

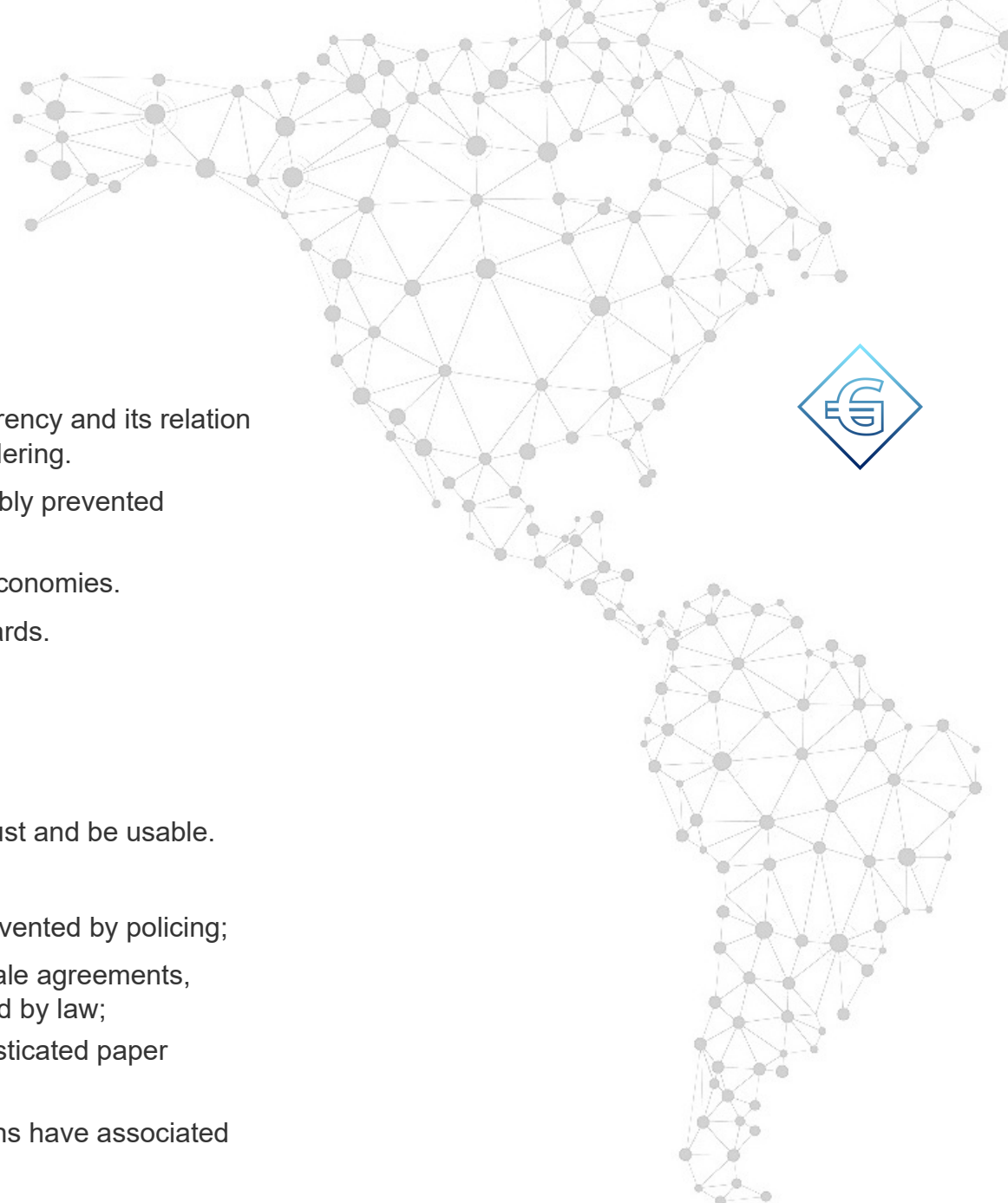


Gorbyte Regulatory Issues



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1 Introduction

This document introduces the problem of trust in the currency and its relation to theft and other illegal activities, including money laundering.

It then describes those illegal activities that can be possibly prevented by design.

It then describes the effect Gorbyte may have on local economies.

Finally it describes other regulatory issues, such as rewards.

