

# White Paper Ethicoins

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## SECTION I - INTRODUCTION

The Ethicoins project introduces an innovative ethical ecosystem supported by the blockchain designed to allow the management of virtual money flows.

The service will provide multiple solutions for the end user, as it will become a cryptocurrency interchangeable on the market both with other currencies and with legal currencies (FIAT), giving the end user the opportunity to spend in shops through a personal rechargeable card, provided directly by Ethicoins, which they can withdraw from bank and post office counters (ATMs), being able to spend on the proprietary platform to purchase products, donating 5% of purchases to charity.

Finally, the innovative deposit method by means of a physical token (ECS TKN), also supplied by Ethicoins with a two-dimensional barcode (QR code), i.e. a matrix, made up of black modules arranged inside a square-shaped white scheme, typically used to store information generally intended to be read by means of a latest-generation telephone and an innovative, intuitive and functional application, created based on programming through many CPU or cluster cores.

In fact, what follows is a technology based on a blockchain architecture that, ultimately, can reach millions of transactions per second, reducing costs for users, devolving part of the transactions to charity each time, allowing a quick and easy implementation and maintenance of decentralized applications, in the context of a governed blockchain.

IN EVIDENCE: THE CRYPTOGRAPHIC TOKENS REFERRED TO IN THIS WHITE PAPER REFER EXCLUSIVELY TO CRYPTOGRAPHIC TOKENS ON A BLOCKCHAIN LAUNCHED USING EOS.IO SOFTWARE.

ETHICOINS TOKENS, DO NOT REFER TO ERC-20 COMPATIBLE TOKENS WHICH ARE INSTEAD DISTRIBUTED ON THE ETHEREUM BLOCKCHAIN (ETH), ARE ISSUED IN CONNECTION WITH THE DISTRIBUTION OF EOS.IO TOKENS.

## Art. 1- In principle

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The blockchain technology was introduced in 2008 with the creation and launch of the world's first cryptocurrency, called Bitcoin (BTC), constantly implementing new knowledge from respected entrepreneurs and developers, who have tried to generalize the technology to support a wider range of applications, all on a single platform structured in blocks.

Initially, many realities structured as blockchain platforms encountered innumerable difficulties in supporting the functional, application-specific, decentralized blockchains.

Some of the most renowned, in 2014 BitShares, which is based on decentralized exchange and in 2016 Steem structured as a social media platform, have become widely used blockchains with tens of thousands of active users every day. They have achieved this by increasing their performance to thousands of transactions per second, drastically reducing latency to 1.5 seconds, eliminating transaction costs and providing a similar experience to that currently provided by existing centralized services.

Generally speaking, current blockchain platforms are severely penalized by high tariffs and limited computing capabilities that prevent profitable use.

## Art. 2- Requirements for applications on Blockchain

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In order to achieve extensive use, applications need a very flexible platform to actually meet the following requirements:

- Support of millions of users;
- Simplification in updates and bug recovery;
- Performance parallelism.
- Minimum latency;
- Fast performance in sequence;

## SECTION II - TECHNICAL DATA

### Art. 3- Support of millions of users

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To compete with companies like Facebook, Alibaba, Amazon and eBay, you need innovative blockchain technology with highly efficient management capabilities, as they alone have to manage tens of millions of active users every day. In some cases, an application may not be effective unless a critical mass of users is achieved, as it is essential to create a platform capable of managing a very large number of users. Application programmers need the necessary margin to provide users with free services, as they do not have to spend to use the platform, as it will only and exclusively in this specific case it will be more widespread.

## Art. 4- Simplification in updates and bug recovery

Enterprises that create blockchain applications need flexibility to implement them with new functionality first, as it must support the software and the constant improvement of intelligent contracts.

Complex software will unfortunately always have difficulties handling countless system bugs, although some apply the strictest possible formal verification, so the support environment must be efficient in order to be able to resolve bugs when they occur.

## Art. 5- Minimum latency

The platform must support low transaction latency, as to be optimal it must operate with a delay of a few seconds to get reliable feedback from the end user and be a winner despite existing non-blockchain alternatives, as long delays frustrate users.

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## Art. 6- Fast performance in sequence

The platform must support very fast sequential performance using parallel algorithms limiting dependent sequential steps to handle high volumes of users and their related operations.

