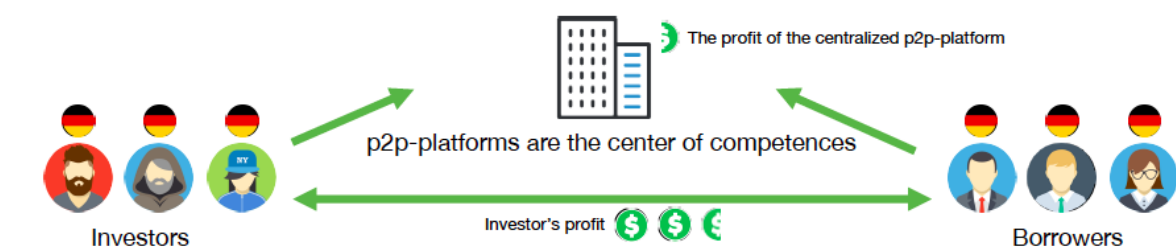
Investors and borrowers did not interact directly because investors did not have enough competencies.

Therefore, they delegated this to the banks:

- legalization of credit relations;
- assessment of borrower's financial position
- return of funds in case of default

The disadvantages of such a scheme are obvious, and centralization in the form of banks has led to the fact that the world's finances are distributed unevenly. 1% of the population owns more than 90% of the resources, and billions of people have almost no access to financing or banking in its simplest forms. In addition, about 20 to 30% of the GDP is [spent on banks and insurance companies](#), while the salaries of top-managers of the financial sector are millions of dollars per year.

21st Century



P2P platforms first appeared in the 21st century. The main idea is to make the direct interaction between the investor and the borrower possible. The volume of the P2P lending market began to grow rapidly because people responded positively to the new model.

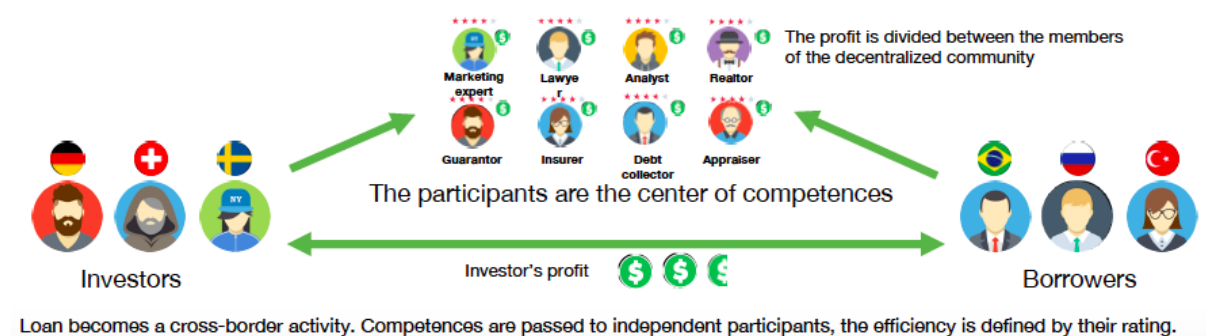
First, there was the first step towards the decentralization of financial services. Each investor used his firsthand experiences, knowledge and competencies to make decisions about investing in a particular business. For example, if an investor liked and understood the catering sector, he would lend to companies in this sector. It is extremely difficult for banks to keep narrowly qualified specialists from all areas on staff, so banks tend to stick to financing a small circle of large corporations.

Second, banks are very limited by governmental legislation. Therefore, the issuing of loans is often reduced to seeking loan applications that meet the requirements of the regulator. In many countries, banks do not lend to small and medium business (SME), and access to financing from such enterprises is conditionally blocked. In this respect, private investors are much freer.

Third, the speed of decision-making. The process of obtaining a loan from a bank can take anywhere from several weeks to several months. In Russia this period takes, on average, 2 months. The process of obtaining credit on a P2P platform is much faster and easier. Therefore, an increasing proportion of high-quality borrowers from SMEs have moved from traditional bank lending to modern and progressive P2P.

Fourth, is its effectiveness. In many banks, very old methods of working with a high degree of manual labor are still being used. This greatly affects both the speed of decision-making, and the quality of the analysis of borrowers' solvency. As a result, over the past 10 years, P2P-platforms have been actively taking away some of the market share of traditional banks. The winners have turned out to be entrepreneurs who received a channel for access to money, and investors who were able to receive a decent income, observing the elementary rules of diversifying their investment portfolios.

Future



With all the advantages of P2P-credit platforms, there are also a number of disadvantages:

1. In most cases, they are closed inside one country.

2. Participants of the platform can play either the role of an investor or a borrower. All other roles are centralized and non-transparent.
3. A limited set of assets that can be left as collateral or on credit.

The Karma project creates a new level in the development of the financial sphere: an open community for the creation of social and economic relations. Any existing financial institution, cooperative or P2P-lending platform can become a part of this ecosystem too.

The following bullet points are the main areas of development in Karma's P2P platform:

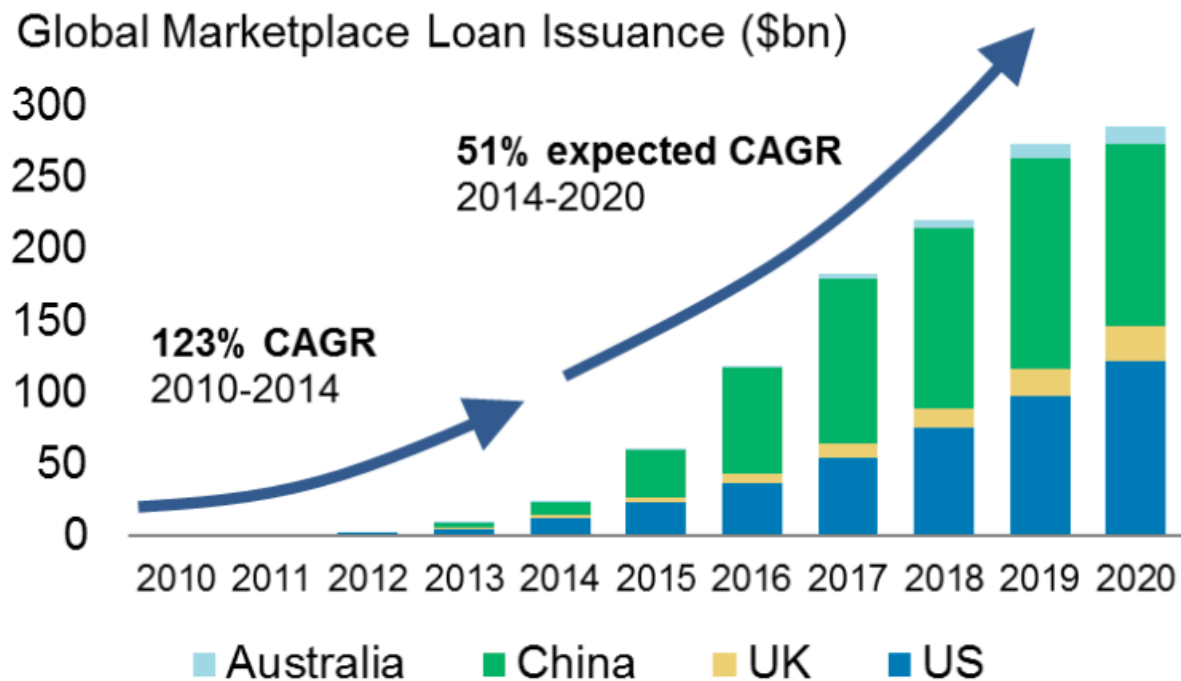
Development of cross-border capital exchanges. Increased liquidity of resources around the world and interest rate adjustment. We will create opportunities for investors from countries with zero interest rates: scoring borrowers from emerging markets will allow investors to get a higher return in comparison with investments within their regions. We create opportunities for entrepreneurs from countries with expensive money, opening access to capital.

Establishment of networked communities where decentralized groups of people accumulate competencies in scoring, insurance, portfolio management and other financial services. Members of the community value their reputation, and therefore approach each transaction individually, with the desire to do their best at work.

Creating an open market for access to funding. Currently, attracting money is a complicated, non-structured process. We want to make the capital market transparent and accessible to those who have proven themselves in the role of a quality borrower. Thanks to the Karma decentralized ecosystem, people will be able to determine interest rates, collateral volumes, return dates and types of assets used as collateral or credit for various types of transactions.

3. P2P Market Analysis

P2P lending is one of the most promising and fastest growing areas of the financial markets. According to conservative estimates published by Morgan Stanley, this market will grow to almost \$300 billion per year by 2020.



Source: Company Data, Morgan Stanley Research

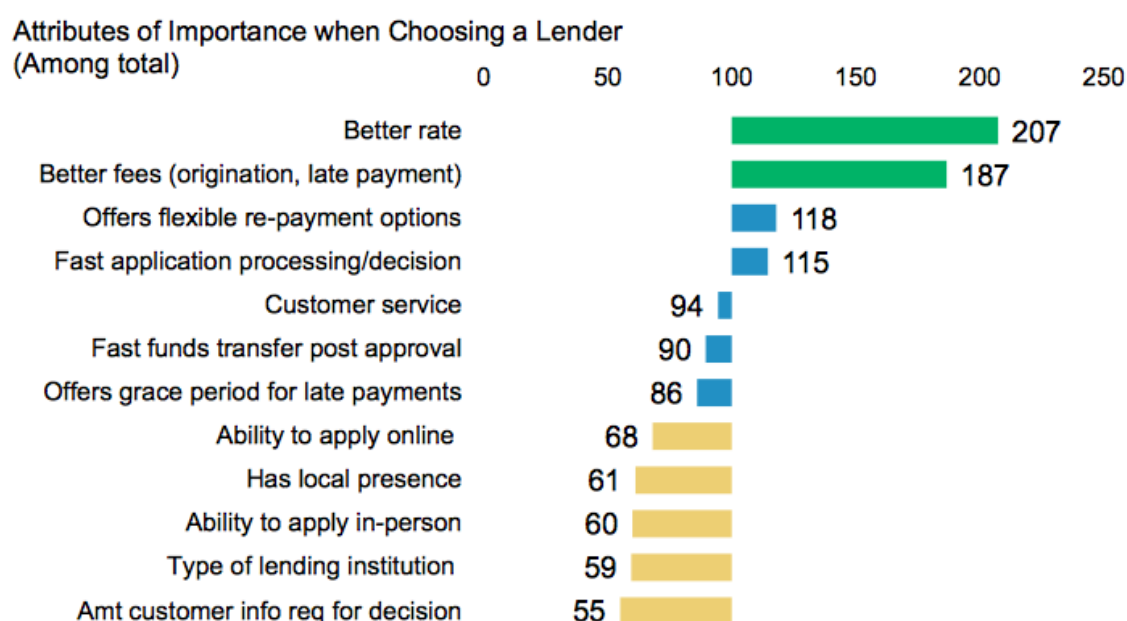
Great potential is possible due to the low starting point and simplicity of the idea. In the United States, the volume of the P2P-lending market in the total mass was less than 1% for 2015, while the volume growth was colossal: 123% year-on-year.

Advantages of direct lending are obvious: rates are lower, the speed of obtaining a loan is higher, and an open market makes lenders and borrowers more transparent and contractual. In countries where more than 3 billion people live together, the rates on loans reach 20-30% per annum and higher. According to the World Bank, more than 2 billion people do not have access to banking services. For example, in Africa, banks are considered a service for privileged people, and the commission for Western Union money transfers from Europe to Africa are 20%.

In developed countries, investors are actively looking for opportunities to investing their money with noticeable profitability. According to Morgan Stanley and AlphaWise, the main criteria for choosing financial services are:

- interest rates
- the possibility of deferred payment
- minimal commission fees
- flexible lending conditions
- the speed of registration

Banks give ground to P2P platforms almost in all parameters.



Source: Morgan Stanley Research, AlphaWise

Some of the most notable players in the P2P-lending market are Kiva and Lending Club. 1.6 million investors and borrowers are registered in the Kiva system. According to statistics, 97% of loans were paid to investors. Moreover, the project allocates investments for borrowers with extremely low income in the poor regions of Asia, Latin America, Africa and Asia. Loans worth more than one billion USD have been issued through the platform.

Lending Club is a legal entity operating within the United States. According to their statistics, only 6% of loans have to be restructured, and only 2% of loans result in default. The remaining 92% of loans are paid on time. Due to the clustering of borrowers by risk groups and various interest rates for different clusters, the total return on investment is 6 times higher than the yield on a deposit in the United States. The volume of loans issued by Lending Club amounts to billions of dollars.