2 Currency matters

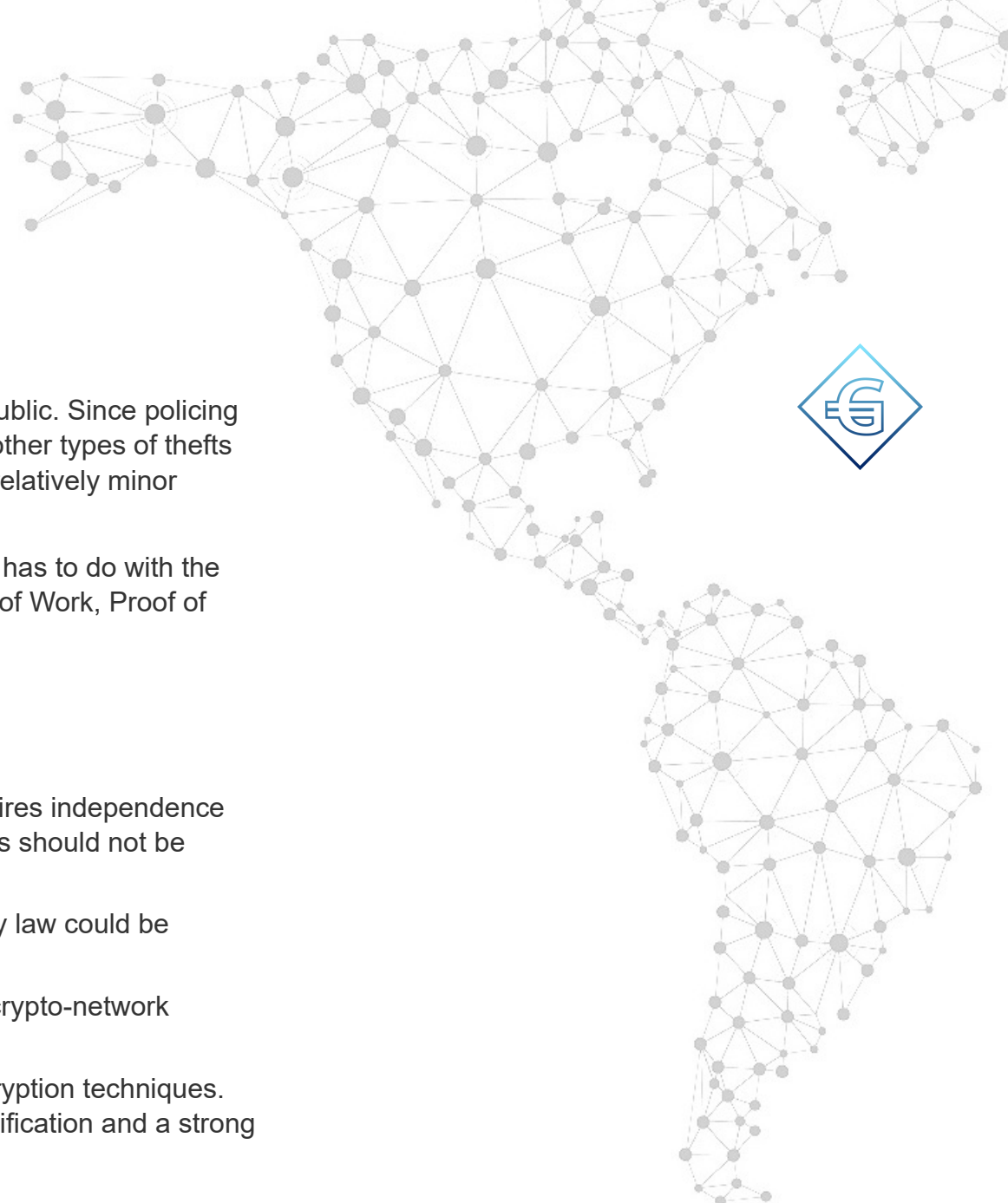
2.1 Trust

Currencies must be protected against attacks, to gain trust and be usable.

With fiat currencies, for example:

1. attacks to the system (e.g., bank robbery) are prevented by policing;
2. individual transactions among two parties (e.g., sale agreements, exchanges of assets, contracts) are also protected by law;
3. falsification and duplication is prevented by sophisticated paper materials, ink types and printing techniques.

None of the above protections is perfect. Such protections have associated costs and associated problems.



2.2 Costs

With fiat currencies the cost of policing is borne by the public. Since policing against currency theft or attacks to banks are similar to other types of thefts and attacks, such currency costs are hidden, and are a relatively minor percentage of policing costs.

With digital currencies, the cost of protecting the system has to do with the type of consensus mechanism used (e.g., miners' Proof of Work, Proof of Stake, or cooperative consensus).

