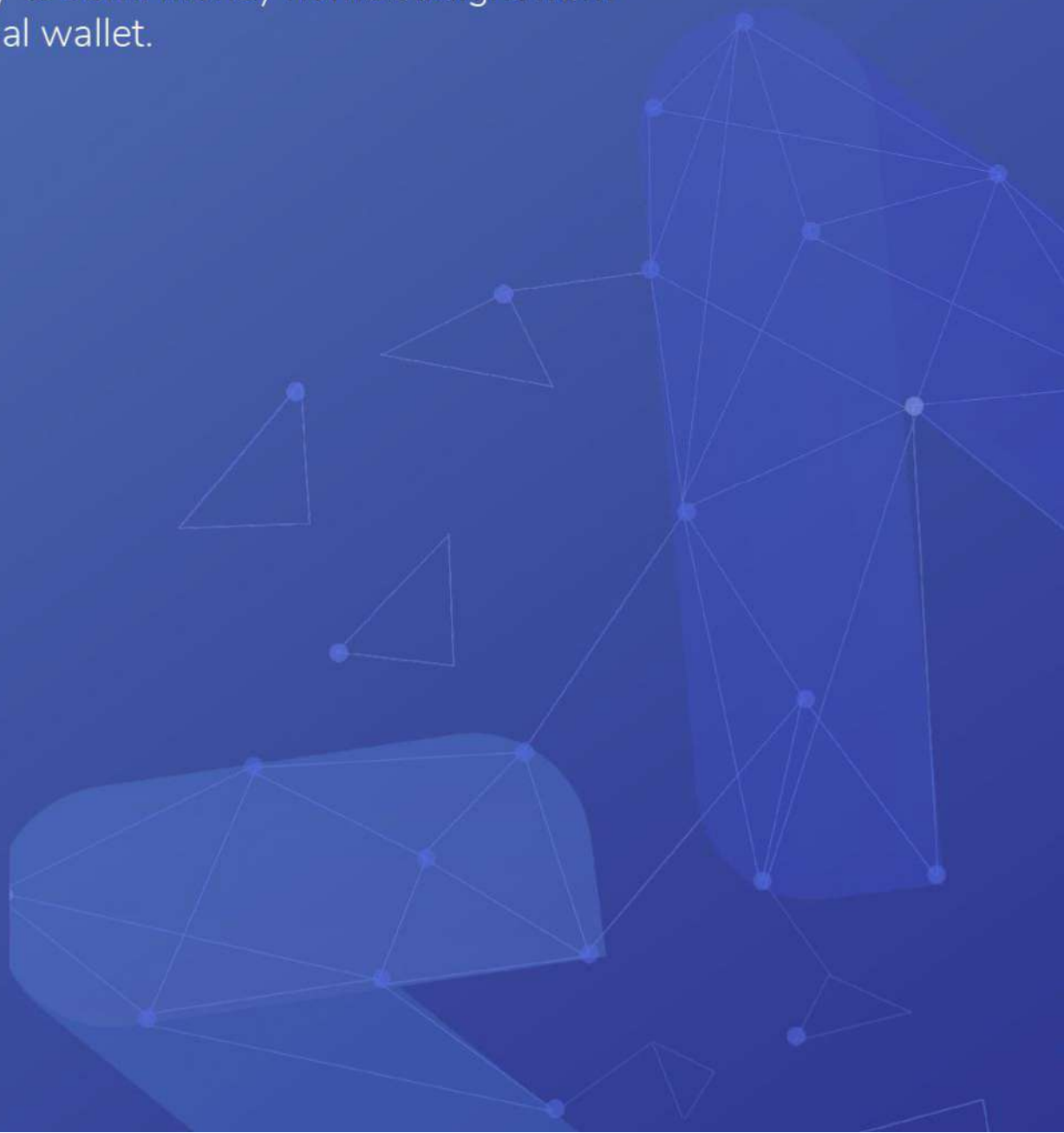




WHITEPAPER

# Blockchain-based decentralized money transfer powered by users.

Possibility to send money home straight from  
your virtual wallet.