P2P crediting has proved itself as a working financial instrument. At the same time, it is underestimated and has great potential for development.

4. Market Volume

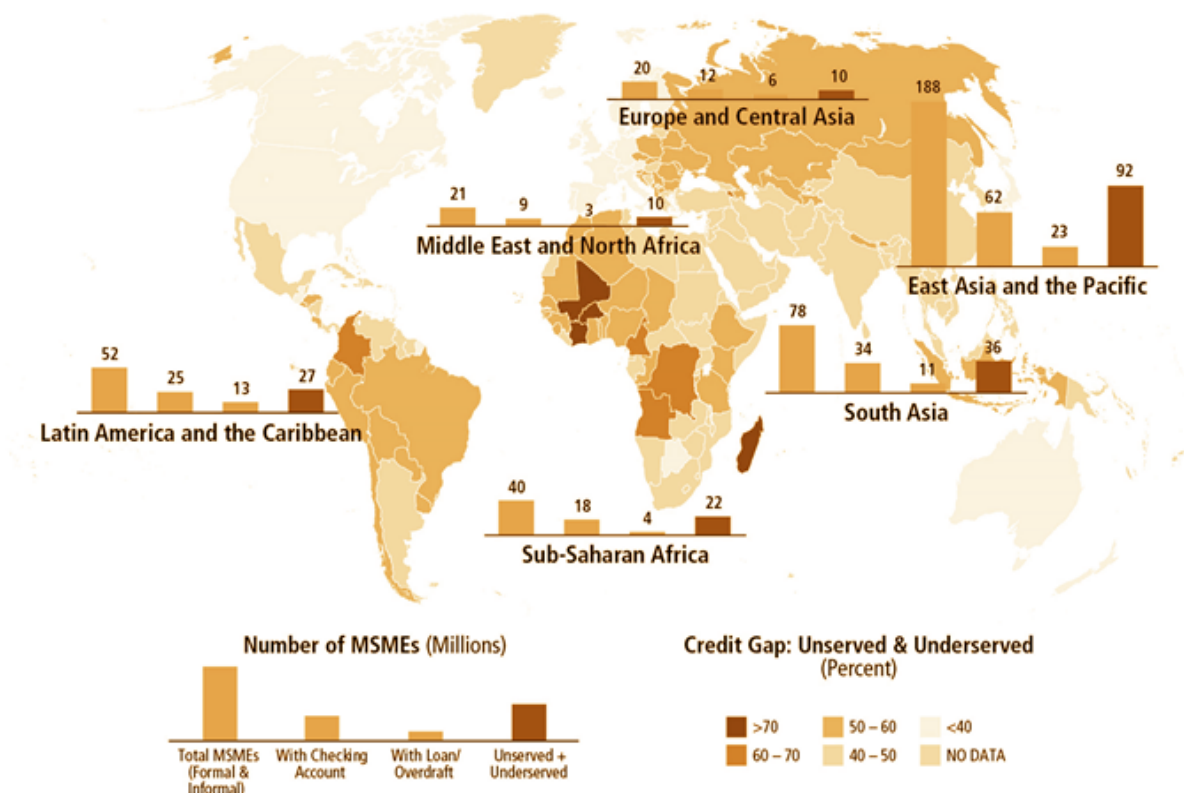
Around 7 billion people live on the Earth, and every year the population continues to grow by 2%. Even though the majority of the population lives in very poor countries, the general increase in welfare and the correction of social imbalance is continuing.

New opportunities are opening, access to the Internet is expanding, entrepreneurship support programs are appearing, and in the end, more people want to start a business.

There are already hundreds of millions of entrepreneurs in the world, and their number is growing.

The goal of Karma is to become a global platform for sharing opportunities and resources. According to the World Bank statistics, there are 365-445 million small and medium-sized enterprises (official and unofficial) in developing countries. These employ up to 60% of the employed population and create up to 40% of world's GDP. In the future, in emerging markets, 4 out of 5 jobs will be generated by SMEs.

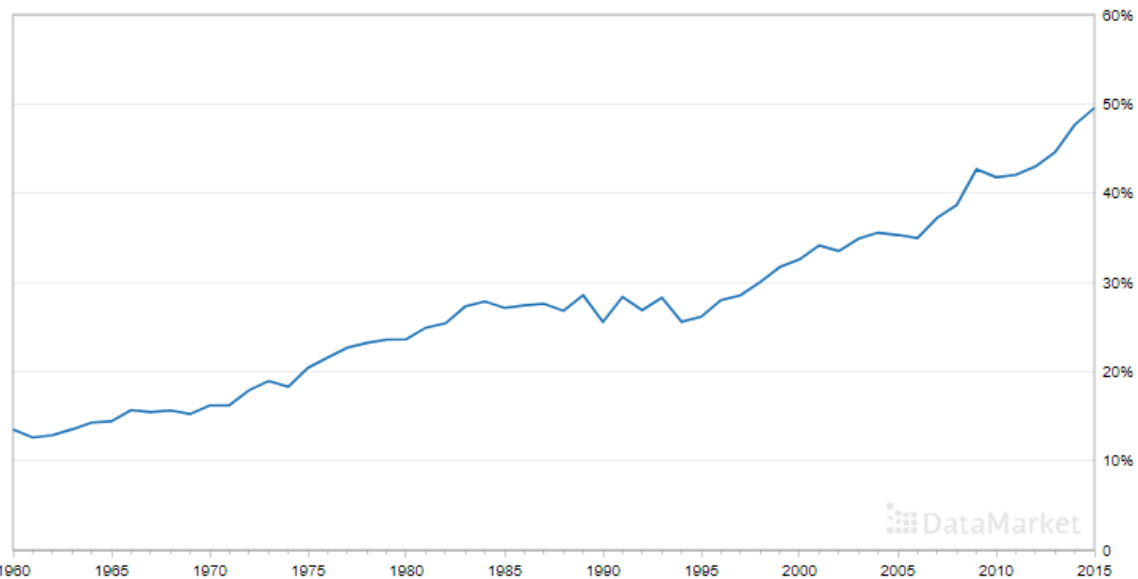
Up to 70% of SMEs do not have access to bank lending, especially in emerging markets. **According to World Bank, the shortage of borrowed capital in small and medium-sized businesses is about 2.1 - 2.6 trillion USD.**



Source: <http://www.worldbank.org/en/topic/financialsector/brief/smes-finance>

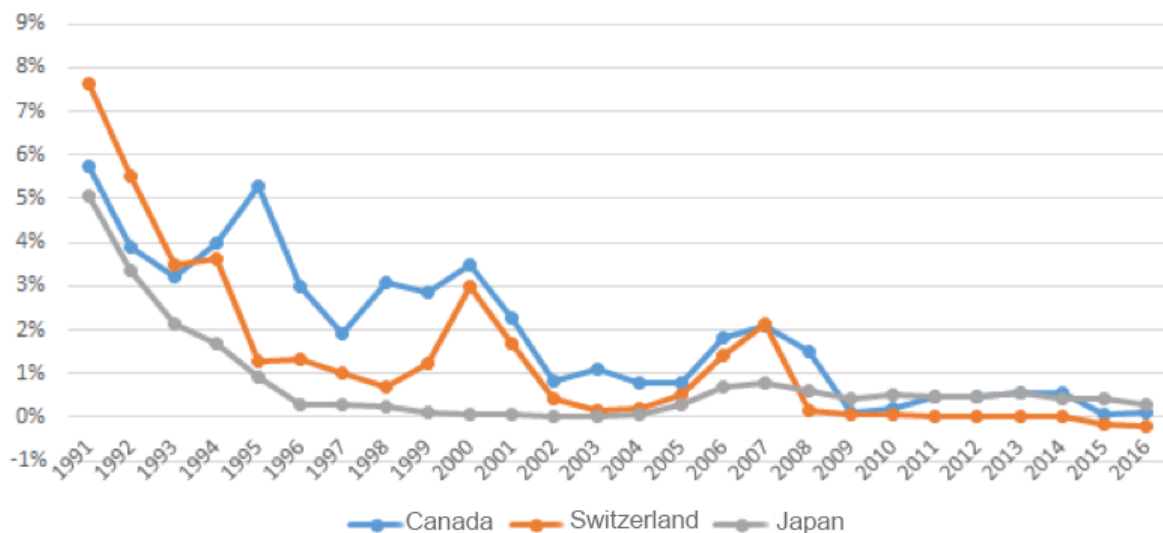
The volume of bank deposits in the world is about 40 trillion dollars, and rates on most deposits are practically zero or even negative. With such parameters, the idea of Karma becomes extremely relevant and makes the potential volume of the market virtually limitless. Karma will attract new capital in SMEs with adequate rates, offering investors a more interesting return.

The ratio of deposits to GDP (%)



Source: datamarket.com/data/set/28m2/bank-deposits-to-gdp#!ds=28m2!2rr3=o&display=line

Deposit rates in developed countries go to zero



Source: data.worldbank.org/indicator/FR.INR.DPST?contextual=aggregate&end=2016&locations=JP-CH-CA&name_desc=true&start=1991

5. The main features of Karma

Decentralization of roles

In Karma, each participant can play any role: borrower, investor, insurer, guarantor, collector, portfolio manager, lawyer, or any of the roles which will appear in the ecosystem in the future.

Every user has a 'Karma' rating, and over time, people will seek out partners with higher ratings. In the beginning, Karma will independently perform a number of roles and will be one of the key players in the ecosystem. At the same time, Karma's main task is to delegate these roles to the community members. Karma gives freedom of action in choosing and creating roles.

Here are the main roles at the start of the project.

Investors:

- Can select loan applications of interest or submit their own prospectus /portfolios for individuals or companies looking for investment.
- Can be pooled to co-finance projects.
- Motivation:
 - Earn money financing interesting projects.
 - Fulfill a social mission, giving resources to people and companies on preferential terms.
- The investor submits an application aimed at potential loan applicants defining a number of parameters: the interest rate on the loan (from 0 to N), the desired level of collateral (from zero to N), the type and size of provided resource (crypto asset, fiat currency, security etc.), the loan due date (from 1 week to the 'back when you can' format), and more.

Lenders

- Can apply for a resource request and accept applications to provide investment.
- Motivation:
 - Implement projects
 - Develop businesses
 - The lender applies for money.

Guarantors

- Increase the probability of a successful loan repayment.
- They can connect to transactions and vouch for the lender with their property.
- Motivation:
 - Get a reward for a surety
 - Social mission (bail for close people).
 - Improved reputation and bonus in the event of a successful loan repayment.

Scoring agents

- Provide tools for scoring borrower applications.
- They can provide their scoring by any parameters they find appropriate, based on their mathematical model or expert opinion.
- Motivation:
 - small fixed payment for the calculation of data;
 - % of the transaction in case of successful loan repayment;

- % in case of default;
- % in case of loan transfer to collectors.
- Minuses are calculated from scoring agent tokens. If the agency has zero tokens left, it loses its status until it replenishes the deposit.
- Pros/cons of Karma are similar to the pluses/minuses of tokens.
- Payment of scoring agents motivation is taken equally from the investor and the lender: the investor is underpaid, and the borrower overcharges.
- Mechanism:
 - The borrower can choose the scoring of interest (or several), and ask them for scoring their application. This will increase the application attractiveness for investors.
 - The investor can order additional scoring.
 - Karma will independently develop its own scoring, and connect independent appraiser-partners.
 - Importantly, a scoring agent can act as a person and the program that connects to Karma by API.

Analysts

In the future, an institute of local offline experts (analysts) will be created for the analysis of the creditworthiness of the borrower. They will personally get acquainted with them and study their project upon the request of a potential borrower. This institute will be useful because the expert will be able to make sure that the borrower is a living person with good intentions and sufficient experience. Additionally, analysts can come across economic objects for their inspection and primary analysis, conduct market research and competitive analysis. The higher the rating of the analyst, the more confidence there will be in his calculations.

This service is already in use when renting Airbnb accommodation. One of the most important trust factors on Airbnb is the ticked 'Checked by Airbnb.' The essence of the check is simple: the Airbnb delegate arrives at the apartment, makes an audit, takes a photo and communicates with the owner. If all is well, a 'Checked by Airbnb' badge appears on the site of the apartment owner. Such badges allow you to get onto a separate list of trusted hosts, more prominent display of the search results, and generate much more trust among the community members.

Sellers

- Attract new members to the system for their referral link.
- For loans by the lender, the pros and cons of tokens and reputation are similar to scoring agencies. Remuneration to sellers for attracting borrowers is paid only upon borrowers fulfilling their obligations.
- If the seller attracted an investor, he receives a percentage of each loan issued by this investor during the year into a deposit and into Karma.