The cost of peer to peer encryption is relatively minor.

2.3 Independence

The philosophy of unpermissioned crypto-networks requires independence from a controlling authority. That is, currency transactions should not be controlled by an intermediate entity.

In addition, it was hoped that the need of enforcement by law could be eliminated, because:

- Attacks to the system can be prevented through crypto-network security techniques (i.e., consensus mechanism).
- Individual transactions are protected through encryption techniques. These provide both, a strong defense against falsification and a strong protection of contracts.



Some crypto-networks¹ have been developed assuming that no policing is needed or wanted.

2.4 Fungibility

In the context of a currency, fungibility is the property that guarantees that all units of currency have the same value, that is they are interchangeable.

In a fiat currency, this is not always the case. For example, when a pack of cash notes that was specially marked, is stolen. The theft is publicized and this cash is now classified as dirty money. If the thief tries to sell those cash notes through an intermediate money laundering establishment, he will get much less than the nominal value.

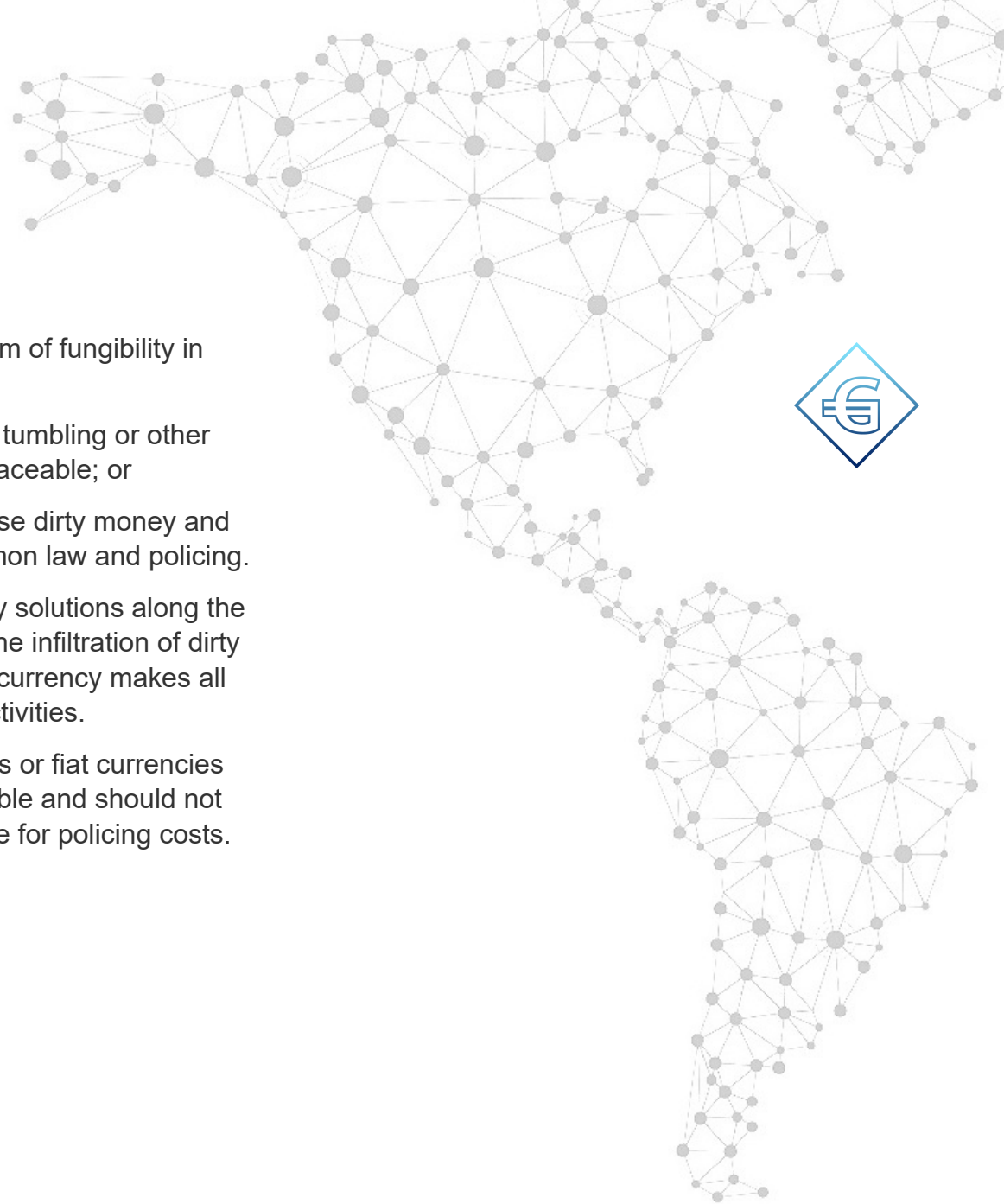
2.5 Infiltration of Dirty Money

In practice, we find that digital currencies have a similar problem. The reason is not because of the mechanisms protecting the currency, but because dirty money may infiltrate the system. We will show how in the next section.