## Art. 7- Performance parallelism

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The solution to optimize computing power is to divide the workload by using a greater number of central processing units (CPUs) in parallel via a network of computers that "collaborate" with each other to manage a large-scale flow.

## Art. 8- Choice to collaborate with EOS

After careful comparison analysis, EOS.IO software currently uses the only known decentralized consensus algorithm that has proven capable of meeting the performance requirements of Delegated Proof of Stake (DPOS) blockchain applications.

It clearly describes and applies how this algorithm works, specifying how those who hold tokens on a blockchain using this software can select block producers through a continuous approval voting system. Anyone can choose to participate in the production of blocks and will be able to produce blocks, provided they can persuade token holders to vote for them.

This software allows you to produce blocks exactly every 0.5 seconds and exactly one manufacturer is allowed to produce a block at a given time. If the block is not produced at the scheduled time, then the block for that time slot is skipped. When one or more blocks are skipped, there is a gap of 0.5 seconds or more in the blockchain.

In fact, the blocks are produced in cycles of 126 (6 blocks each, for 21 producers). At the beginning of each round 21 producers of unique blocks are chosen according to the preference of the votes cast by the token holders. The selected producers are scheduled in an agreed order from 15 or more producers.

If a manufacturer is missing a block and has not produced any blocks in the last 24 hours, it is removed from consideration until it notifies the blockchain of its intention to start producing blocks again. This ensures the smooth operation of the network by minimizing the number of missing blocks by not scheduling producers who have proved to be unreliable.

Under normal conditions a DPOS blockchain has no fork because, rather than competing, block producers work together to produce blocks. If there is a fork, the consensus automatically switches to the longest chain. This method works because the rate of addition of blocks to a blockchain fork is directly related to the percentage of block producers sharing the same consensus. In other words, a blockchain fork with more producers will grow in length faster than one with fewer producers, because the fork with more producers will have fewer missing blocks.

Furthermore, no block manufacturer should produce blocks on two forks at the same time. A block producer caught doing so will probably be excluded. Cryptographic evidence of such double production can also be used to automatically remove abusers.

Byzantine Fault Tolerance (Byzantine Fault Tolerance) is in addition to traditional DPOS allowing all manufacturers to sign all blocks, provided that no manufacturer signs two blocks with the same construction time or the same block height. Once 15 manufacturers have signed a block, the block is considered irreversible. Any manufacturer should generate cryptographic proof of its betrayal by signing two blocks with the same time stamp or the same block height. According to this model an irreversible consent should be reached within 1 second.

## Art. 9- Sequence of transaction confirmations (aBFT)

As typical DPOS blockchains have a 100% participation of block manufacturers. A transaction can be considered confirmed with 99.9% certainty after an average of 0.25 seconds after transmission.

In addition to DPOS, the software used by Ethicoins adds asynchronous Byzantine Fault Tolerance (aBFT) for faster achievement of irreversibility, as the aBFT algorithm provides 100% confirmation of irreversibility within 1 second.

## Art. 10- Transaction as proof of participation (TaPoS)

The software used by Ethicoins requires each transaction to include part of the hash of a recent block header. This hash serves two purposes:

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1. prevents the replication of a transaction on forks that do not include the reference block;
  2. signals to the network that a particular user and his share are on a specific fork.

Over time all users end up directly confirming the blocking chain, which makes it difficult to create counterfeit chains, as counterfeiting would not be able to migrate transactions from the legitimate chain.

## Art. 11- Partial assessment of the State Blockchain

The blockchain scaling technology requires the components to be modular. Not everyone has to perform everything, especially if they only have to use a small subset of applications.

An exchange application developer runs complete nodes in order to display the exchange status to its users. This exchange application does not need the status associated with social media applications. EOS.IO software allows any complete node to choose any subset of applications to run. Actions delivered to other applications are safely ignored if your application is never dependent on the status of another contract.