Collectors

- Ensure local collection of debts (important in cross-border transactions) by any legal means in the territory of the lender. From negotiation to litigation including the sale of collateral.
- Each collector has the right to appoint any percentage for recovery of a debt, depending on the complexity of the situation.
- In contracts, threshold values of delinquencies are fixed in advance, after which the investor has the right to apply first to the guarantors, and in case of failure of the guarantors, to the collector.
- When a debt collector is contacted, a default is declared (deductions from deposits and from the Karma of all participants in the transaction).
- The collector signs an electronic contract with the investor, after which he has the right to act on behalf of the investor.
- There are two possible contract formats for choosing parties:
 - As a result of debt collection, the collector retains the agreed %.
 - The collector can buy a debt with a discount which he can then pursue himself.
- If the customer is satisfied with the services of the collector - collectors receive a plus in Karma. If not, a minus.
- If an investor or a borrower wants to sell a loan, then they can put the offer into public access. Collectors can offer their terms for the repayment of a problem loan. Investors can choose the best conditions.
- Interestingly, there are already online collectors, for example, <https://techcrunch.com/2017/03/28/collectly-debt-collection/>

Note:

- The creators of Karma sincerely believe that the collection is the most extreme measure that can be in the ecosystem.
- According to MFI statistics, in many countries, the value of the collection is comparable with the value of the collected debts or even exceeds it. Only with an ideally established workflow can a legal collection bring noticeable profitability.
- The need for collectors arises when a person enters the system with the desire to cause damage to others. But the very essence of the project implies that people in it participate voluntarily, understand the risks, and accept the fact that they act in their own interests, and those of the community.
- For details on actions in case of non-payment, look below in the corresponding section.

Insurers

At the moment we see two types of insurance in the platform: credit risk insurance and currency risk insurance.

Credit risk:

- Pay insurance to investors in case of default. Get a premium for insurance from investors.
- They can ensure from 1 to 100% of the risk.

- This type of activity may be interesting for professional participants. Insurance from private investors without collateral will not have value.
- The higher the insurer's security, the higher the premium for insurance. With 100% security, the premium is maximum.
- In case of defaulting on a loan:
 - If the insurer pays compensation to the investor in the agreed amount:
 - The insurer gets a plus in Karma.
 - The insurer inherits from the investor the right to collect obligations. So, he becomes an investor with the possibility of transfer the credit to the collection.
 - If the insurer does not pay the compensation or pays it in part (the deposit was not enough):
 - The insurer receives a minus in Karma.
 - The investor can sell the right of claim to the insurer to the collector or form a claim to the court.

Currency risk:

- The insurer undertakes to cover the loss from changes in the exchange rate to the investor. For this, the Insurer receives a premium from the transaction.
- They can ensure from 1 to 100% of the risk.
- This type of activity may be of interest to professional participants. Insurance from private investors without collateral will not have value.
- The higher the insurer's security, the higher the premium for insurance. With 100% security, the premium is maximum.
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Example of a deal with foreign exchange insurance:

- The investor keeps money in USD, the borrower needs a loan in RUB. The loan rate is 20% per annum in RUB.
- The investor chooses the option 100% foreign exchange insurance.
- The loan amount is 60 million RUB (1 million USD at the rate of the Central Bank of the Russian Federation for the day of the transaction). The rate is RUB / USD - 60. The loan period is 12 months. The body of the loan is returned in the last month. The monthly payment is 1 million rubles every month.
- The insurer offers the investor to "fix" the exchange rate at the level of 65 RUB / USD for all operations. The difference of 5 USD for 1 USD is the premium of the insurer for the risk.

- On day A, the borrower pays to the investor a percentage of the loan. The rate for this day is 58%. The investor must return to the insurer the difference between the rate of 58% and 65% relative to the amount of payment.
- On day B, the borrower pays a percentage to the investor, at the rate of 65%. Neither the investor nor the insurer pays anything.
- On the day B, the borrower repays the payment and the loan body to the investor. Rate RUB / USD 70. The insurer compensates the investor for the difference between the rate of 65% and 70% with respect to both payments.
- As a result, the investor in fact, received all cash payments at the rate of 65%. The total amount of received payments is 1,107,757 USD. The net profit for the investor was 10.75% in USD.

Payment systems

- Ensure legally pure transactions with fiat in different countries.
- Earn a percentage from each transaction.

Investment funds

Participants in Karma can be both individuals and legal entities. For example, investment banks, investment funds, insurance companies etc.

- Hub to raise money from investors and distribute them to lenders according to their strategy.
- Earn a percentage from the profit for the effective fund management.
- Any bank, pawnshop, MFI or private fund is essentially an investment fund, with its own strategies.
- You can declare your strategy and commissions, aggregate the money of investors, and distribute the lenders who meet the requirements.
- Obviously, many investors will not want to manually select specific people or specific projects for investment. The Karma team was approached by several major financial organizations to include them in the list of the first portfolio managers.
- In this way, a securitization mechanism is obtained for loan portfolios in securities:
 - Ability to pack loans in securities portfolios;
 - Issuance of tokens for these portfolios and their sale within the system;
 - i.e. the owner of the token (share) automatically receives the interest that the lenders pay or it can resell a token (share).

Commissions distributed by different social roles:

- Scoring: 0-0.5%, depending on the quality.
- The seller of the lender: 0-0.5%.
- The seller of the investor: 0-0.5%.
- Karma as an ecosystem: 0.5-1% for maintenance.
- Payment system: 0.5-2%, depending on many parameters.
- Pay for the collection or not, and how much to pay - the investor decides.
- Pay for insurance or not, and how much to pay - the investor decides.
- To connect guarantors or not, and how much to pay - the investor decides.

Average total commission to participants of the transaction, according to preliminary estimates: 2-7%, depending on the size of the transaction and other parameters.

Rating of participants (Karma)

The world is gaining more and more appetite for direct interaction between people: searching for the services of taxi drivers, housekeepers, tutors and even doctors. Each specialist tries to do his job as professionally as possible because his reputation depends on it.

People diligently accumulate their reputation. This is their social capital in the literal sense of the word because experts with high ratings have a solid core of clients.

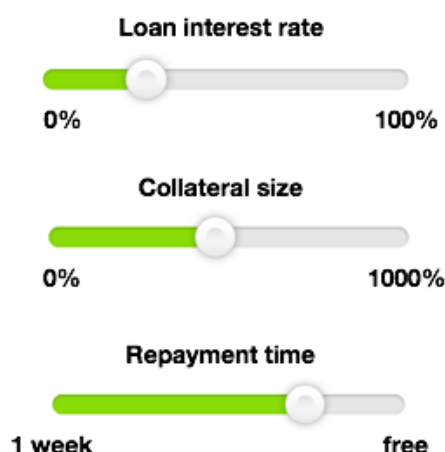
According to statistics on Amazon, 80% of all sales are made by clicking on the product from the first page of the SERP (Search Engine Results Page). One of the key criteria for issuing on the first page is the rating of goods and seller.

On the popular site Yelp, created to search for local services, a one-star increase if the performer rating adds an average of 5-9% to the volume of orders. And one negative feedback on average brings loss to 30 potential customers.

A [few more figures](#) from the authors of the bestseller 'Conversion Optimization: The Art and Science of Converting Visitors into Customers' and the organizers of the [Local Consumer Review](#):

- 88% of buyers trust online reviews and ratings as much as personal recommendations.
- Buyers are, on average, ready to overpay by 31% when they buy from a seller with 5-star reviews.
- 72% of online shoppers decide to buy from a new seller only after reading positive feedback (if any).

Conclusion: the value of reputation on the platform of Karma will be so high that any participant will do his best to raise it and not to lose it under any circumstances.



Rates, Deposits and Terms of the Loan

Karma is a platform for creating social and economic relations. In traditional banks and in many P2P-platforms, the central counter-party or the site organizer decides what financial products will be possible, what rates on

loans and deposits will be, which loans can be made, and which not, on what parameters to do scoring and what kind of company will insure risks.

Karma gives participants the freedom to create any financial products: from short-term pawnshop loans to interest-free unsecured ones with an open return date. Moreover, any assets can be given as collateral and on credit.

Any participant can provide investment on any terms. Any participant can request a loan on any terms. Investors can provide investments for any terms, even with an open date (you will return as soon as possible).

There are already several P2P-lending projects in the blockchain environment, but they are strictly focused on one particular type of collateral or credit asset, on one relationship model, including branding and the name of the project. For example, USD secured by BTC, ETH secured by ERC20-tokens, ETH secured by tokenized gold or real estate. If something happens with ETH or BTC, the fate of such projects will be in question.

The open free market will determine which loan conditions are more appropriate for particular situations, states or types of relationships. In different countries, there are different interest rates and different attitudes to these or other assets. In addition, over time, some assets are eliminated from the field of view of people and new ones appear on the stage.

Due to the variety of socio-financial relations, the ecosystem is stable and flexible, which allows it to adapt to any state of the financial market at any time.

Decentralization of geography

Cross-Border Operations

Karma provides the opportunity for P2P exchange of resources between citizens and legal entities from different countries. Market motives for such operations are obvious: there are countries with [cheap money](#) (negative deposits, negative mortgage rates), and there are countries with expensive money (loans of 20-30% or more). A number of technical and legal issues will appear in the process of implementing the cross-border exchange.

All who worked with international payments faced the complexity of this operation. Banks often require many references and documents to transfer even small amounts. The task of Karma is to automate and simplify this process.

There is a working platform, Kiva. Kiva has already solved these issues in 80 countries. The system has operated in the legal field for several years, provides reporting on its activities and regulators do not have an issue.

Consider options for cross-border operations:

If transferring occurs in a fiat currency, they are conducted through an escrow account in a bank to which the Karma application is connected via the API. The application of the comment field to the payment order automatically identifies which payment is related to a particular contract, and what sort of payment it is: an investment or a loan repayment.

Another version of cross-border transfer: fiat - crypto asset - fiat. To date, the transactional costs in this process are much higher than with fiat transfers. If the world had a convenient legal service for such operations at a suitable price, it will be connected to the ecosystem of Karma.

Enrichment of competences

The second key point of Karma's cross-border nature is the decentralization of competencies to different countries of presence. Banks, investment funds, P2P-platforms often stay closed within the same region, as they do not have competencies in other regions. Our model allows us to form a community of experts in any country.

Currency risks

Another feature of cross-border lending is the insurance of currency risks. It is recommended to issue loans in the currency in which the borrower earns and spends the principal amount. However, the rate of this currency can rise or fall in relation to the exchange rate preferred for the investor.

At the initial stage, a separate fund for insurance of currency risks for investors will be founded. The fund will accumulate currency risks and reinsure them from large players or hedge in open markets.

The cost of currency insurance will be market and individual for each currency pair. The choice to pay for currency insurance will be the investor's choice.

Over time, the community members will be able to fulfill the role of the foreign exchange. The investor will be able to choose the most favorable conditions from all the options.

Decentralization of IT, Blockchain Technologies



Karma will be implemented using blockchain technology. This will give the project:

1. Reliability of data storage due to encryption technology.
2. The increase of fault tolerance due to decentralization.
3. The ability to operate with crypto-assets: BTC, ETH, tokenized assets (gold, real estate, shares of factories).
4. Binding to present and future blockchain registries: identification of individuals and companies, the state register of inventory, registers of depositories of valuable papers, identifiers of purses and transactions of crypto-currency.
5. The role of the electronic notary for fixing promises and the facts of their fulfillment.

The basis of our blockchain is the Graphene technology:

Maximum speed: 100,000 transactions per second (for ETH - 30, for BTC - 7).

The minimum transaction price: 0.02 dollars (for ETH - up to \$ 1.5, for BTC - up to \$ 5).

This speed and efficiency of transactions are possible due to the fact that Graphene is based on consensus dPoS (delegated proof-of-stake). Thereby, there is no expensive and labor-intensive mining in this ecosystem. Tokens were mined in advance, and the network members simply exchange them and fix transactions in the blockchain. There are a lot of crypto assets without mining: on <https://coinmarketcap.com> they are marked with asterisks. Of the most popular: Ripple, NEM, OmiseGo, NEO, TenX, BAT.

Even the creators of Ethereum pointed out in their [whitepaper](#) that mining is too expensive a technology, and the miners' expenses will make up to 52% of the total network turnover by 2020, therefore: "Most likely, Ethereum will be transferred to a proof of stake to reduce network maintenance costs".