Bitcoin currency (BTC) is traded at different exchange values, depending on its origin.

Recently, Elliptic² and Chainalysis³ were established to provide a service for Bitcoin users: to trace and expose dirty money that has infiltrated Bitcoin.

The same problem exists for other crypto-networks.

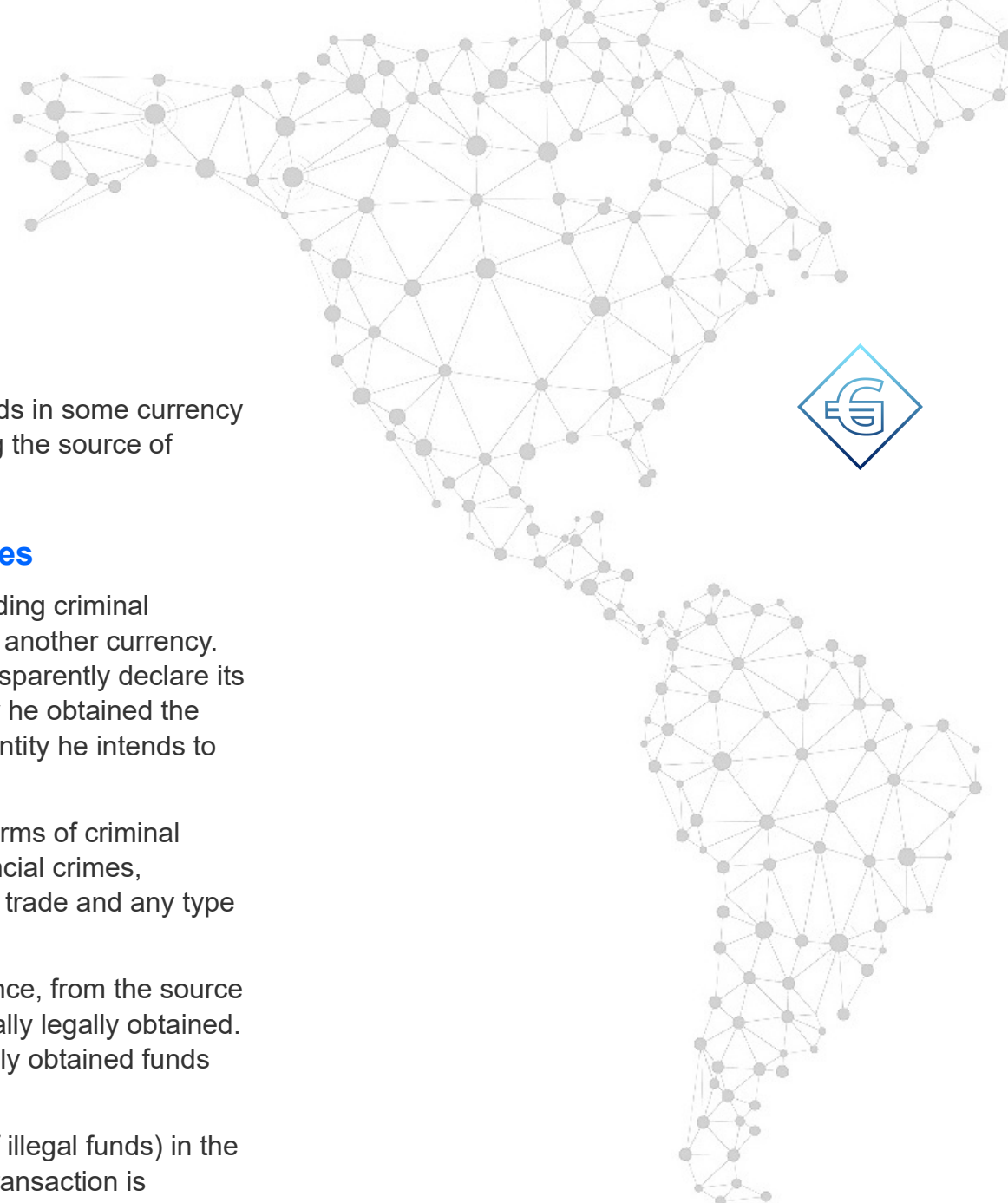


There are two possible approaches to solving the problem of fungibility in crypto-currencies:

- A) Force an equal value to all coins, through mixing, tumbling or other techniques, so that the origin of the coins is not traceable; or
- B) Allow currency transactions to be traceable, expose dirty money and prosecute theft and illegal activities through common law and policing.