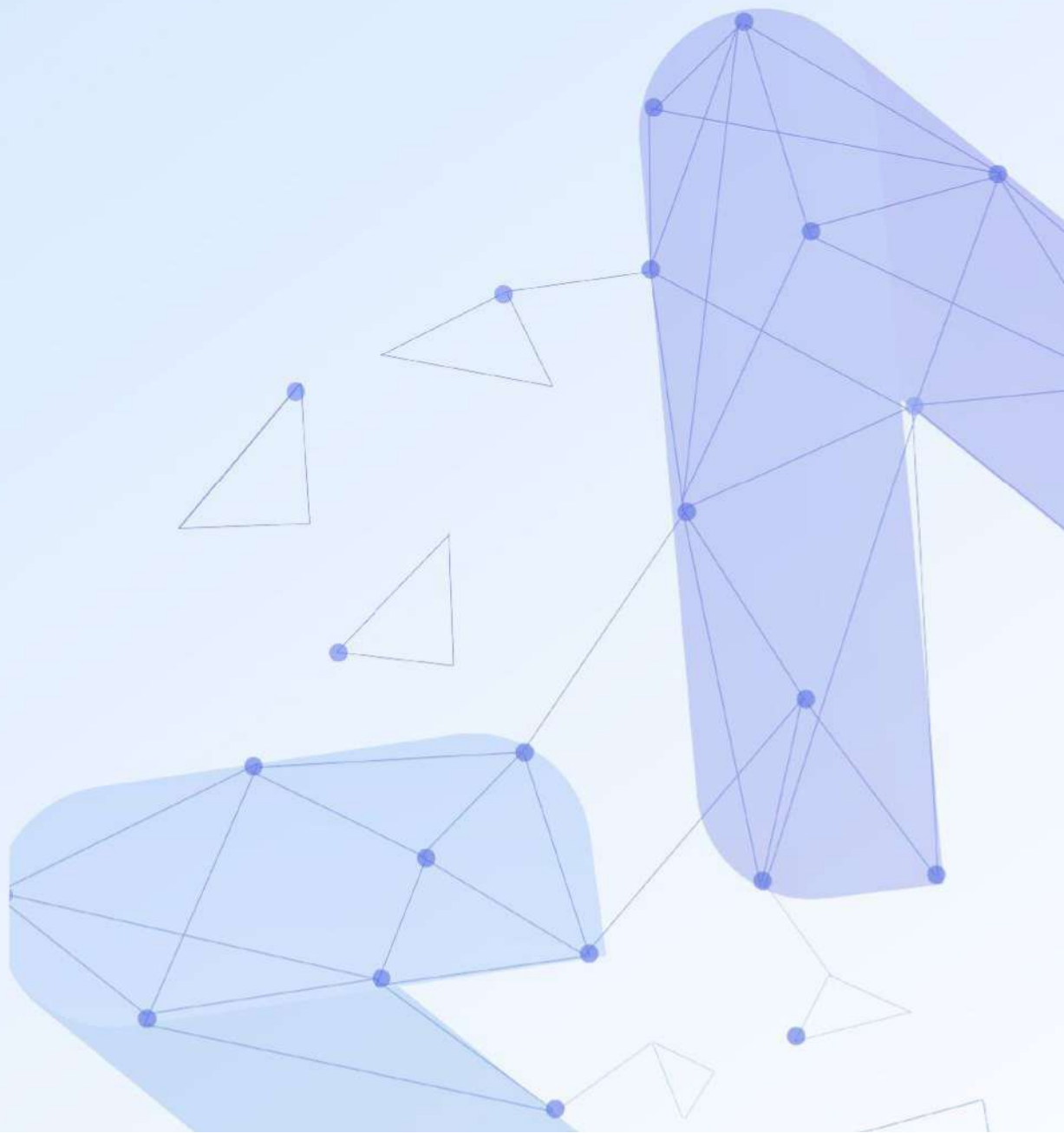




No bank account needed for the end-user.

First blockchain-based reversible money transfer method.

Looking to make MigrantCoin the preferred coin for the payment of migrant workers.



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## Abstract

This whitepaper introduces a new Money Transfer Method and MigrantCoin, a new token as the incentive mechanism for the masses of people who work abroad or who see themselves forced to leave their country. With MigrantCoin, individual users can send money home or to others while having the guarantee of minimum effort and maximum security.