## SECTION III - COMPANY STRUCTURE

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### Art. 12- Company data

Company name:	Ethicoins
Legal form:	Owner member of Company
Nationality certification:	Malta (MT)
Share capital:	10.000,00 €

### Art. 13- Company references

Country:	<u>Malta</u>
Website:	<a href="https://ethicoins.io">https://ethicoins.io</a>
Facebook:	<a href="https://www.facebook.com/ethicoins">https://www.facebook.com/ethicoins</a>
Linkedin:	<a href="https://www.linkedin.com/company/ethicoins">https://www.linkedin.com/company/ethicoins</a>

Telegram: <http://t.me/ethicoins>

Instagram: <https://www.instagram.com/ethicoins.io>

YouTube: <https://www.youtube.com/ethicoins.io>

## Art. 13.1- External company references

Ethical Shop (ETHIC SHOP): <https://ethicoins.store>

Ethicoins Foundation (ECS FOUNDATION): <https://ethicoins.foundation>

Ethicoins Academy (ECS ACADEMY): <https://ethicoins.academy>

Blockchain: <https://www.blockchain.com>

Coinmarketcap: <https://coinmarketcap.com>

Scatter: <https://get-scatter.com>

EOStracker: <https://eostracker.io>

## Art. 14- The business plan (BUSINESS PLAN)

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Ethicoins was born from the idea of the founder Cav. Mauro Marasca, based mainly on the need to help others and finally to put in good light the world of cryptocurrencies, still obscure and of dubious moral value for many.

Precisely for this reason, part of all company profits will be automatically donated to charity, both by Ethicoins and the participating companies through an innovative ethical shop, and all transactions of individual users will be filed, catalogued and made recognizable by the actual name of the individual or by the company name of the legal entity, thus respecting the strict and effective anti-money laundering regulations.

All this will allow you to be connected directly to the main banking circuits, giving the end user the possibility to use a physical card, both to pay for everyday purchases and to withdraw money from bank counters (ATMs).

In order to meet the need to protect people also from a healthy point of view, the patent for remote payment using the physical remote card, following the Covid-19, will be a huge contribution to the whole community of both the cryptocurrency and the banking world.

In order to create an ethical ecosystem, it is essential to share, both to inform the less prepared people and to make the world of cryptocurrency grow together, bringing one's knowledge to everyone and creating a new generation of experts by forming an academy structured by the



main excellent minds who have already distinguished themselves in the past for creations and collaborations with other projects on a global scale.

As usual in the sector, a telephone application will give the possibility to manage everything, albeit with innovative features to support patents as the backbone of Ethicoins, as a further strong point a physical token to receive payments, not having to show any sensitive data but only a physical medallion symbol of innovation and maximum guarantee of personal and computer security.

## Art. 15- Action Plan (ROADMAP)

In order to carry out the project, Ethicoins has divided the growth path into 18 stages of work progress (SAL), in order to better organize all the bureaucratic organizational processes, assembling them with the operations of physical persons in synergy to obtain maximum yield with minimum waiting time for all parts, coordinated by an innovative management system based on the famous Gantt diagram.

Below are all the steps necessary for the realization of the project, divided into 3 phases:

### PHASE 1 - THE DEVELOPMENT

- (I) The idea
- (II) The strategy
- (III) The team
- (IV) The planning
- (V) The creation
- (VI) The inauguration

### PHASE 2 - THE CAMPAIGN

- (VII) The departure
- (VIII) The goal

### PHASE 3 - IMPLEMENTATION

- (IX) The contribution
- (X) The programming
- (XI) The conversion
- (XII) The ethical shop
- (XIII) The shipping orders
- (XIV) The purchasing
- (XV) The withdrawals
- (XVI) The application
- (XVII) The Tokens shipping
- (XVIII) The Academy

## Art. 16- The Team

CEO:	Cav. Mauro Marasca
Shareholder:	Cav. Mauro Marasca
Treasurer:	Mrs. Francesca Pisanelli

## Art. 17- The ethical shop (ETICH SHOP)

In 2020 we have countless examples of online shops making huge profits by connecting supply and demand through electronic platforms, such as eBay, Amazon, Alibaba and many others, some of which donate large amounts of capital to foundations, often their own.

Analyzing this current case, we notice some slight criticalities, as this way charity is done when it is strictly necessary, passing as almost obligatory or indispensable to advertise itself, and being under their management they often end up feeding a single project.

The ethical shop will automatically donate 5% (five per cent) of the company profits of the individual participating companies, whether they are small-medium enterprises (SMEs) or large organized distribution companies (large-scale retail chains), thus creating a network of ethical companies that donate little to the masses, all together in total synergy.