A number of Bitcoin developers have proposed fungibility solutions along the lines of approach A). This approach does not eliminate the infiltration of dirty money, but hides it. Hiding the origin of such batches of currency makes all users equally complicit in tolerating profits from illegal activities.

In civilized societies, most people using financial services or fiat currencies agree that theft and other illegal activities are unacceptable and should not be tolerated. Most people are prepared to pay their share for policing costs.



2.6 Money Laundering

Money laundering is the transfer of illegally obtained funds in some currency to another currency or assets, with the intention of hiding the source of such funds.

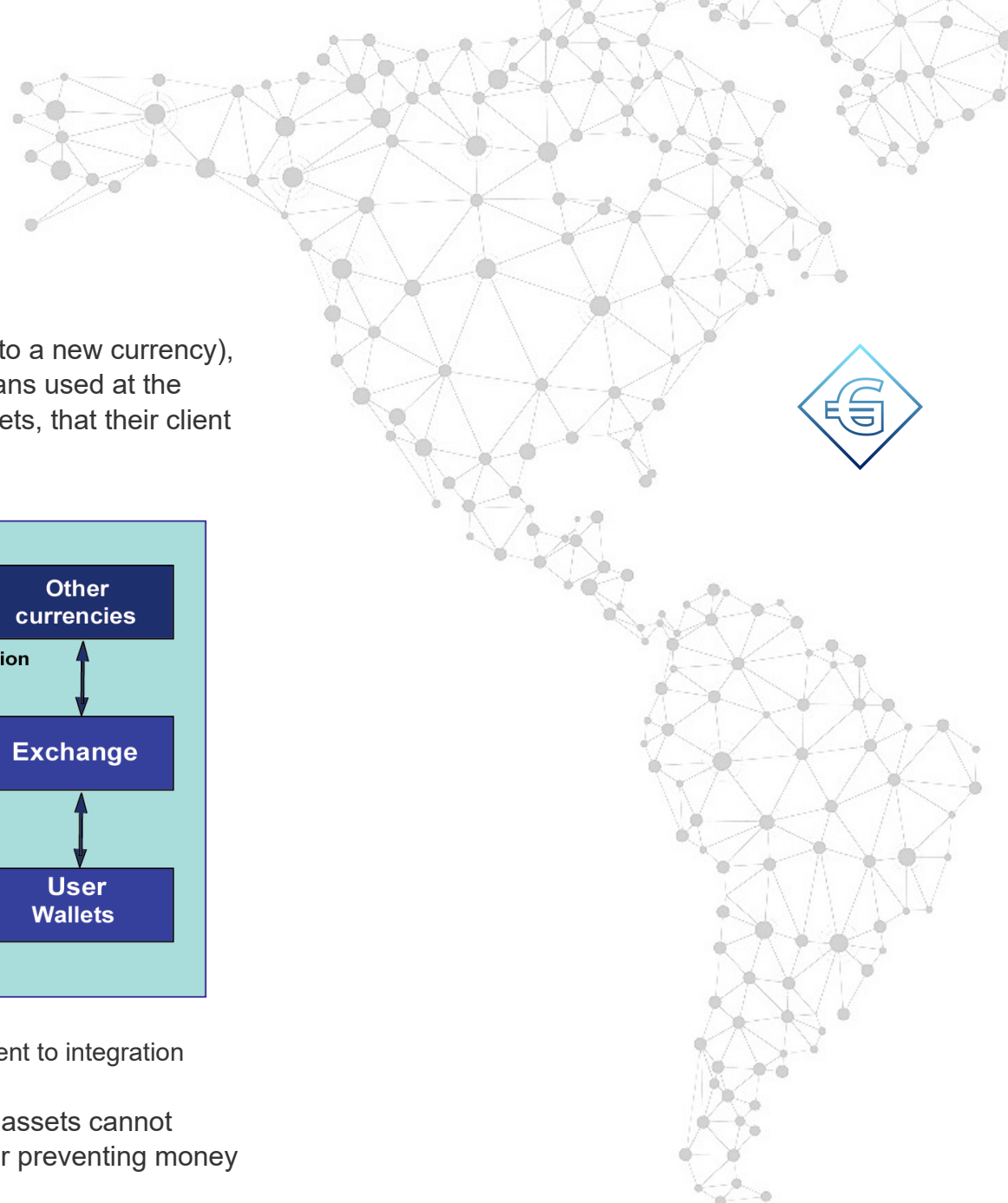
2.6.1 Prevention of Illegal Financial Activities