As blockchain technology continues its growth, platforms become increasingly more capable to manage transfers practically in real time. Blockchain is turning into an important instrument for cross-border payments/remittances. Unlike conventional payments frequently moved by payment processors, for example, through banks, blockchain payments occur right in the system. The outcome: payments occur at a faster pace. MigrantCoin improves the speed of sending money in cash by using blockchain and it solves the delivery problem, meaning it solves the main delay reason.

Main assets Migrantcoin are: EUPIO Trademark no 017767071, EPO Patent pending 18020085.9 and Patent pending EP18020375.4

The patent-pending MigrantCoin may also be used by contractors or governments for the payment of migrant workers. When an immigrant arrives in a foreign country and finds work, they may find it more convenient to receive payment in MigrantCoins, which would make it easier for them to send money home. MigrantCoin uses blockchain for the storage of consumer identities and it includes a private platform for payments. The following sections of the paper will approach these aspects in further detail.

The value of blockchain lies in allowing secure transactions to those who could not afford online banking. Cryptography protects the entries contained by the blockchain. Network members hold private keys allocated to the dealings in which they are engaged. These keys are pretty much similar to a signature, a secured digital one. If a modification were to occur, the signature would become invalidated and the network of peers would receive a prompt notification of it.



## Introduction

Just about every report, article, or book reviewing the benefits of cryptocurrencies discusses the opportunity of remittances. And for good reason. The largest flow of funds into the developing world is not foreign aid or direct foreign investment. Rather, it is remittance money repatriated to poor countries from their diasporas living abroad. <sup>(1)</sup>

This could be the essence of MigrantCoin goals and possibilities.

MigrantCoin is a registered trademark <sup>(2)</sup> and it concerns the improvement of the patent application no. 18020085.9 - 1217 regarding a money transfer method. MigrantCoin enables the transfer of money while saving time and costs.

According to the most recent data at hand, across the world, 31% of the adult population remains unbanked<sup>(3)</sup>, with 26% of them reporting that they do not have a bank account because accounts are expensive, while 22% state that financial institutions are too far away<sup>(4)</sup>. Imagine someone having to spend at least two hours when sending money, because he/she needs to travel to a bank found in another town or, conversely, when receiving it, because of the same reason.

Considering the massive number of people remaining unbanked (1.7 billion as of 2017) <sup>(5)</sup>, the patent-pending MigrantCoin offers a solution that is both cost-effective and time-saving and, for the first time, reversible. We will explain further in the paper the reversibility of this process. Having a computer or another kind of equipment that could enable the operation of complex digital transactions is a luxury for immigrants. What most people do have, however, is mobile phones. In fact, a report from Zenith <sup>(6)</sup> shows that, as of 2018, about 66% of the population in 52 countries has a smartphone. And this has the capability to relieve them of a significant burden in terms of money transfer.

When confronted with limited employment prospects in their home countries, increasingly more people choose to move abroad in hopes of finding work that better suits their qualifications and their families' needs. The Use of Remittances and Financial Inclusion <sup>(7)</sup> shows that, from a macroeconomic viewpoint and when aggregated, remittances demonstrate considerable potency. <sup>(8)</sup> In 2015, "approximately 25 countries receive 10 percent or more of their GDP from remittances"<sup>(9)</sup>. This is massive and demonstrates just how important the international/cross-border money transfer market is.

Many of those who remit money are potential beneficiaries of a blockchain-based money transfer method powered by users, i.e. MigrantCoin. In the following sections, we will take a closer look at the money transfer market, the difficulties of money transfer, the opportunities, the overview of our platform, while we also approach topics such as smart contracts, future work and, of course, the token sale.

## Money Transfer Market

Significant communication requirements apply to the usual cross-border money transfer. And the requirements concern both the sender and the receiver of the money. The communication chain includes complex operations of exchange rate calculations, the gathering of personal data, the agreement on the adequate manner of transfer, the synchronization of the transferred amounts, the confirmation of the time when the money is sent, and, finally, the confirmation of the time when the money is received.

Worldwide and most frequently, migrant workers are the main source of money transfers. These are men and women who chose to move – provisionally – to other countries, in search of jobs that pay better than in their home countries <sup>(10)</sup>. The recipients of the transferred money are their families or their friends who continue to live in the home countries and who are rather dependent on the money sent from abroad.