Ethicoins' experts have identified three macro-areas, (EARTH PLANET, HUMAN AND ANIMAL KINGDOM) on which to operate in parallel, not discriminating any form of racial or entity, precisely for this reason the quotas will be automatically divided as follows:

40% "THE PLANET" // 30% "HUMANITY" // 30% "THE ANIMAL KINGDOM"

Only through a constant collection and distribution of wealth will it be possible to help those most in need, creating a constant flow of redistribution in favour of the neediest.

## Art. 18- Payments in shops and cards (ECS CARD)

94.70% of businesses must rely on an external platform to guarantee the payment service in all activities to their end user, often creating delays in transactions and conversions, and penalizing their customers because there is a huge conversion cost, not to mention the fact that they always have to depend on an external intermediary, creating management and communication problems between the parties.

On the other hand, having all this in a single circuit, the steps are immediate, commissions are minimized, and the contact person is the same company.

Ethicoins has patented a rechargeable card similar to many realities on the market, unlike the fact that it will no longer be necessary to physically insert it or have to personally enter the

private code (PIN) to confirm payment beyond certain security thresholds, creating the first secure payment reality against Covid-19.

This payment system, which is very complex in terms of programming and feasibility, becomes simple and versatile for the end user, as it is sufficient to place the card on the mobile point of sale (POS) and verbally communicate its secret code to the creditor, as it will be replaced at each payment, making its reuse or cloning by third parties impossible.

## Art. 19- Cash withdrawals (FIAT)

Still today all the cryptocurrencies are labelled as "fake" virtual coins because they are not apparently tangible, but only when they become physical money, they are recognized as a tangible and expendable value where you prefer.

Using Ethicoins' rechargeable card, it will be possible to withdraw from bank counters (ATMs), giving the end user access to paper money.

Every operation will be free of charge, in agreement with international payment systems, not covering the direct service on the territory and, in order to guarantee anti-money laundering, today individual users will have ceilings set in relation to the customer profiling (KYC).

## Art. 20- The physical token (ECS TKN)

Making what is electronic physical is a paradox that has now become a reality and, since it is always at hand, the user communicates his payment channel by temporarily delivering the token to the debtor with the personal two-dimensional barcode (QR code), i.e. a matrix, made up of black modules arranged within a square-shaped white scheme, used in fact to memorize the personal credit string, destined to be read through any latest-generation telephone with the simple function of framing it from the debtor's own camera.

This functionality will be on the agenda in the near future, so it was decided to apply this procedure as well to make the project more sustainable in the medium to long term.

## Art. 21- The application (APP ECS)

The importance of facilitating the end user is indispensable for the success and sustainability of the project, which is why an application has been designed to be easily installed on the phone, in order to be able to manage functions that are essential to use all the services of Ethicoins, divided into two programming phases, such as

Pay with ECS cryptocurrency;

Accounting balance constantly updated;

Conversion from ECS to USDT, BTC, EOS and ETH;

Conversion to EUR, DOLLAR, POUNDS, YEN;

Receive notifications about all Ethicoins updates;

Immediate payment to QR code framed with access to the camera;

Immediate reloading of your card associated with the application profile;

Set your security level by setting a dynamic authentication code.

A single application to have all the potential of the project in one hand, making simple what would be complex for many users, giving sustainability to the project and making Ethicoins a consolidated reality in everyday life.

## Art. 22- Training (ECS Academy)

Training is essential to keep up with system changes and the arrival of a new era, which is why Ethicoins has decided to create a constantly updated reality to structure and plan future innovations, but also to help the user to keep up with them, as a true workaholic professional will always be constantly updated, while the individual user will find it increasingly difficult to find adequate, clear, simple and targeted information.

In order not to limit the power to knowledge and limit the end user, Ethicoins has planned to collaborate with all the realities of all existing companies and all nationalities in order to make this service global in favour of the end user.

## Art. 23- Charity (ECS Foundation)

Given the need to be constantly active in the implementation of this foundation and that it must be rigorously ethical, therefore neutral and global, Ethicoins has decided to plan in detail how the ECS Foundation should operate, structured by a very rigid Business Plan that outlines all incoming flows, 5% of company revenues, and divided equally to favour all micro-areas in need of benevolence, integrity, respect and protection.