A brief description of the essence of the consensus dPoS:

- Transactions are signed by witnesses.
- Selection of a set of witnesses who have the right to sign transactions is carried out by voting of the owners of the tokens. Thereby token owners delegate their voting rights to people who have server capacity.
- Changing the network code, commissions for transactions and other key points is done by delegates who are also selected by voting of the owners of the tokens.

More information about dPoS can be found here <https://bitshares.org/technology/delegated-proof-of-stake-consensus/> and here <http://docs.bitshares.org/bitshares/dpos.html>

We will fork Graphene to supplement the data structure with our fields, and make smart contracts (DApps) in the form of C ++ plug-ins. To connect to the blockchain core, a web application will be used that is connected via the HTTP REST API. This is the most convenient option for starting, because it works on computers, tablets and mobile devices, and frees you from having to harmonize each version with the App Store. This is the way that Steemit, Golos, BitShares (OpenLedger, ruDEX) and Peerplays are organized.

Important point: Karma is an Open Source project, and we will publish all our releases in the public access on [Github](#).

Any Assets as Collateral and Credit

While creating a request for the provision of investment or seeking credit, the user can specify the terms of pledge securing. If you want, you can specify from 0% to infinity, and only the market will determine the demand for such an application.

Secured lending

Real estate is the most popular and relevant type of collateral in business credits. The key issues are the registration of the pledge and its withdrawal.

On the Karma platform, it is planned to automate the procedure of working with a pledge. An investor from one country will be able to issue a loan with a pledge in another country where the cadastral register is connected to the API.

If, suddenly, the borrower cannot fulfill the obligations, then according to the agreement the pledge either passes to the creditor or is sold on the market by other participants of the platform. After that, the lender returns the necessary amount, and the borrower receives the rest of the money.

In Russia, Rosreestr together with Sberbank opened a service for electronic registration of mortgage transactions on real estate with encumbrances in 2016.

In some countries, cadastral registries are transferred to a blockchain and have an open API, with which you can check the status of a real estate object, impose an encumbrance on it and even transfer the object to a new owner.

Crypto-assets

If crypto-assets are used as collateral: bitcoin, air, other cryptocurrencies or tokens, digitized gold (Digix) or real estate (BankEx), then the mechanism of operation is simple: the token-pledge is placed in an electronic smart contract, which is an escrow (safe box). The creditor and borrower sign a smart contract (agreement). The lender transfers the money to the borrower. If the borrower cannot fulfill his obligations, then the pledge is realized on the exchange. From the received funds, the loan amount is returned to the creditor, and the borrower receives the balance.

Fiat currency as collateral

If the borrower has one currency, and the credit is needed in a different currency, he can obtain it under the pledge of available currency. To do this, he will need to place a pledge on the escrow account. The lender transfers money on the escrow account too. As soon as the borrower receives the credit, the platform will block the pledge on the escrow account. As soon as the credit is repaid, the pledge will be unlocked and returned to the borrower.

Other pledges

In the future, other types of pledges will be connected to the platform: works of art, collections, cars, goods in a warehouse or on the way. The procedure for working with the pledge is the same: the pledge is placed by the escrow agent, who blocks it until the obligations of the parties are fulfilled.

Lending without collateral

Lending without collateral has its own specifics. It's important to assess the borrower's creditworthiness correctly. To do this, any modern mechanisms of scoring and checking can be used (more in the section on smart scoring).

Lending without collateral involves a higher rate of return for the risk. A reasonable approach to choosing credits and sufficient diversification (we recommend limiting 10% of the investment portfolio per one borrower) will ensure a high long-term result.

In case of non-payment of an unsecured loan and renegotiation of terms fails, the investor can:

- a) sell the debt to collectors at a discount
- b) refer the debt collectors to recover
- c) independently file a lawsuit to collect the debt, including through automated platform mechanisms

Based on the experience of the lending club Kiva, our own fund, and the statements of banks, we expect that the total amount of overdue debts on unsecured loans will not exceed 10%, and eventually will decrease to 2-5%.

Maximum Automation

The task of Karma is to automate the process of interaction between the participants in such a way that the work does not require a physical presence during the transactions:

- Electronic loan and guaranteed contracts, with a set of ready templates
- Assignment of obligations
- Collective lawsuits
- Registration and release of collateral
- Insurance of currency risks
- A minimum period for obtaining a credit and easy maintenance for borrowers
- Automated scoring
- Single escrow account for all settlements
- Payments to multiple investors by one payment.

Smart Scoring

The smaller the proportion of collateral from the body of the loan and the less familiar the counter-agents are, the more important scoring is in evaluating the borrower's request. There are many scoring systems in the world, and some of them work in SaaS mode (a fixed small fee for each evaluation procedure).

The task of Karma is to create a space in which many localized scoring systems will be combined with different countries and different types of relationships.

First versions of scoring will check:

General information:

- Sex
- Age
- Marital status
- Guarantors
- Availability of Court proceedings
- Credit history of the borrower
- Criminal records

Financial information:

- Real estate in the property
- Automobiles
- Financial level in business
- Other credit obligations

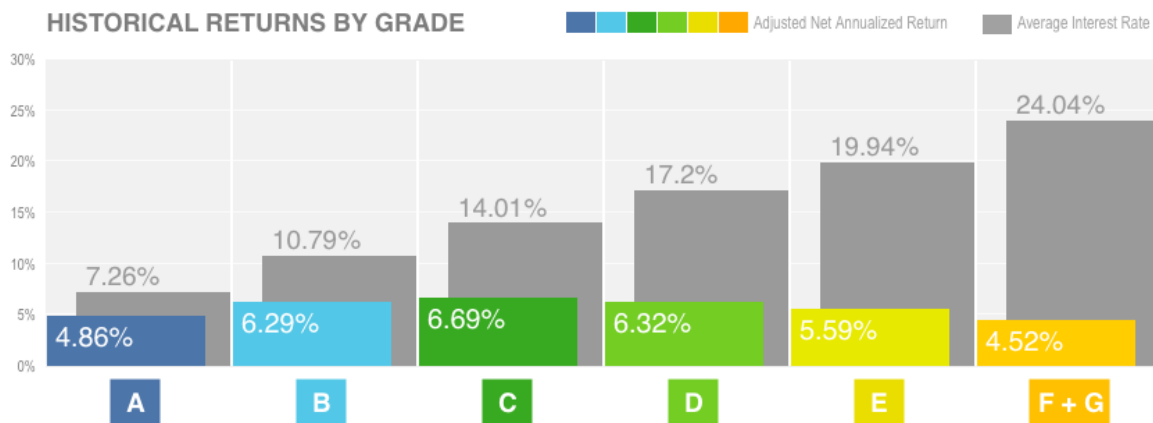
Behavioral information:

- Analysis of social networks, activity, friends
- Analysis of movements around the world
- Analysis of preferences - restaurants, cars, etc.
- Violations of traffic rules
- User's work with a mobile phone

Each indicator will have its own weight in the overall assessment. Later, the mechanism of machine learning will be able to determine the most important parameters, which will have the greatest weight and less important parameters will be minimized or excluded.

In the 21st century, there is a clear tendency to the openness of information. Soon, one will be able to know everything about any person through various databases. It will be possible to analyze accounting information on the borrower's business in real time.

Below there is an example of statistics from the Lending Club: the distribution of interest rates (gray) and the final yield of investors (color), minus all commissions, taxes, defaults and other costs. Borrowers are divided into groups based on scoring.



The diagram shows that due to different rates for different groups of borrowers, it turns out that it is possible to stabilize the final yield of loans for investors.

Karma will provide an open API for data registries, as well as for external scoring companies. All of them will be able to earn money by providing data. In addition, within the project, it is planned to organize regular hackathons for machine learning of the neural network based on the collected Big Data: teams of programmers from anywhere in the world can compete in the effectiveness of training scoring machines. A similar service is provided by Kaggle company. Thousands of teams are constantly fighting to improve the teaching of the neural network.

In countries with developed IT infrastructure, there are many available SaaS solutions for scoring on standard databases: credit bureaus, passport data, courts, etc. In other countries, everything is much more complicated with scoring. Therefore, Karma will connect additional methods of assessment:

1. Payment systems: bitPesa, M-Pesa and others. In such systems, the history of financial transactions is stored, where it is possible to draw conclusions about the stability of the borrower.
2. E-commerce marketplaces: Yandex Market, Amazon, Etsy, Ali Express, etc. If the borrower is actively trading on online markets, he can provide access to his sales statistics. This is a weighty argument while assessing of the stability of his business.
3. Systems that record the user's mobile phone activity. Today, smartphones know you better than your spouse, parents and friends. One of the first partners of Karma in the role of behavioral scoring will be the [MicroMoney](#) service, which already successfully operates in Cambodia, Myanmar and Thailand.

Mutual Responsibility

In 2006, a banker and economist from Bangladesh, Muhammad Yunus, received the Nobel Prize for his efforts to create the foundations for a social and economic development. The essence of his idea is simple: to give collective microloans to the poorest people - those who cannot receive traditional bank financing. The idea appeared in 1974 when Yunus gave his first credit of \$27 to 44 people and it was returned on time. Further, he repeated his experiment many times and his money was always returned to him.

In 1984, Grameen Bank was opened.

Over 9 years of experiments, Yunus has formed the basic principles of this type of lending and the bank, which is built on the collective responsibility of borrowers to each other, called a mutual guarantee, or the great strength of the team.

To get a loan, borrowers join a team of five people. All of them are interviewed by a Grameen agent, who is interested in their business plan to be sure that the money can be trusted to them. They are collectively responsible for repaying the debt. First, loans are given to two out of five people for a period of six weeks. When they give back the loan, the next two persons get the loan. If they return the debt on time, the last one gets the loan. Then everything repeats, but with longer terms and larger amounts. If someone turns out to be an unreliable borrower, all the five lose their right to be credited by the bank. Using such system, the team encourages the payer and helps him not to lose such a valuable credit rating from Grameen.

Karma offers several mechanisms of collective responsibility. All participants are responsible for the transaction in an equal degree: they can lose their reputation and money. There is a basic principle in Karma that none of the participants in the transaction receives cash before receiving a positive transaction result. Analysts, appraisers, lawyers and others will not get a fee before the beginning of payments by the borrower to the investor's account. Also, as an element of collective responsibility, you can consider a collective guarantee. For example, the CEO of company X wants to take a loan. He is one of the founders of the company. When applying for a loan for him, all other founders become his guarantors. These principles give a stimulus to all participants of the platform to approach their work as responsibly as possible, to take an acceptable risk and act for the benefit of all.

Marketing

Participants of Karma will often meet entrepreneurs: producers of goods and services. By placing a request for a loan, an entrepreneur not only receives money but also advertises his products among investors, many of whom can become his clients.

In addition, an entrepreneur can offer his customers who like his goods/services to participate in the financing of his business through the Karma platform. Perhaps the platform will even help someone to find partners in the international arena. A high rating in Karma will be an additional argument for the confidence of new international partners.

Loan against future delivery

A producer of goods or services can make a forward contract about the supply of his products in the future at a discount from the market price. This practice has long been used with the help of offline tools in agriculture, construction of real estate and even the production of auto parts.

One should realize that such a contract can be split and re-sold and that this gives the investor many options: For example, you can divide the contract into several small lots and sell it for more than the original purchase price, but still below the market price of the asset. Thus, an investor can act as a wholesale distributor. If the buyer of the contract is the direct consumer of the asset (for example, a plant for the production of potato chips bought a forward contract for the supply of potatoes), then the buyer receives the claimed goods at a bargain price.

For a supplier, such a contract allows them to free their head from marketing and sales, and focus on product creation. As a matter of fact, it can be formulated as 'selling a discount to a customer'. Secondly, such a tool expands the market for the product from local to global, because people from any country can buy it for the purpose of reselling a contract on a crypto-exchange. Also, this function creates an opportunity to work off debt by a product or service.

Internal transaction currency, barter economy

After the accumulation of enough participants with a great reputation, the domestic currency of Karma will be used not only to pay commissions but also for carrying out other operations, for example, barter transactions.

In fact, it will be possible to form a debt similar to a bill that can be broken up or resold. The debt will be nominated in a special domestic currency of the platform, which will be a stable coin. Debt must be secured by the issuer's goods.

Let's consider an example:

- A car factory has ordered rubber from the supplier.
- But the car factory at the moment has no free fiat money.
- Two entries are created in the ecosystem:
 - A loan in domestic currency, secured by future cars, is created for the auto plant.
 - The supplier receives a debt document in domestic currency (analogous to a bill of exchange). Using it, he will be able to purchase goods and services of any member of the ecosystem.
 - The debt instrument can be split and transferred (sold) to another participant, that simplifies transactions. And also allows you to sell this asset outside the ecosystem and convert it in the fiat.
- As a result, the rubber supplier sends its products and does not wait for payment.
- The economy is accelerating, whilst transaction costs are decreasing.