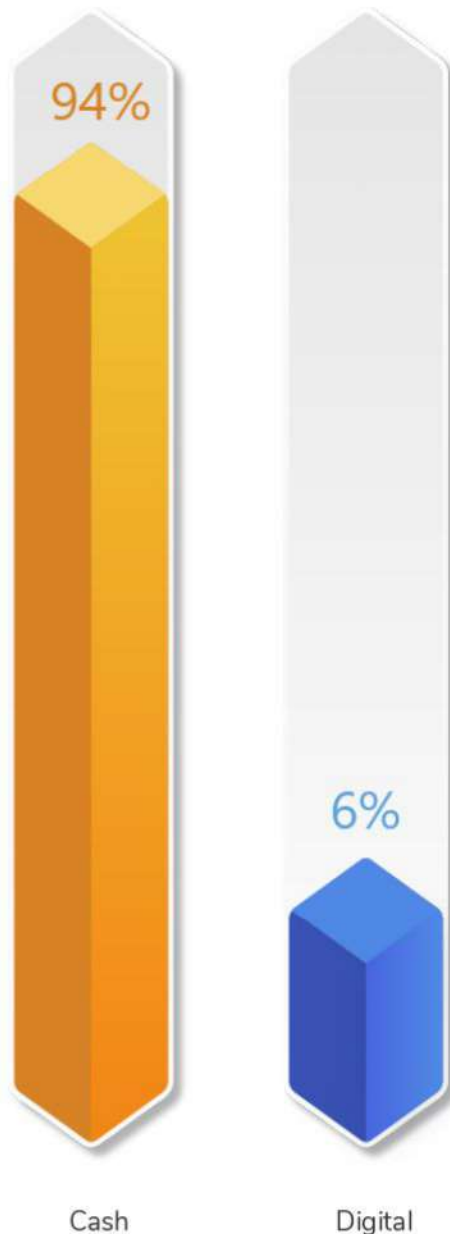
However, people do not immigrate for economic reasons alone. Conflicts or instability/unrest in their home country may push them abroad. Educational <sup>(11)</sup>, health <sup>(12)</sup>, and environmental <sup>(13)</sup> factors stand for other significant reasons for migration.

Migration is subject to diverse economic, environmental, political, and social factors: either in an immigrant's country of origin (push factors) or in the country of destination (pull factors) <sup>(14)</sup>. Traditionally, factors such as economic prosperity and stability at the political levels have a substantial influence on migrants/refugees <sup>(15)</sup>. All these lead to the creation of a massive money transfer market base, which, of course, does not go ignored by banks, financial institutions, money transfer operators, and so on and so forth.

Globally, the number of transnational migrants increased to 258 million in 2017. This means that, as compared with the year 2000, the share of transnational population of the globe saw a modest rise, from 2.8% (in 2000) to 3.4% (in 2017). <sup>(16)</sup> Nevertheless, such a large number of migrants is bound to entail significant competition at the level of those who provide money transfer/remittance services.

After two consecutive years of decline, remittance flows to low and middle-income countries (LMICs) increased by an estimated 8.5% in 2017, to reach \$466 billion, a new record (table 1.1). Remittances are now more than three times the size of official development assistance (figure 1.1). Excluding China, remittance flows are also significantly larger than foreign direct investment (FDI) in LMICs. Remittances are relatively more stable than cyclical private debt and equity flows. These figures reflect only officially recorded data; the true size of remittances, including flows through informal channels, is significantly larger. <sup>(17)</sup>