Money obtained from criminal sources or directed to funding criminal enterprises, can be prevented from being converted into another currency. This can be accomplished by requiring the owner to transparently declare its sources and accounts with the **original entity**, the entity he obtained the funds to be converted, and the **destination entity**, the entity he intends to convert currency to.

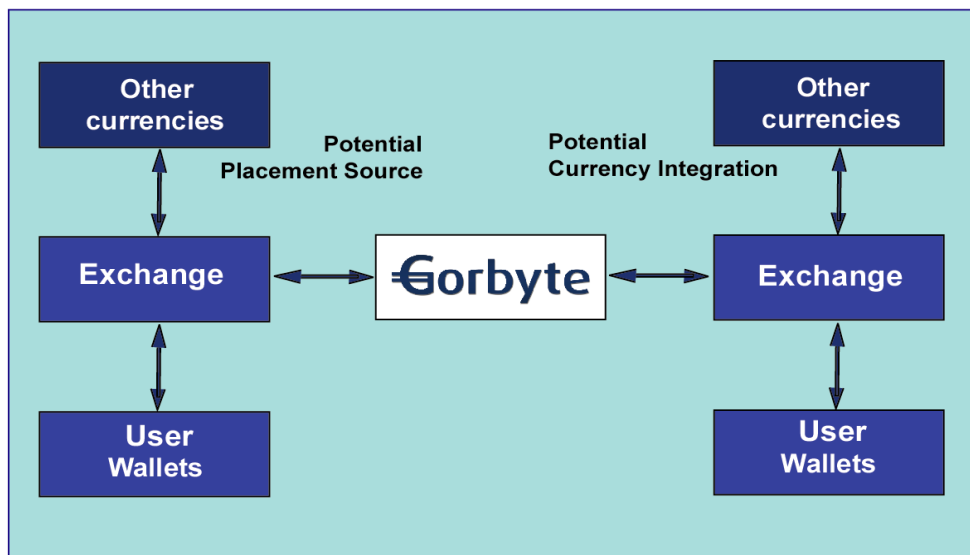
Furthermore, by enforcing such requirements, several forms of criminal activity can be curtailed, such as, but not limited to, financial crimes, terrorism, drug dealing, child pornography, the sex slave trade and any type of money laundering.

Prevention of money laundering involves getting assurance, from the source of currency, that the currency being exchanged was initially legally obtained. This is to prevent the “placement” (introduction) of illegally obtained funds into the financial system.

“Currency layering” (the attempt to hide the paper trail of illegal funds) in the blockchain is traceable, as the record of each financial transaction is auditable, not destroyable, and kept indefinitely.