In fact, the task of the domestic currency is to be a transactional coefficient between the cost of different goods, and keep the sizes of obligations between counter-agents.

The scheme is tested, it works offline, and is described in detail in the article Commercial Credit Circuit (<http://lietaer.com/2011/09/commercial-credit-circuit-c3/>) by Professor Bernard Lietaer. Such an ecosystem has been successfully functioning in Switzerland since 1939 and is called WIR. An experiment is being conducted in Uruguay, and later in other countries.

6.Competitors

Karma does not have a competition policy: we are ready to become partners with any financial service or a platform for tokenization of assets.

In the framework of market research, an analysis of more than a dozen different online and offline services was made, both using blockchain and without it.

List of reviewed companies and projects:

MarketInvoice, <https://www.marketinvoice.com/products>

Dharma, <http://dharma.io/>

Suretly, <https://www.ico.suretly.com/ru>

WeTrust, wetrust.io

Polibius, <https://polybius.io/en/>

BankEx, <https://bankex.org>

Lending Club, <https://www.lendingclub.com/public/careers.action>

SALT, <https://saltlending.com>

BTCJam, <https://btcjam.com>

LoanBase (Bitlendingclub), <http://loanbase.com/en> , <http://bitlendingclub.com>

BTCPOP, <https://btcpop.co/>

GetLine, <https://getline.in>

BM Chain, <https://bmchain.io/ru>

Bitbond, <https://www.bitbond.com>

Everex, <https://www.everex.io>

ITTEX, <http://www.itex.com>

Kiva, <http://kiva.org>

Summary of the research

Detailed table: dropbox.com/s/ow4gzcfhwmcu3dg/Karma.Comparision-Grid.xlsx?dl=0&raw=1

The Kiva.org project is the closest in spirit and scale. Within its framework, more than a billion USD micro-loans have been issued.

Key differences of Karma:

- decentralization of social roles,
- extensive opportunities to create different types of relationships, including interest-free loans, possibility to use crypto-assets as collateral and credit, public storage of the history of transactions.

If we compare with other projects, the main differences of Karma are:

- Decentralization of social roles. Any member can perform any role or even several roles. All interaction goes P2P.
- Decentralization of geography (most projects are located within the same jurisdiction);
- Users themselves can create an endless variety of different relations: from short-term Lombard micro-credits at high-interest rates to social interest-free unsecured loans with the return condition 'give when you can.' Any kind of asset as a pledge and a credit.
- The open market allows users to decide for themselves which types of relations are best suited to particular situations.
- Wide opportunities for scoring on various parameters.
- Prospects for creating an economy for mutual settlements.

Marketing

Many people asking us questions like:

- Where is your marketing strategy?
- What will be the lead price?

We understand: there always will be some competitors on every market. Especially, if the market size is about 2.5 trillions of USD like we have.

We also understand that we should have our own path: to create a solid community from participants who share common values and mission. There's no need to compete in Google AdWords with thousands of ICOs. Just be yourself and treat your community well. Look at the Apple, for example: they sell overpriced devices with outdated technologies. They can afford it because they have their own religion. Even their logo is a symbol of Bible story of Adam and Eve, eating the knowledge fruit.

Karma has viral community-driven development from the first days: people really love the idea, values, social mission and our human approach. People can feel that Karma is not a corporation, but a community. That's why we have a lot of volunteers from our early startup days, without even making a pre-ICO.

As for the numbers: Karma have successfully completed the pre-ICO round raising 500k USD with only 0.75k USD spent on paid marketing. During the first 3 weeks of whitelist registration for the main token sale we've had 90% of 6M USD from our community, and only 10% from paid traffic. And we have more and more volunteers and evangelists all over the world, in US, China, Russia, CIS, Europe, Korea, Japan, Australia etc.

So, the core of our marketing strategy is simple but powerful:

- Be a community instead of corporation;
- Always consider our values: humanity, fairness, transparency.
- Create value for the people, create new opportunities for their self-realization and wealth growth. Make them feel they are the part of something great and positive.
- Deliver lots of free but useful products: education, networking, resources access.

7. Social ecosystems based on Karma

Social networks

The mechanism for digitizing of the reputation will be ready, and it can be built into social networks or chats.

Education

Educational organizations will also be active participants in the system so that borrowers and those in other roles have an accessible opportunity to pump out certain skills in order to increase the effectiveness of fulfillment of their obligations. On the basis of Karma, you can build an ecosystem of creating and tracking educational tracks, develop a cloud of teachers in various disciplines.

Networks of P2P mentors

As an educational organization, you can also consider a network of mentors who develop owners of the projects and conduct them through different stages of project development.

Work with those who did not pass scoring

In Karma, scoring also performs a social function. If an ordinary bank refuses to give you a loan if it simply sends you home empty-handed. If you receive a low score in Karma based on the scoring results, you are given the instruction:

- What indicators do you need to improve?
- What ways of improvement can be?
- Which mentors or training programs can help in this case?

Often, entrepreneurs have low indicators not because they neglect their business, but because of a lack of knowledge and skills. We help to fill these gaps, and perhaps some of the people who once received a low-scoring score will return to us in 1-2 years as wealthy investors.

Exchanges of options, futures, bills and credit derivatives

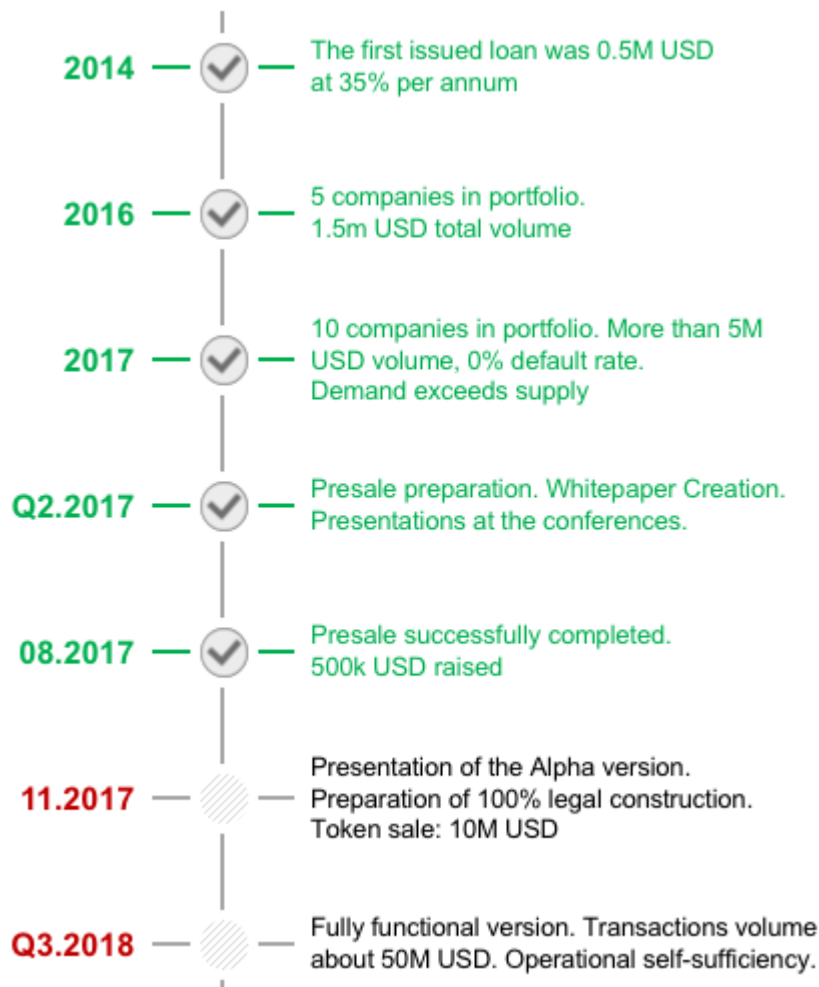
Since the project is created on the basis of BitShares, we can assume that this tool is already ready. Imagine that in the online store you can see the current retail price of the

goods, as well as a glass of options purchased by players in the market in advance. You can always choose the price that you like best and save on a purchase.

8. The Main Business Process

- Users undergo a simple registration in the system and gain access to the list of resource offerings and resource demands.
- To enter the transaction, you must undergo the procedure KYC (Know Your Client): confirm your mobile phone and passport data. The more the user enriches his profile (connects accounts in social networks, downloads statistics from e-commerce markets, makes a qualitative description of his projects), the more he will be trusted.
- Entering into a transaction, participants sign an electronic contract that has legal force. Also, the investor and the borrower can connect scoring agencies, insurers and other community members to the transaction.
- Karma provides an independent escrow account in the bank for a fiat currency or crypto escrow for crypto assets.
- The lender sends assets to the escrow account, the system adds a tag with an electronic contract number.
- A smart contract analyses the notes to payment orders and sends money to the borrower from the escrow account.
- Karma records the issue of a loan on its blockchain.
- The borrower makes monthly payments through the escrow account. The system marks the number of the electronic contract in all the payments.
- A smart contract sends a payment from the escrow account to the lender.
- Karma registers the payment in the blockchain.
- As a result of all payments, Karma registers the closing of the credit transaction in the blockchain.
- In the process of credit relations, both the creditor and the borrower can contact the platform specialists for additional services: valuation, analytics, collection, etc.
- Participants of the transaction are charged with Karma (the rating is updated).

9. Project development and version plan



The team of Karma founders have several years of experience in P2P lending. The private P2P lending fund MSB has been working in offline mode in Russia from 2014 and has grown from zero to 5m USD. Karma is an organic continuation of this experience.

Alpha version (11.2017)

- Unsecured transactions with fiat currencies.
- Loan on the security of crypto-currency (crypto-pawnshop):
 - The borrower leaves in pledge BTC / ETH;
 - The lender issues USD on credit.

Second version (Q1-Q2.2018):

- Payment of commissions in Karma tokens;
- Cross-border transactions;
- Hedging of currency risks;
- Enlargement of the number of social roles;
- Connection of new partners according to scoring, identification, provision of liquidity;
- Creation of a network of ambassadors around the world.

Third version (Q3-Q4.2018):

- Transactions with Tokenized Offline Assets (real estate, gold, other resources);
- Creating of new social roles;
- Financing for the delivery of goods and services;
- Collateral platform.

10. The Economy

Presale

Dates: August 17-30, 2017.

Hard Cap of 500 000 USD was successfully raised.

Average payment: 5.2 ETH.

Token price: 100 USD.

Pre-sale did not involve funds or institutional investors, the entire amount was collected from private investors.

The marketing budget for direct advertising was 750 USD.

The estimate for distribution of attracted funds:

- Design and development of the product: 88k USD.
- Development of legal design: 25k USD.
- Marketing and PR: 160k USD including preparation of content, support of users in chat rooms, press releases in the media, translation of content into several languages, participation in conferences.
- Fund for the financing of the first loans: 100k USD.
- The stock of risks: 100k USD.

To raise funds for pre-sale, a smart contract was created on Ethereum, located in an open repository: <https://github.com/goognin/Karma>

For the period between pre-sale and November token-sale, responsibility for the targeted use of collected funds is assumed by the London-based Goodeast Consulting Ltd. (<https://beta.companieshouse.gov.uk/company/10596223>).

Multisig wallet with funds will be opened for spending money only if there are 3 of 4 signatures, two of which belong to European lawyers.

All reporting about the using of funds of the pre-sale fund will be automatically recorded in the Ethereum blockchain. In addition, the Karma team will publish a weekly report about the fund's expenditures explaining the purpose of using the funds. The reporting is published in the official Karma blog: <https://medium.com/@Karma.project>

Pre-sale tokens will be exchanged in the process of token sale for new tokens at the ratio of 1 to 100 000 using the OpenLedger gateway.

Token Sale

Start: November 27, 2017.

Finish: either by reaching Hard Cap or by reaching December 22, 2017.

Soft Cap: 5M USD.

Hard Cap: 10M USD.

Price of the token: 0.01 USD.

The number of tokens produced at ITO: 3 billion.

Of these, for sale: 1.275 billion.