## Money Transfer Operator Market Share By Channel

Cross-Border Transfer Only

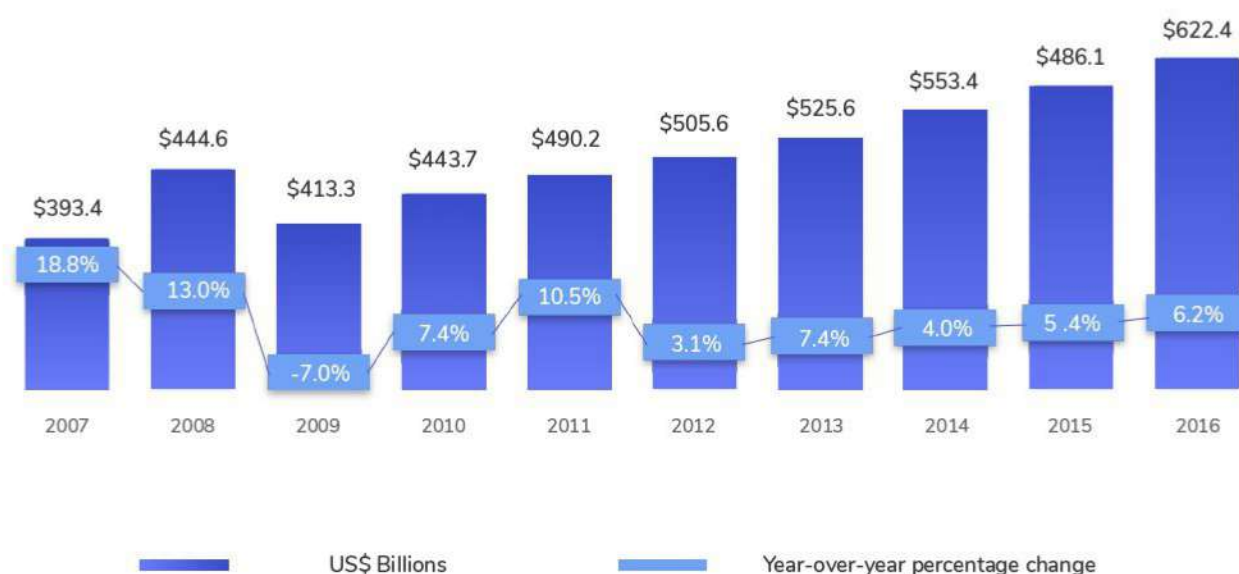
If we look at Europe, banks and money transfer operators control the money transfer market, which makes them the main remittance service providers. One of the preferred methods of European migrants when sending money to those at home is still cash-to-cash. And this happens, in fact, all over the world, as seen in the following chart.

Even though, usually, the price of transferring money to urban and rural markets is the same, the rural recipients' overall cost rises, considering the distance and time needed in order to actually collect the transmitted amounts. In Europe alone, there are more than two hundred remittance service providers, including money transfer operators, postal offices, and bank organizations. ( )

Across the world, money transfers until 2016 equaled up to \$622.4 billion.

## Global Cross-Border Consumer Transfers, 2007 to 2016 (In US\$ billions, year-over-year percentage change)

Source: Aite Group



## Money Transfer Difficulties

Having grown rapidly since the 1970s, workers remittances have become an increasingly important channel for meeting the external financing needs of developing countries, eventually proving to be one of the largest sources of such financing. <sup>(19)</sup>

The following chart illustrates an extent of the shares held in the remittance market by remittance players (service providers) (with data valid as of 2014).

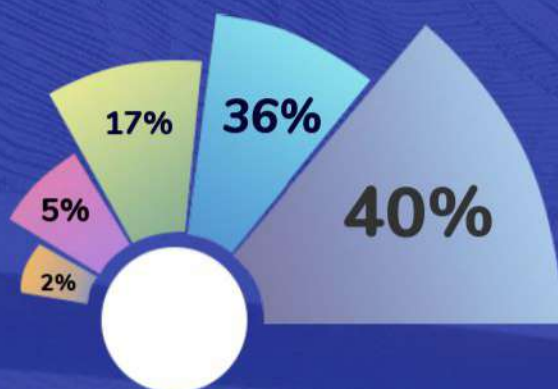


# The Money Transfer Industry

MOVES

## \$500 billions per year

\$413 flows to  
developing countries



RIA MoneyGram Western Union Others Informal Players

As illustrated, formal remittances go into a country by using official banking channels and specific money transfer operators. Of these, Western Union is the leading one. Additionally, commercial banks, post offices and other remittance service providers deliver formal procedures of moving money.

“Informal players” means money transfers conducted via non-registered, private channels, for example, cash delivered by one’s friends or one’s family members.

Usually, cross-border payments have faced several challenges: high transfer and conversion costs, protracted and unreliable funds transfer time frames, and absence of cost transparency. Most people first consider their bank when they want to transfer money home. Using the bank may seem a choice at hand – if you have an account. Indeed, bank-to-bank transfers may be quite safe, but the transfer costs involved may be rather high. Additionally, what happens with those who are unbanked – on both ends of the transaction? Or to those who are not familiar with the payment devices involved by banking transactions?