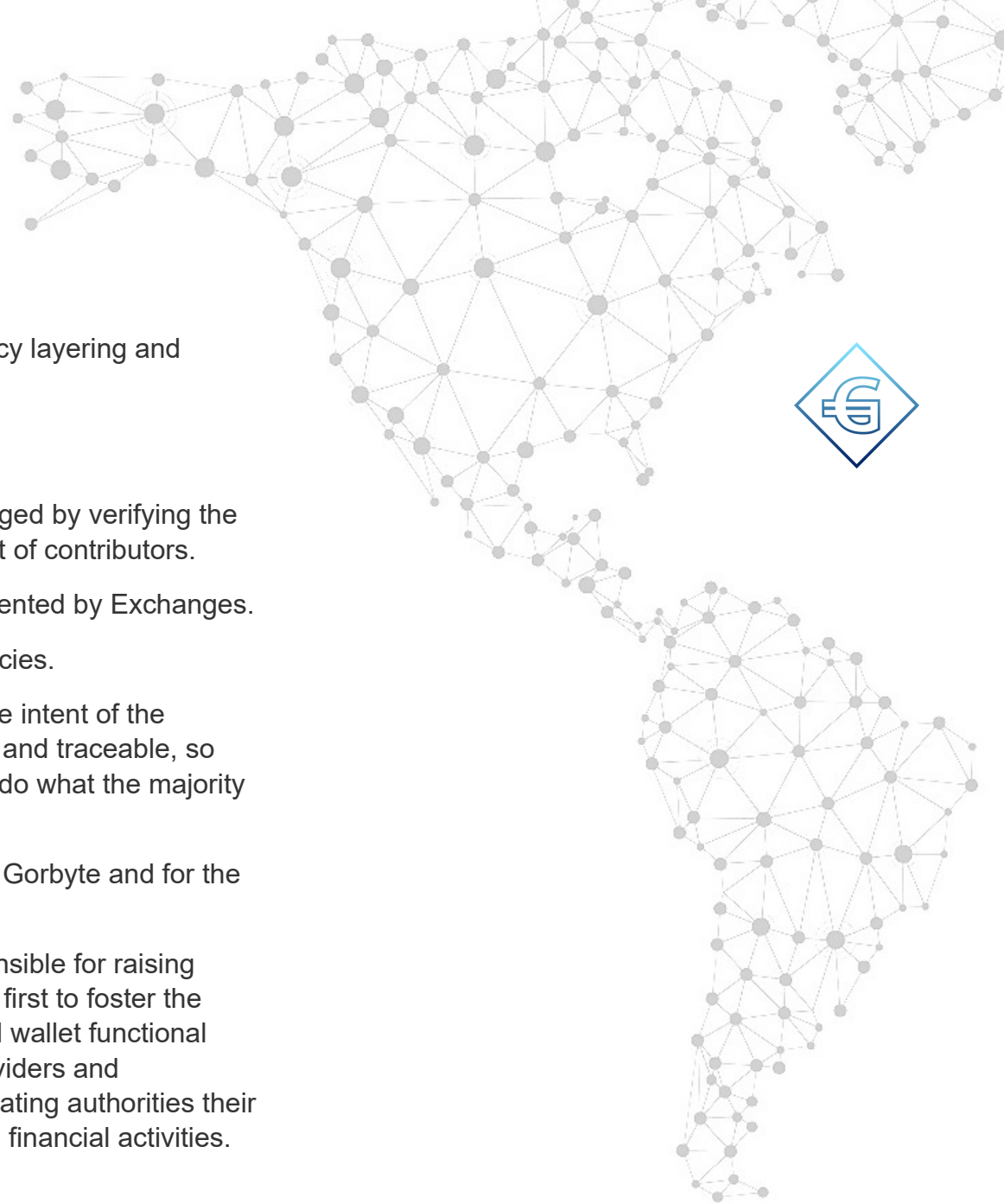


“Currency integration” (the introduction of illegal funds into a new currency), at the receiving end, can also be curtailed by similar means used at the source: assurances by the currency exchanges and wallets, that their client transactions are legal.



Drawing 1: Money laundering prevention, from placement to integration

Since crypto-currencies are created from scratch, illegal assets cannot initially be “in the system”, thus the most effective way for preventing money laundering in crypto-networks is to prevent placement.



If placement can be successfully prevented, then currency layering and integration are also curtailed.

2.7 Gorbyte's Approach

During the initial fundraising, placement can be discouraged by verifying the funds coming from initial investors and publicizing the list of contributors.

After the end of fundraising, placement can only be prevented by Exchanges.

Enforcement can only be provided by enforcement agencies.

Just as with fiat currencies, the system is not perfect. The intent of the Gorbyte crypto-network is to maintain transactions open and traceable, so that enforcement agencies, according to local laws, can do what the majority of people want them to do and pay them for.

This issue is important for the credibility and good will of Gorbyte and for the fungibility of its currency.

The **Gorbyte Foundation** is the entity that will be responsible for raising funds for the Gorbyte project. This foundation will be the first to foster the implementation of secure and transparent exchange and wallet functional entities. In a similar fashion, existing and new wallet providers and exchanges need to demonstrate to the appropriate regulating authorities their methods and means for dealing with prevention of illegal financial activities.