Token sale process

- On October 10, registration in the whitelist will be opened through the official site <https://karma.red/>
- All participants of the whitelist must register at the OpenLedger stock exchange and provide organizers of a token sale their id on the exchange.
- Buying tokens for fiat, you must pass KYC on the exchange.
- Organizers of token sale have the right to exclude a user from the whitelist if there are inconsistencies in the user's requirements regarding AML or CTF.
- On November 25, registration in the whitelist will be closed and access to buying tokens is open for whitelist participants.
- Whitelist will be split in 2 tiers:
 - Tier 1: Over 200k USD, only qualified/accredited investors.
 - Tier 2: Everybody except US residents.
- Token sale timing and limits:
 - Tier 2: From November 25, total 10M limit.
 - Tier 1: all the rest after the Tier 2.
- Maximum amount to sell in one hands
 - Tier 1: 2M USD.
 - Tier 2: 0.2M USD.
- Minimum amount is not set.
- Discount levels for each tier:
 - 50% until 1M raised.
 - 30% until 3M raised.
 - 15% until 8M raised.
- In the event that the Soft Cap is not reached, the owners of tokens vote to decide:
 - Strengthen marketing and continue token sale;
 - Agree on a plan for the development of a product using the resources involved, and make the third round of token sale later.
- Purchase of tokens is carried out through a stock exchange cup.
- Buyers will be able to sell their tokens through the stock exchange only after completion of the token sale.
- The connection of additional exchanges is planned during a month after the completion of the token sale.
- Detailed instructions for participating in the token sale will be published in advance, <https://t.me/karmaprojecten> , <https://t.me/karmaproject> , <https://open.kakao.com/o/gKNwGqA> , <https://medium.com/@karma.project> , <https://twitter.com/KarmaBlockchain>.

Funds distribution

- 45% - development and marketing of the product until reaching self-sufficiency.
- 20% - a fund for investing into the first projects. A significant part of the funds raised at ITO should become an investment fund for investing in the first projects within Karma's boundaries. It is necessary to make several successful examples: invest in the project, implement the project, return the money to investors with a profit. This will increase the faith in the working capacity of the project.
- 10% - insurance fund.

- 18% - marketing bonuses based on the results of the token sale.
- 2% - legal support.
- 5% - to the founders, with a freeze for 1 year and equal payments.

Tokens distribution

A total of 3 billion tokens, of which:

- 500 million tokens (17%) - founders.
- 500 million tokens (17%) - presale buyers.
- 1.275 billion tokens (42%) - token sale buyers.
- 725 million tokens (24%) - a reserve for the motivation of the members of the future community and the development of the ecosystem.

Why we decided to create a token reserve:

- We are aware that for the development of the ecosystem it is necessary to allocate a decent supply of tokens for motivation (bounty). Examples of what it is worth to spend these reserves on:
 - Development of the program code of the project, one of the most important points Ethereum suffers from (see article on medium.com/@FEhrsam/);
 - Testing of the code and legal structure on the vulnerability. Hackers are also people and are guided by rational motives. If the reward for a preliminary vulnerability search is comparable
 - with what can be stolen by the ratio of labor/income,
 - then hackers prefer to become White Hat.
 - Hackathons for the development of the community of developers.
 - Involvement of evangelists in the ecosystem;
 - Development of local communities in different countries;
 - Attracting people with money in the ecosystem;
 - Publications in the media and other ways to promote the project.
- In previous versions, the whitepaper was offered to pay bounty with money, but after analyzing of the existing practice it became clear that the payment works better:
 - The more people who own Karma tokens, the wider the loyal community.
 - If a person is ready to work for tokens - he believes in the project and will do the work for the project more qualitatively.

Funds safety guarantees

- International escrow - OpenLedger;
- Responsibility of the legal entity for the purposeful use of funds;
- Transaction of expenses through blockchain;
- Monthly public accountability about income and expenditure.

Restrictions

It is not possible a single buyer to purchase more than 20% of the tokens which are sold through the token sale (8.4% of the total mass). We want the project to develop in a

democratic way, ensuring that Karma tokens are distributed to the largest number of people, ensuring a more sustainable ecosystem.

Capabilities of the Karma token

Payment of commissions within the platform

The main driver of the growth of token price :

- The Karma token is used as payment for all commissions in the ecosystem: scoring, transaction processing, insurance, collection and others.
- Participants of transactions will buy Karma tokens through the exchange automatically.
- The greater the volume of transactions in the ecosystem, the greater the amount of commissions, the higher the demand for Karma tokens.
- If you keep the total number of tokens and demand increases, tokens will grow in price.
- With the growth of the rate, the number of those wishing to buy tokens will grow, creating an additional supply deficit.
- Unlike BTC or ETH, the absolute size of the commission will not grow in proportion to the price of the token. If the rate of the Karma-token has doubled, then people will pay half as many tokens for the same amount of commissions.

As mentioned above, the average volume of commissions in relation to the whole volume of transactions, according to preliminary estimates, will be 2-7%.

Forecast of economic development:	2017	2020	2025
The volume of transactions per year, USD	5M	1bln	15 bln.
Commissions vol. (demand for tokens), USD	250k	50M	750M

Special possibilities for holders of more than 100 000 tokens

Access to the dark pool

- An important source of potential benefits for token holders.
- Such a mechanism has been operating on the stock exchanges for more than 50 years.
- New applications for loans first go to the dark pool.
- New applications for investment also first go to the dark pool.
- If within X days none of the holders of the tokens picks the application, it is placed in a public pool.

- Thus, the holders of the tokens receive exclusive primary access to information about the most available long-term money and the most profitable reliable applications for loans. How to make a profit out of this is obvious.
- If several holders of the tokens simultaneously want to take an interesting request, the one with the most tokens wins.
- In the future, a system with multi-level access to the closed pool is possible: the more tokens you own - the more priority access to applications you have.

Discount on commissions within the platform

Discount will be up to 50% on commissions within the platform.

With a turnover of 1M USD per year, only this saving can amount to about 10k USD.

Vote

TOP-15 delegates (participants, to whom holders of tokens delegated the right to make decisions, see the description dPoS bitshares.org/technology/delegated-proof-of-stake-consensus/

and here <http://docs.bitshares.org/bitshares/dpos.html>) openly make decisions about the implementation of new versions of the project: updating commissions, additional issues, updating the business logic of the application.

New token emissions after the token sale

To maintain the rapid rates of development of Karma, additional resources will be required. The team plans to attract them through the sale of new tokens. The current holders of tokens will benefit from the sale as well, as the development of the platform will lead to an increase in the number of internal transactions, a smooth increase in the price of the token and an increase in the liquidity of the token on the exchange.

We plan to release new tokens in connection with the performance of the targets for the development of the platform, our published roadmap. The dynamics of the number of transactions will outpace the dynamics of the number of tokens in the system, which will control the growth of the token price.

One of the functions of additional emissions is to mitigate the growth of the value of the token and expand the number of participants in the ecosystem to improve its stability. The order and conditions for the release of new tokens can only be changed by negotiating with the 15 largest delegates of the community (see the dPoS device).

	A	B	C
Time after the token sale (estimate)	1year	1.5 years	2 years
Transactions vol. on the platform per year	50M USD	150M USD	300M USD
Number of tokens	3 bln.	3.5 bln.	4 bln.

in circulation			
Additional emission vol. in tokens	0.5 bln. (17%)	0.5 bln. (14%)	0.5 bln. (12%)
Estimated token exchange price	0.02 USD	0.06 USD	0.12 USD
Funds raised	10M USD	30M USD	60M USD

We understand that additional emissions looks not so positive for the token holders in short term view. But, if we're planning for 3-5 years forward — the bonus is obvious.

Let's compare two options:

1. We raise 10M USD at the token sale, we make project self-sufficient in a year and we don't have any new funding rounds. In this case, project can be established in 2-3 countries, but further development will slow down. That will hurt the project itself and the token price. What's not developing — shrinks to zero.

2. New token emissions after the token price and transactions volume growth. In this case, every new funding round will provide massive impulse for the project development: new countries, new transactions, new participants. Also, every new round will make project more attractive to new participants, that's why we sell less % of tokens for more money.

Dividends are not paid

Karma is a non-profit project, and the Karma token is a utility-token. It creates many opportunities for earning, but in order to do this, token holders will have to commit labor.

If the surplus of income accumulates in the ecosystem, it will be distributed in several directions:

- Formation of an insurance fund for partial compensation of defaults.
- Formation of a fund for granting preferential loans to participants in the ecosystem.
- Reverse foreclosure on the market.
- An endowment fund to serve the community of project developers for as long as possible.

Financial Operations Plan

All figures are in USD / month.

Operating expenses:

- Development team: 60k
- Management and other administrative costs: 30k
- Media support and events: 50k
- Office: 10k
- Legal expenses: 10k
- Support active community members: 10k
- Risks and other expenses: 30k
- Total expenses: 200k USD / month

Operating income:

- Investment fund:
 - $2\text{M USD} * (20\% - 7\%) / 12 = 22\text{k}$
- Commission from operations:
 - At the start - up to 5% of the volume of transactions. In the future, with the increase in volume, it is planned to reduce the commission of the system to 1%, and then to 0.5%.
 - $(200\text{k} - 22\text{k}) / 1\% = 18\text{m USD}$ - the target volume of transactions per month to supply the finances of the project autonomous operation.
 - For comparison: Sberbank gives only consumer loans at 50m USD per day, and considering into account other loans, this indicator in some months reaches 100m USD per day. This is 160 times more than the necessary volume for self-repayment of Karma.
 - i.e. Karma will become a sustainable project, even if it reaches indicators at the level of the bank of the third echelon.

Investment fund

To form a market maker on the platform (a participant who can provide liquidity and always act as a lender), a part of the funds raised at ITO to the amount of 2m USD will be used to create an investment fund.

The fund's income in the early years will be about 20% per annum in RUB. At the initial stage, currency hedging will be technically difficult. At the next stage, hedging will cost approximately 5-7% per annum.

Insurance Fund (Mutual Aid System)

The existing insurance system looks imperfect. For example, in the US, total insurance premiums for health insurance only are more than 1 trillion USD per year

(fool.com/investing/general/2015/01/04/heres-what-the-average-american-pays-for-health-in.aspx).

Moreover, more than 30% of this trillion is administrative overhead (bloomberg.com/news/articles/2013-04-10/the-reason-health-care-is-so-expensive-insurance-companies). In addition, the profitability of the insurance companies themselves in the States is about 5% (investopedia.com/ask/answers/052515/what-usual-profit-margin-company-insurance-sector.asp).

On average, every US citizen spends over 15,000 USD a year on health insurance. Many people spend more on insurance than on food or housing.

If you just collect a small amount from all transactions in the fund, service it in the most automated manner through a non-profit organization, then in some US **it is possible to save 0.3 trillion USD per year only on medical insurance**. This is more than all the costs of charity.

There are also real estate, car insurance, travel insurance, business insurance and many other sorts of insurance.

Therefore Karma, being a non-profit organization, directs most of its surplus income to the insurance fund, from which defaults on loans within the ecosystem are partially compensated.