Next, there is the possibility of sending money via online money transfer providers, for example, TransferWise or Paypal, but again, the parties of the transaction need a bank account. Then, there is the option of money transfer operators such as MoneyGram or Western Union. They are known for transferring money swiftly to virtually anywhere. Such worldwide wire transfers are especially convenient when the beneficiary (end-user) does not have a bank account, or he/she lives in an isolated or inaccessible area. Nevertheless, fees for the quick transfer of money anywhere in the world may turn out to be higher than other possibilities for the same transaction; moreover, the greater the amount of money sent, the higher the fee.

The exchange rates paint another aspect acting on the money transfer process. They may have a profound impact on the money reaching the recipient. Furthermore, the strongest effect is visible at the level of the larger transferred amounts. This happens because the volatility of the foreign exchange market is unusual. Generally, the migrant worker does not want to worry about how the exchange rate will affect him/her. The migrant worker is interested in sending an amount of money as large as possible to his/her family, without having to pay a fee that feels like an additional burden to the actions he/she may have to take in order to see the money sent.

And the exchange rate is just one of the details attached to additional costs in the money transfer. Providers apply substantially different fees for the transfer of your money. While some may offer more attractive exchange rates, they may, on the other hand, require more significant transfer fees.

Summing up to this point, the difficulties encountered by migrant workers with regard to the money transfer options relate to their need to send money home as fast as possible, with as little costs as possible, in a safe manner (guaranteeing that the money does reach its destination) and also in a convenient manner (meaning that the points of access to the money transfer should be in the vicinity, that the times to conduct the money transfer should also be adequate for the migrant workers, and that there should be as few administrative burdens as possible).



*The Use of Remittances and Financial Inclusion* <sup>(20)</sup> identifies five types of a hindrance to access or use of formal (regulated) money transfer services. We will enumerate them as listed in the cited paper:

- Widespread use and preference for unregulated transfer services. Although less secure, unregulated remittance transfers can be more convenient for migrants, and they are sometimes the only alternative, thus making it difficult to change habits
- Inconvenience and excessive costs of MTOs: identification requirements; distance to the point of service
- Lack of transparent information with a clear cost structure
- Lack of familiarity with mobile or Internet-based transfer methods: contactless experience, new processes and new actors in the market are often the targets of mistrust
- Lack of integration between payment and remittance platforms

In brief, all over the world, many people are unbanked (non-banking), meaning that they do not have bank accounts and they are not familiar with the payment devices involved by banking financial operations. Moreover, most of them cash money through occasional (informal) deliverers, risking the loss of money or its non-receipt at the destination. Sending money to different destinations is rather difficult and risky because the method is not controllable. Therefore, the existing solutions are not accessible to every person, wherever he or she may be.

## Opportunity

One first opportunity is the development of a method for money transfer. This method should be accessible to people who do not have bank accounts, via their mobile phones.

MigrantCoin is the first cryptocurrency-based reversible money transfer method. Cryptocurrency transactions are irreversible. Therefore, as a rule, after the delivery of the cryptocurrency amounts occurs, the reversal of the transaction is not possible. For this reason, the sender usually needs to check and double-check whether his/her recipient's address is correct before he or she operates the confirmation of the transaction and then the payment. Otherwise, when transactions conducted in virtual currency occur, reversal is impossible, because of the system. If you make a mistake, you cannot undo it, you cannot undo the transaction.

The above-mentioned issues have created the need for pioneering solutions, and pioneering solutions are paving the way for cryptocurrencies to release transformational effects upon the opportunities at hand. So, what are the prospects generated by the shift to cryptocurrencies for remittances?

MigrantCoin will act on the concept of PoD – Proof of Delivery – as both proof and reward method. In Q4 2024 we will develop, in parallel with the delivery operators, a people-based cash delivery system. This means that people (individuals) may subscribe/sign up for the system/application and they can make the delivery on their own; They will receive payment for such deliveries and, based on the speed of delivery, they will also receive rewards.

MigrantCoin will also act on the concept of PoS – Proof of Speed – to reward fast delivery. Such people are already a reality. They are active people who, for distinct reasons, did not leave and remained in these communities, where they run errands for the families of the migrants (repairs/documents, etc.). These people could be the right choice for the delivery process since they are already known as trustworthy.