The organizational structure was divided into three macro-areas, in turn divided into sections and multiple micro-areas, as follows:

**(I) THE PLANET: (40.00 % of the amount donated is allocated)**

1) Air section: (10.00 % of the devolved amount is allocated)

Acoustic pollution

Atmospheric pollution

Electromagnetic pollution

Climate change mitigation

2) Water section (10.00 % of the amount donated is allocated)

Poly protection

Protection of the seas

Protecting the oceans

Protection of rivers and lakes

Protection of marine biodiversity

3) Earth section (10.00 % of the amount donated is allocated)  
Deserts protection  
Protection of nature reserves  
Protection of forests and woods

4) Energy section (10.00 % of the amount donated is allocated)  
Wind power  
Biomass  
Geothermal Energy  
Photovoltaic  
Hydroelectric  
Solar thermal  
Energy efficiency

**(II) HUMANITY: (30.00 % of the amount donated is allocated)**

1) Young people: (10.00 % of the amount donated is allocated)  
Protection for the disabled  
Protection of minors  
Steinerian School  
Training courses  
Remote adoption  
Montessori School  
Protection against ill-treatment  
Protection against addictions  
Fund for medical expenses  
Support for scholarships

2) Adults: (10.00 % of the amount donated is allocated)  
Protection for the disabled  
Training courses  
Protection against ill-treatment  
Protection against addictions  
Fund for medical expenses

3) Seniors: (10.00 % of the amount donated is allocated)  
Protection for the disabled  
Fund for domestic workers  
Training courses  
Protection against ill-treatment  
Protection against addictions  
Fund for medical expenses

(II)	<b>THE ANIMAL KINGDOM:</b>	<b>(30.00 % of the amount donated is allocated)</b>
	Refuge fund	(7.50 % of the amount donated is allocated)
	Poaching fight	(7.50 % of the amount donated is allocated)
	Protects endangered species	(7.50 % of the amount donated is allocated)
	Intensive breeding fight	(7.50 % of the amount donated is allocated)
	Fund for veterinary clinics	(7.50 % of the amount donated is allocated)
	Natural oasis and parks	(7.50 % of the amount donated is allocated)

Having thus identified all the macro-areas in need and, dividing them into sections and micro-areas, the structural framework is well defined, now the flows are coherently channeled, what is needed is to further divide the individual capitals into productive quotas, so that they operate endlessly for the individual charitable humanitarian operations.

Below we present how every single capital will be divided up to make it produce infinitely:

Capital (C) -> Increased Donations (D) - Advertising (P) - Events (E) - Action taken (A) -> Capital (C)

100% (C) -> 100% (D) - 20% (P) - 30% (E) - 50% (A) -> 100% (C)

Using this leverage, Ethicoins will produce endless charity operations, never using capital directly, but only and exclusively using it to mobilize the institutions and bodies in charge, which will first of all be selected both for their ethics and for the results obtained in the specific dedicated micro-area, to ensure that the planned projects will be guaranteed and carried out with the utmost attention to detail as well as maximum yield, by not completing the initial capital.

## SECTION IV - IN CONCLUSION

### Art. 24- Corporate Governance

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Governance is the process through which people in a community can:

1. Reach a consensus on subjective issues of collective action that cannot be captured entirely by software algorithms;
2. Execute the decisions they make;
3. Modify the same governance rules through constitutional amendments.

A blockchain based on the Ethicoins software implements a Governance process that efficiently directs the existing influence of block producers. In the absence of a defined Governance process, previous blockchains have relied on ad hoc, informal and often controversial Governance processes that lead to unpredictable results.

A chain of blocks based on EOS.IO software recognizes that power originates with token holders who delegate this power to block producers. Block producers are given limited and controlled authority to freeze accounts, update faulty applications and propose changes to the underlying protocol.

The election of block producers is integrated into the Ethicoins software. Before any changes can be made to the blockchain, these block producers must approve it. If the block producers refuse to make the desired changes by the token holders, they can be excluded. If the block producers make changes without the authorization of the token holders, then all the other non-producer full-node validators (exchanges, etc.) will refuse the change.

## Art. 25- In conclusion

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Ethicoins' software has been designed based on experience with proven concepts and practices and represents a fundamental advancement in blockchain technology. The software is part of a holistic project for a globally scalable blockchain company, where decentralized applications can be easily implemented and governed.