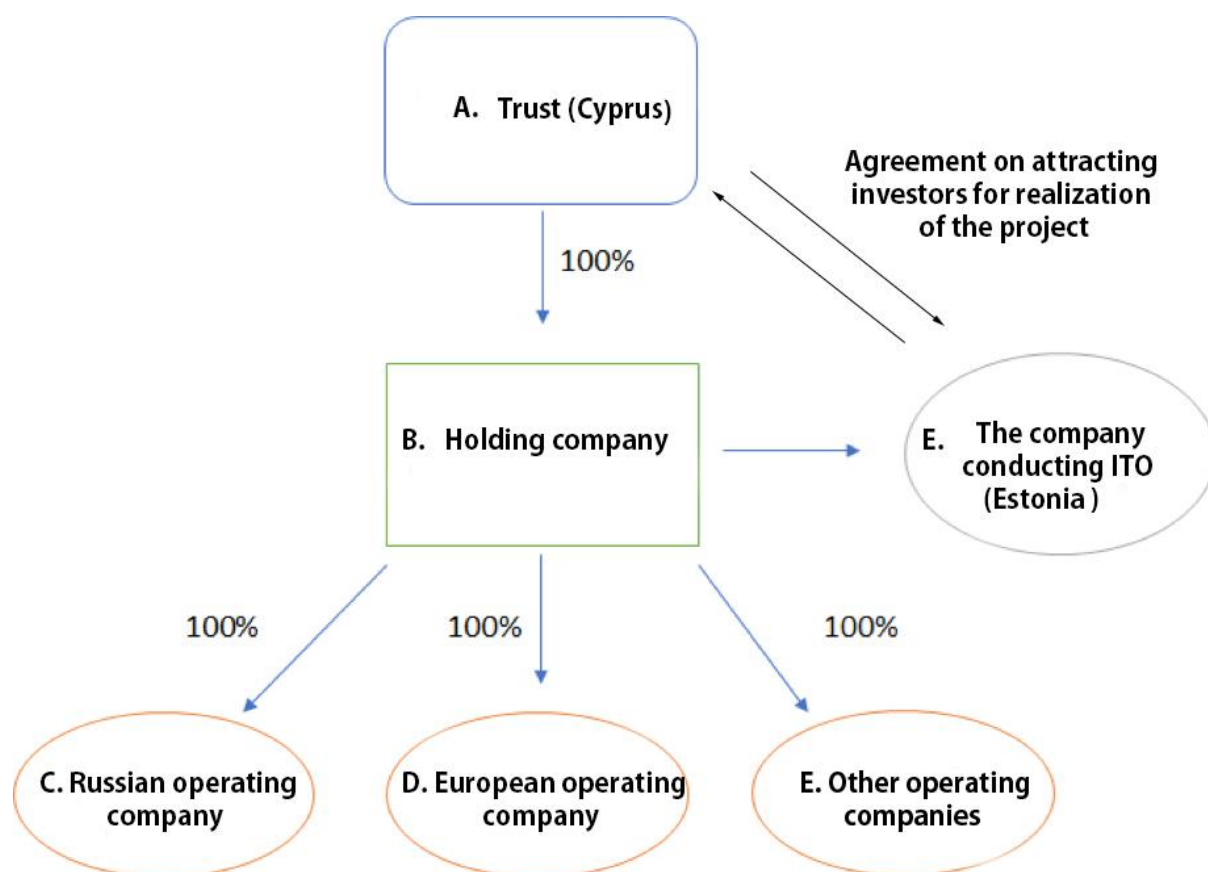
The mutual insurance platform is described in more detail in the article by Daniel Larimer, (bytemaster.github.io/article/2016/01/01/Mutual-Aid-Society-vs-Insurance/), co-author of BitShares, EOS and Graphene.

11. Legal aspects

Legal status of the token

- Karma token - application (utility) token.
- In the US, the token will be registered as a security, the implementation of which will be carried out only by a limited number of qualified investors.
- The sale of tokens will be based on an offer.
- Token owners will not have restrictions on reselling tokens to others.
- Tokens will be sold through the exchange Open Ledger.
 - In order to follow AML (Anti-money laundering) requirements, KYC (know your client) procedure will be conducted with a help of Open Ledger.

Organizational and Legal Structure



A. Trust in Cyprus. Token owners are poorly protected by law. A professional trust will represent and protect their interests. Trust protectors will be several independent participants. The Settlers (trustors) will be Artem Laptev and George Gugin in equal proportions of 50%. In the trust agreement, there will be prescribed a restriction on the payment of dividends. Beneficiaries will be all token holders.

B. Holding company. It will be established in case of successful ICO. The company will receive intellectual rights to the Karma project. The company's operational activities will be related to a technological part of the platform development and brand promotion.

C-E. Operating companies in the countries where the business is being done. The holding company will become a 100% founder of local operating companies. Some jurisdictions require a license to carry out activities. In some countries, there will be required a local legal entity to deal with a local currency. In some, from the point of view of the tax, it will be more profitable to work through a local operating company.

F. The operator of token sale. An independent European company will be involved in ITO. This company will be responsible for compliance with AML and KYC procedures when implementing tokens. The responsibility for the realization of the project will rest with the Trust.

Electronic contracts

Document turnover between the participants of the platform will be implemented in electronic form and recorded in the blockchain. Countries in which the Courts do not accept electronic contracts will not be connected to the platform.

Examples of electronic contracts:

- Loan agreement
- Loan extension
- Suretyship
- Currency transaction passport
- Hedging of currency risk
- Insurance
- Collateral decoration and withdrawal
- Claims and collective actions
- Settlement agreements
- Assignment of claims
- Agreement with the collector

A tool for filling collective claims will be developed as well, in the case of P2P lending, when 200 investors gathered at 0.1BTC, collect the entire amount at once and distribute it among investors. Similar tools are already in use in the world.

12. The Team

George Goognin, Founder, Evangelist, Producer

The first IT-startup was developed in 2008 by Ex-director of ADV web integrator, automated large financial holdings: MICEX, VTB, FG Life, PSB, ICB. The founder of digital school RIC: more than 1000 students across the country. Automated large e-commerce: Hoff, re:Store, Samsung, LEGO, Nike, Facebook.

[Facebook](#)

Artem Laptev, Founder, Director of Investments

Has managed a private fund of P2P-lending to small and medium-sized businesses since 2010. He has own scoring strategy with stable, positive results. More than 10 years of experience in asset portfolio management in the financial sector: Troika Dialog, Sberbank, Ancor. He is the holder of the international degree CFA.

[Facebook](#)

Ronny Boesing, OpenLedger, Partner in Denmark

The founder of the world's first decentralized crypto exchange OpenLedger, as well as several other projects, including CoinsBank, OBITS, Apptrade. Together with the partner, Dan Larimer, constantly develops the ecosystem of Graphene / BitShares.

[CoinTelegraph](#)

Stephane Konan, Advisor

Managed a large department of the Ministry of Internal Affairs of Ivory Coast, spear-headed all cyber-criminality investigations, forensic analysis, and the screening of individuals and organisations. Developed official partnerships with international intelligence community: FBI, Korean Cyber-Terror Response Unit, the French Ministry of Defence, Interpol.

[Linkedin](#)

Mikhail Shlemov, Mentor

UBS, Executive Director of the Analytical Department.

Experience of more than 10 years. In Deutsche Bank, he took part in the IPO of VTB and "St. Petersburg" bank. In VTB Capital, he participated in the IPO of MICEX and Nomos-Bank. Repeatedly recognized as the best industry expert in Russia (Institutional Investor). He was in the top 3 analysts of the financial sector (Extel Russia).

[MOEX](#)

Dmitry Shnelreikh, Consultant

An expert on b2b sales, marketing and partner development, business lobbyist.

Has helped with the launch of more than 20 start-ups since 2012. In the past, he was an adviser to the Presidential Administration.

[Facebook](#)

Denis Svinarchuk, Fintech Advisor

An architect of the IT infrastructure of the MICEX. He designed the core of the exchange trading system and assembled a team of developers. Specialist for high loads: in the recent update, the core of the exchange allows processing 140,000 transactions/sec.

[Facebook](#)

Rustem Zubairov, Legal Partner

A director of the department in Deloitte, one of the 4 largest audit and consulting companies in the world. Participant of the project on the legalization of crypto-currency in Kazakhstan at the state level.

[Linkedln](#)

Alex Chinyaev, Legal Partner

Partner of Karma in England. He worked for Citibank, RBC and PWC in London. Experience in the field of finance and investment for more than 15 years. Has an English certificate IMC.

[Linkedin](#)

Philip Agyei Asare, Partner in Africa

The founder of Dream Bitcoin Foundation, a member of the Humaniq project since the pre-ICO. The creator of the BTC Ghana service, which provides African labor migrants with sending money to their homeland with the help of crypto-currency at a price 3-4 times cheaper than existing systems of bank transfers.

[CoinTelegraph](#)

Thierno Madiou Bah, Partner in Africa

The founder of the blockchain community in Sierra Leone: educational programs for the inhabitants of Africa, the exchange of crypto-currencies and the development of IT solutions. The creator of the online marketing platform OnlinePromo.

[Facebook](#)

Yuri Myshinsky, Funds Relationships Executive

The ex-director of the State Corporation for Development of the Chuvash Republic. Has experience in attracting tens of millions of dollars of foreign investments in infrastructure, financial and IT projects. 15 years of experience in business consulting, integration of large IT projects.

[Facebook](#)

Evgeny Boev, GR partner

Manages projects in the RSPF Committee on International Cooperation.

More than 10 years GR, project financing and building partnerships. More than 6 years in the Central Bank of the Russian Federation in the direction of countering the legalization of income by criminal means.

[Facebook](#)

Gratitudes

Thanks to people who showed special attention to the project!

In discussions, many insights were born that made the project better.

Dima Starodubtsev
Dima Skorobogaty
Kostya Lomashuk
Sergey Bochkov
Dmitry Vasilyev
Andrey Stepenko
Denis Svinarchuk
Maxim Sotnikov
Andrey Yudin
Oleg Ivanov

Sergey Mashukov
Dima Voloshchuk
Alexey Osin
Denis Makhotkin
Georgiy Borshchenko
Maxim Molodtsov
Konstantin Misyutin
Alexey Kucherov
Yevgeny Perevalov
Alex Krol

Anatoly Vasserman
Evgeny Zyablov
Andrey Lyubalin
Konstantin Zhivenkov
Daniel Larimer
Bernard Lietaer
Enoch An

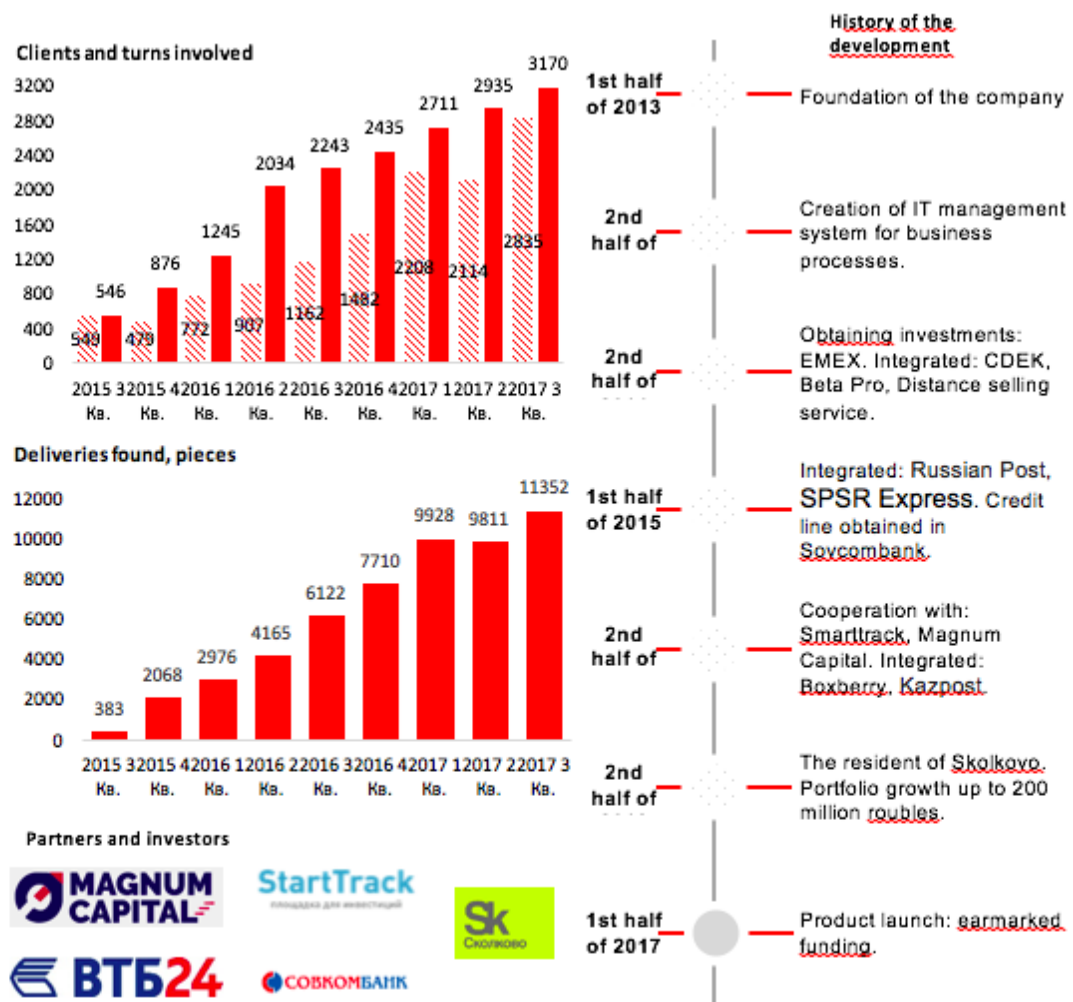
13. Closed deals

PimPay

The service of instant payment for goods, founded in 2012. The system closes cash gaps in the sale of goods with cash on delivery. Additional advantages of the service are assistance to improve logistics, an additional means of control over orders and a search of lost ones.