**Security:** With the MigrantCoin reversible transaction, there is a guarantee that the transmitted money does reach its intended beneficiary while ensuring the identification of any error.

**Access:** With cryptocurrency, remittance systems can go around the banking setup. This means the complete avoidance of the major challenge for the 1.7 billion people who continue to be unbanked <sup>(21)</sup>. And a mobile phone adds to and promotes this opportunity.

**Speed:** Cryptocurrency-based transactions occur in a matter of seconds or minutes and the sender does not need to worry about the place from where he/she is initiating the transaction.

**Transparency:** All the aspects relating to fees and prices attached to the transaction are visible. Moreover, the amounts of money transmitted via the system are traceable, by using the essential characteristics of blockchain.

**Reach:** Given the fact that the mobile phone penetration rate is at 66% at present <sup>(22)</sup>, a mobile service could provide quick cryptocurrency transfers.



## Our Platform Overview

MigrantCoin is a method of money transfer to a predefined destination, a beneficiary who does not necessarily have a bank account. First, the sender installs an application on his or her mobile phone. Second, the application requires him or her to sign up and then to log in, properly undergoing the KYC process.

Then, with fiat money, the sender tops up the account in the application. Once the sender adds the funds in the account, he or she chooses a method (a delivery operator) by which the money can reach the beneficiary. This means either a courier or a paypoint service. With the operator selected, he or she can now send the money.

MigrantCoin processes the transaction and directs the money to a delivery operator who will be the point of contact with the beneficiary. When the operator delivers the amount of money, the recipient applies his or her electronic signature, to confirm the receipt of the money. Thereafter, the sender receives in the app a confirmation of the fact that the transaction is complete.

This type of money transfer has the following advantages:

- The money transfer is fast, accessible, and convenient;
- It minimizes the time of the transfer;
- It delivers maximum comfort for the user.

The figure below illustrates a simple layout for the money transfer method enabled by MigrantCoin, with the route starting from the sender, going through the exchange and the delivery operator, and finally reaching the receiver.



In this stage, the virtual coin already listed on market with an inner value; an exchange for crypto-currency converts it into a fiat coin, usually USD. By using the same protocol with an exchange for cryptocurrency, the amount of money instantly arrives in the account of a delivery operator that is also a signatory part of the same exchange for cryptocurrency, as shown in the picture.

The exchange for crypto-currency exchanges the money into fiat money or any other currency, USD, or Euro, by applying the exchange rate of the day.

In the last phase, the delivery operator sends the real money in cash to the predefined beneficiary by specific means.

For a better understanding of the money transfer method, we will look at the following scenario:

User A will send 100 pounds (from the UK) to user B (in RO).

STEP 1: User A installs the MigrantCoin app or she accesses the web version of the platform, to sign up.

STEP 2: User A will undergo the KYC process.

STEP 3: She tops up the account in the application (always with fiat money)

The top-up is possible in the following ways:

- a. Top-up from the personal bank account (instantly, like with Revolut) <sup>(23)</sup>
- b. For those who do not have a bank account, purchase from pay points.
- c. Top-up via ATMs

HOW DOES USER A SEND MONEY after the top-up?

- A. In Fiat money (MigrantCoin)
- B. In Crypto

If she picks option A, again she has 3 possibilities:

- a. To send it to User B's bank account (which is completely optional for User B)
- b. The beneficiary picks the amount from a pay point (e.g. OMV)
- c. In 24 hours, the amount arrives straight at User B's home

Assuming that User A picks option A(c) to send the money, in a matter of seconds after she sends it, the company providing the delivery services (e.g. Fan Courier, Urgent Cargus, etc.) is notified that a transfer has been made; the company receives information about the sender, beneficiary, the amount to be delivered, the beneficiary's address, etc.

The courier meets User B and the latter closes the transaction by validating it with an electronic signature. The courier enters the signature in the system and the transaction is successful. In the same system, A receives a notification of the successful delivery.

If she chooses B:

**wallet2wallet:** The MigrantCoin digital currency is sent directly to User B's wallet. To this end, User B needs an account on the platform, and he undergoes the same sign-up and KYC process. He is the one who chooses what to do with MigrantCoin, either keep it on the wallet or exchange it via us in fiat money and withdraw it in the bank account.

HOW ARE FEES PAID?

- A. in Fiat
- B. in MigrantCoin

## Anti-Fraud

When the Fiat Money reaches the delivery operator's account, so does data regarding the receiver (at least one valid phone number/e-mail information, etc.). If the delivery operator cannot reach the receiver, the fiat amount will remain in the delivery operator's account until clarification. If an error occurs, the process is reversible. Despite the generally accepted irreversibility of cryptocurrency transfers, the MigrantCoin method allows the rectification of errors



## Section I. Utility of the MigrantCoin token

MigrantCoin is one of the first projects in its sector of activity (i.e. remittance money transfer) seeking to use its own token (MIGRA) for the actual transfer of money. The target-users are migrants all over the world; however, any other person interested in the MigrantCoin services may use it.

The main ways in which the MigrantCoin token will be used are:

1. The MIGRA token will be used for the actual transfer of money and this can occur at the client's request; the MigrantCoin team or company will not enforce upon the client any specific way in which the latter should transfer money to whom he/she wants. Clients who choose to use the MigrantCoin token for money transfer will be at an advantage when compared with the client who will choose fiat money transfers, owing to the fact that they will pay considerably lower fees for the conducted transfers (by up to 60% lower).
2. The MIGRA token will be used for the payment of fees for the services provided by the MigrantCoin company.

*The MigrantCoin company values its clients; therefore, the first money transfer conducted through us will be free of any charge (please be aware that this will not include Home delivery).*

There will be three types of fees applied by MigrantCoin for the provided services:

- a. fee in fiat, applied and paid exclusively in fiat money;
- b. mixed fee, which includes fiat money and cryptocurrency (MIGRA);
- c. exclusive cryptocurrency fee, to be applied and paid exclusively in

MigrantCoin;

Our client is the only one who chooses the type of fee to pay for our services and, depending on his/her choice, he/she will have specific benefits. Every client has something to win when he/she uses MigrantCoin.

- **The client who chooses to pay the fee** in fiat money for our services will not be exposed to any risk relating to the volatility of the amount of money, and, after the payment of the fees, the sent amount will arrive in full at the beneficiary (end-user). In this case, the potential risk of volatility will be the company's responsibility. The fiat money fee will be paid 100% of the established fee.

- **The client who chooses the mixed fee** will not be exposed to the risk of price volatility either and the company will guarantee that the amount of money he/she sends will be the same as the amount received by the beneficiary. The fee paid in this case, however, will be 70% of the established one (thus, the client will benefit from a 30% reduction, as compared with the fiat money fee).





- **The client who chooses the exclusive cryptocurrency fee**, i.e. the fee in MIGRA, will undertake the risk of currency price volatility for the duration of the money transfer; the risk will be a minor one, given the swiftness of the transactions in the blockchain on which the MIGRA is initiated (the Stellar blockchain), but also the relatively high supply. In this case, the paid fee will be 40% of the established one (thus, the client benefits from a 60% reduction as compared with the fiat money option, and a 30% reduction when compared with the mixed fee choice).

<b>Smart contracts</b>	<p>By using Solidity, programmers and developers can explore virtually unlimited possibilities through the platform's Turing complete smart contracts.</p> <p>The flexibility provided by Ethereum for developing complex smart contract attracted early adopters making Ethereum the most widely used DApps platform</p>	<p>Stellar's smart contracts are simple and less flexible leading to limited use cases but greater security</p> <p>Stellar is open-source, distributed payments infrastructure and suitable for those developers and organizations which seek simplicity, making it the solution of choice for the FinTech industry</p>
<b>KYC/AML Compliance</b>	<p>NO</p> <p>Lacks any built-in KYC/AML features</p>	<p>YES</p> <p>Allows trading between KYC/AML approved addresses only and has a provision where certain accounts can be frozen</p>
<b>Liquidity</b>	<p>HIGH</p> <p>Reliant on third party exchanges</p>	<p>HIGH</p> <p>Stellar has its own built-in Distributed Exchange (DEX) where all native tokens can be listed and available to trade since Day 1 of their ICO/STO</p> <p>Stellar tokens can also be added to third-party exchanges</p>

The MIGRA token will be used for the payment of cryptocurrency bonuses for the MigrantCoin partners (e.g. courier service companies).