Main services:

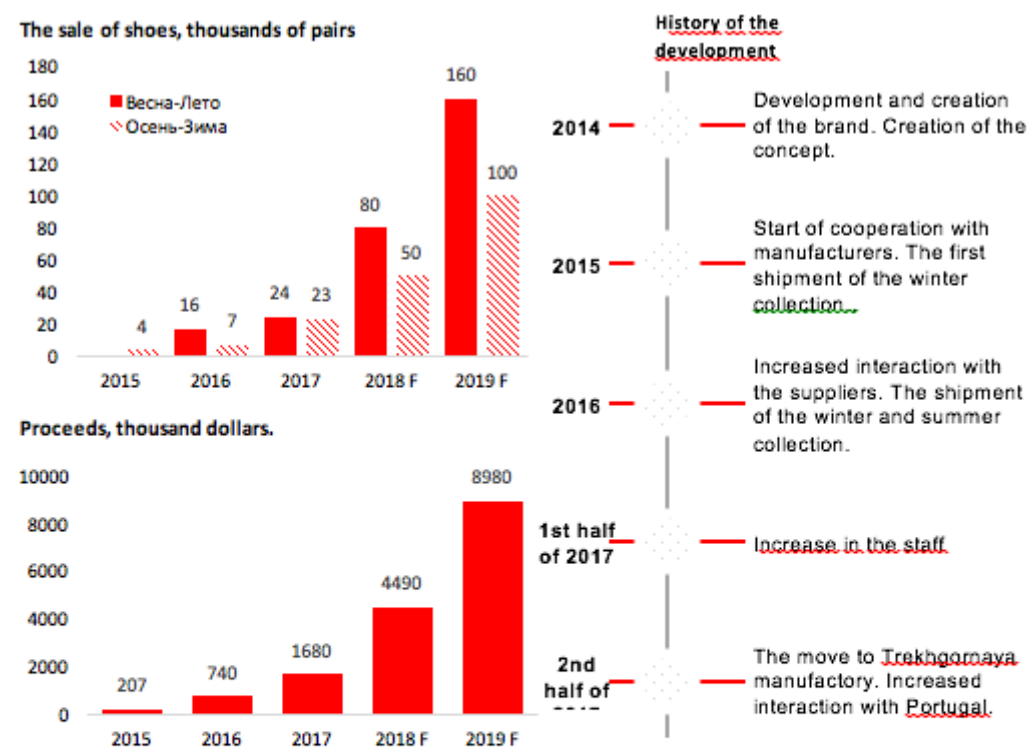
- Financing of the acquisition of advertisements and goods, payment for delivery services.
- Instant financing after transferring the order to the delivery service
- Additional earnings through the placement of clients' free funds
- Verifying orders with delivery services
- Control of the delivery of orders and the receipt of cash on delivery



AFFEX

Affex - the first shoe lifestyle brand in Russia. The company focuses on developing and selling high-quality shoes. It is based on the philosophy of love of the brand's creators to their brainchild and to life in general.

Shoes of this brand are practical, suitable for any season, style and wardrobe.

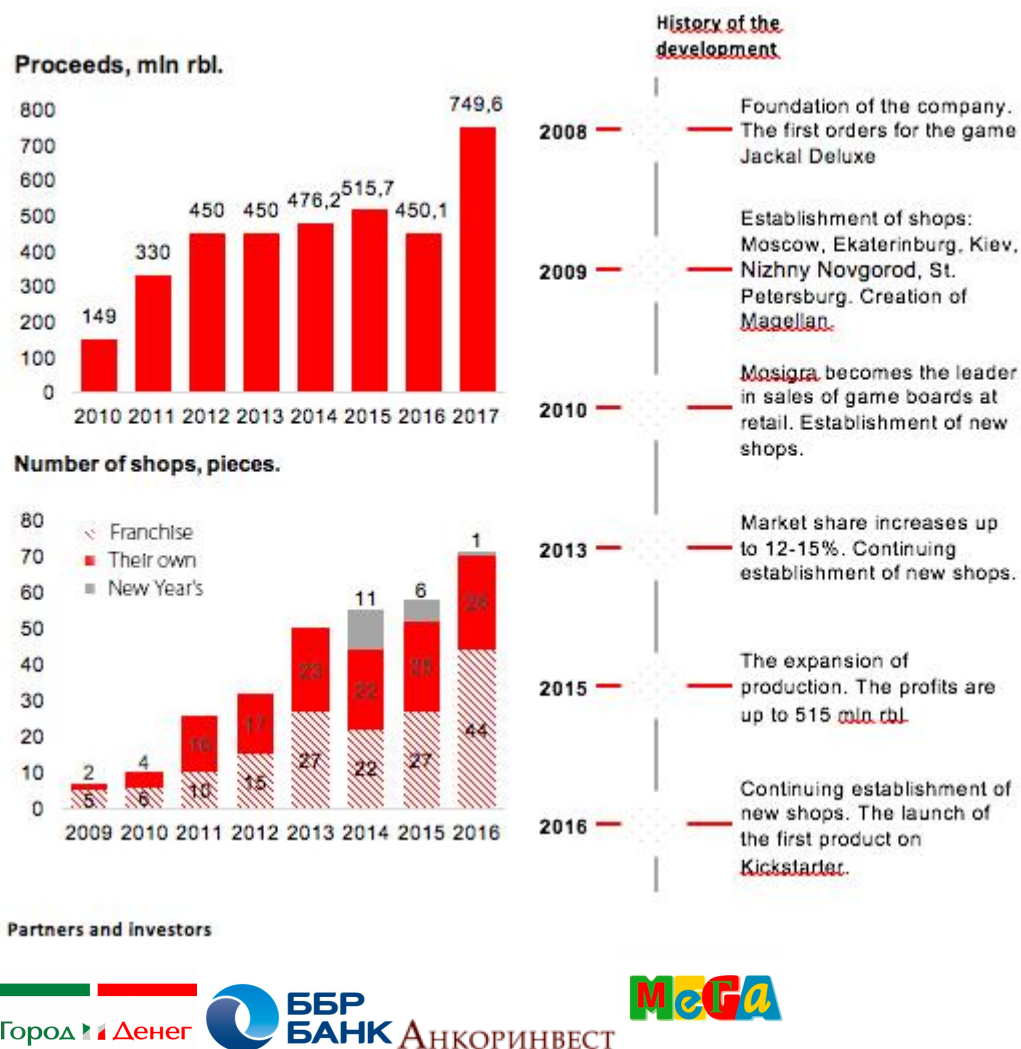


Partners and investors



Mosigra

Mosigra is the largest chain store of board games in Europe, which deals with both the production of its own games and import and purchase from domestic producers. The sales operations are carried out through a retail network of 70 stores in 35 cities of Russia, Ukraine, Belarus and Kazakhstan, and via online store.



GC "ATEC"

ATEK-Energo LLC, founded in 2007, has brought together several enterprises in the development process of the Central and Northern regions, the regions of the Urals, Western and Eastern Siberia, and the Far East.

The main tasks are timely and high-quality provision of cable-conductor products and electrical equipment, as well as packaging of assembling construction and installation enterprises, energy facilities and telecommunications companies in different regions of Russia.

During our work time, through our efforts, hundreds of kilometers of cable have been laid across Russia, hundreds of power lines and communication lines have been strung, and various energy facilities have been built.

Main services:

- Supply of equipment
- Financing of transactions
- Participation in projects for the construction and reconstruction
- of building services, power and industrial facilities
- Design and survey works
- Construction and installation work



MFI Brio Finance

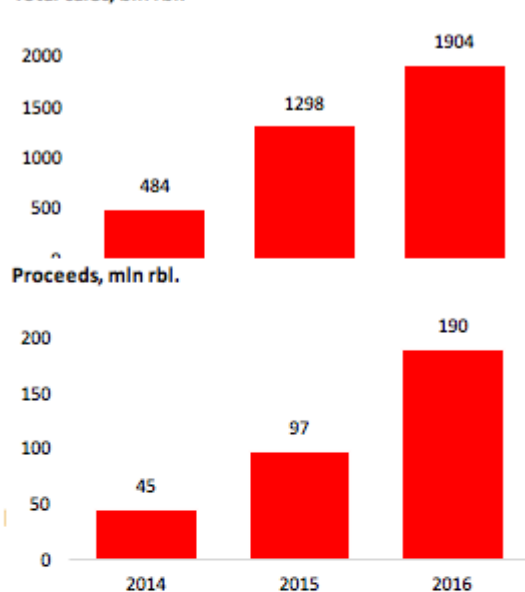
MFI Brio Finance is an ambitious project of the most client-oriented people on the government procurement market, which was launched in 2012. Microloans Brio Finance are the opportunity to participate in auctions with the absence or lack of working capital, the possibility to participate in a

good number of auctions, the predictability of expenditure, the availability of a loan in any region of Russia, a preliminary decision on a bank guarantee, e-flow.

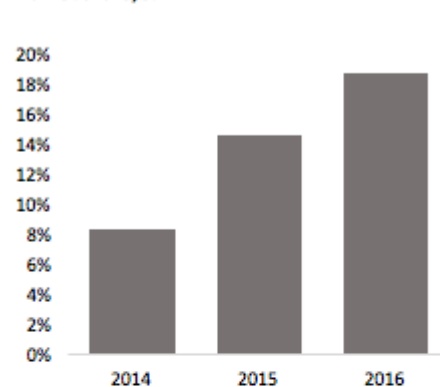
Main services:

- Tender loans
- Bank guarantees
- Loans for the contract management
- Surety to the bank

Total sales, bln rbl.



Market share, %



14. Summary

In the world of people, the main value is not the dollar or bitcoin.

It is relationships between people.

Any relationship is created and developed by believing in a person or team.

State currencies are not backed by physical assets.

One currency is stronger than another because people believe in it more.

The capitalization of Tesla and similar companies are thousands of times greater than their annual profit and is based only on belief in future success.

In Airbnb, people with high Karma rent an apartment more quickly.

In Facebook and Instagram, people try to verify their accounts, so that the others believe their posts.

In Uber, passengers with high Karma get drivers with high Karma.

Belief is a powerful mechanism for creating projects and developing society.

In any community, a high level of trust reduces transaction costs and creates a breeding ground for the growth of well-being. The higher the level of trust the lower the costs of finding a counter-party, checking reliability, drafting and negotiating contracts, insurance, lawyers and court services. Belief can even replace the marketing budget and reduce the cost of goods and services.

Today, there are few tools that help to understand: should I believe a person or not, if you do not know him personally. You can look at their social network profile or Google him. But if a person does not like to speak publicly, the only way to figure this out is to find a short, straight chain of friends between you, which is quite difficult.

Karma is a project of digitizing trust in people.

A transparent ecosystem, with reliable storage of data about how well people keep their promises.

The most obvious measure of belief in a person is how much money they are ready to give him. Look at any ICO: the more famous people (sponsors) on the board of directors, the more money the project collects. Moreover, a neighboring project with similar functions collects less money, because there are fewer trusted people in it. Therefore, one of the mechanisms of accumulation and measurement of belief is the history of financial relations of a person with other people.

Karma is an ecosystem with the ability to design an endless number of options for relationships between people and communities. From pawnshop loans to social interest-free loans with an open return date. Due to this variety and flexibility, the system becomes stable under any economic conditions.

Global tasks of Karma as a financial and social project:

- Creation of opportunities for fast and economical P2P exchange. At times faster and cheaper than existing methods.
- Accelerating the turnover of money and other resources in the economy.
- Alignment of resource allocation between countries and communities.
- Smooth transition from the credit fiat economy to the creation of a netting economy and an interest-free exchange of resources, where money is just a transaction coefficient and a commitment to supply goods.
- Establishing a network of trusted relationships around the world.

- A powerful impetus for the development of society. If we simplify access to finance and increase the level of trust, people will be able to solve core life issues quicker and focus on tasks in a fundamentally different and more positive way.

15. Disclaimer

To the extent the Tokens sold in connection with this Token Sale may be securities under U.S. Securities Act of 1933, these Tokens are offered only outside of the United States to non-U.S. persons, pursuant to the provisions of Regulation S of the U.S. Securities Act of 1933, as amended. These Tokens have not been and will not be registered under the Securities Act, and may not be offered or sold in the United States or to U.S. persons absent registration or under an applicable exemption from the registration requirements and the

purchasers should not assume they will be able to resell their Tokens in the United States. Neither the Securities and Exchange Commission nor any state regulator has passed upon the merits of or given its approval to the Tokens, the terms of the Token Sale, or the accuracy or completeness of any associated materials. Buying Tokens involves risks, and purchasers should be able to bear the loss of their entire purchase. All purchasers should make their own determination of whether or not to make any purchase, based on their own independent evaluation and analysis.