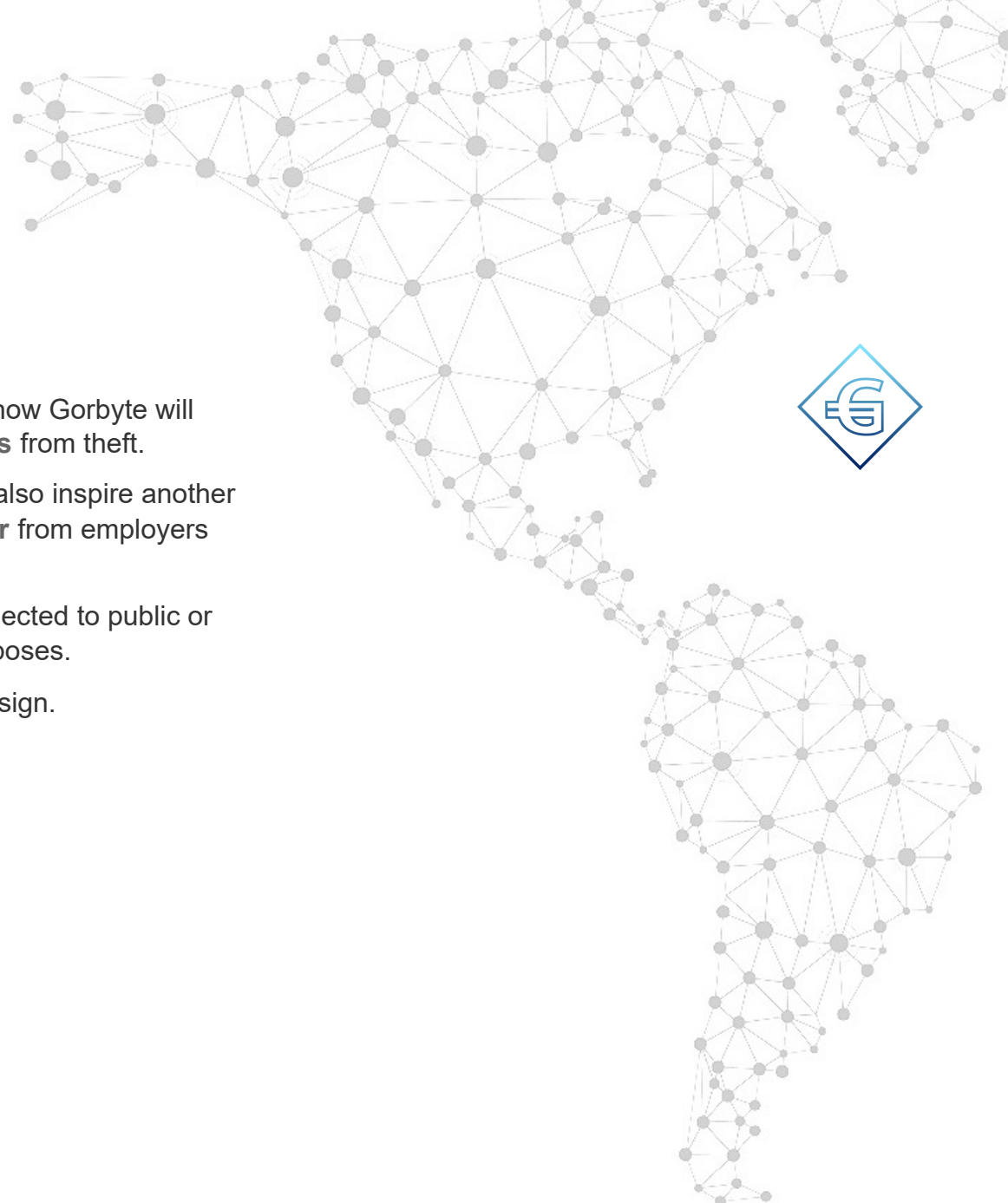


2.7.1 Contributor obligations

Investors and contributors to the Gorbyte Foundation are requested to refrain from contributing funds coming from illegal activities or directed to illegal activities. Enforcement can only be provided by local enforcement agencies, with the authorization of a judge. Gorbyte can only provide open and traceable transactions. For details, please see the “Terms of Use” and the “Campaign Terms” documents from the Gorbyte Foundation.

2.7.2 Forensic tracing

Funds contributed to the Gorbyte Foundation may come from the Bitcoin crypto-network, or indirectly from other crypto-networks. The Gorbyte Foundation is committed to substantial and aggressive enforcement against cyber-crime, fraud and theft. The details can be found in the “Campaign Terms” document from the Gorbyte Foundation.



2.8 Preventing Other Illegal Activities

The “Gorbyte Additional Features” document describes how Gorbyte will implement “Secure Vaults” to better **secure users’ funds** from theft.

The rewards granted to miners in the Nakamoto design also inspire another type of illegal activity: the **stealing of processing power** from employers and from servers not owned by the miner⁴.

There are also many reported cases where thieves connected to public or private electrical grids to steal **electricity** for mining purposes.

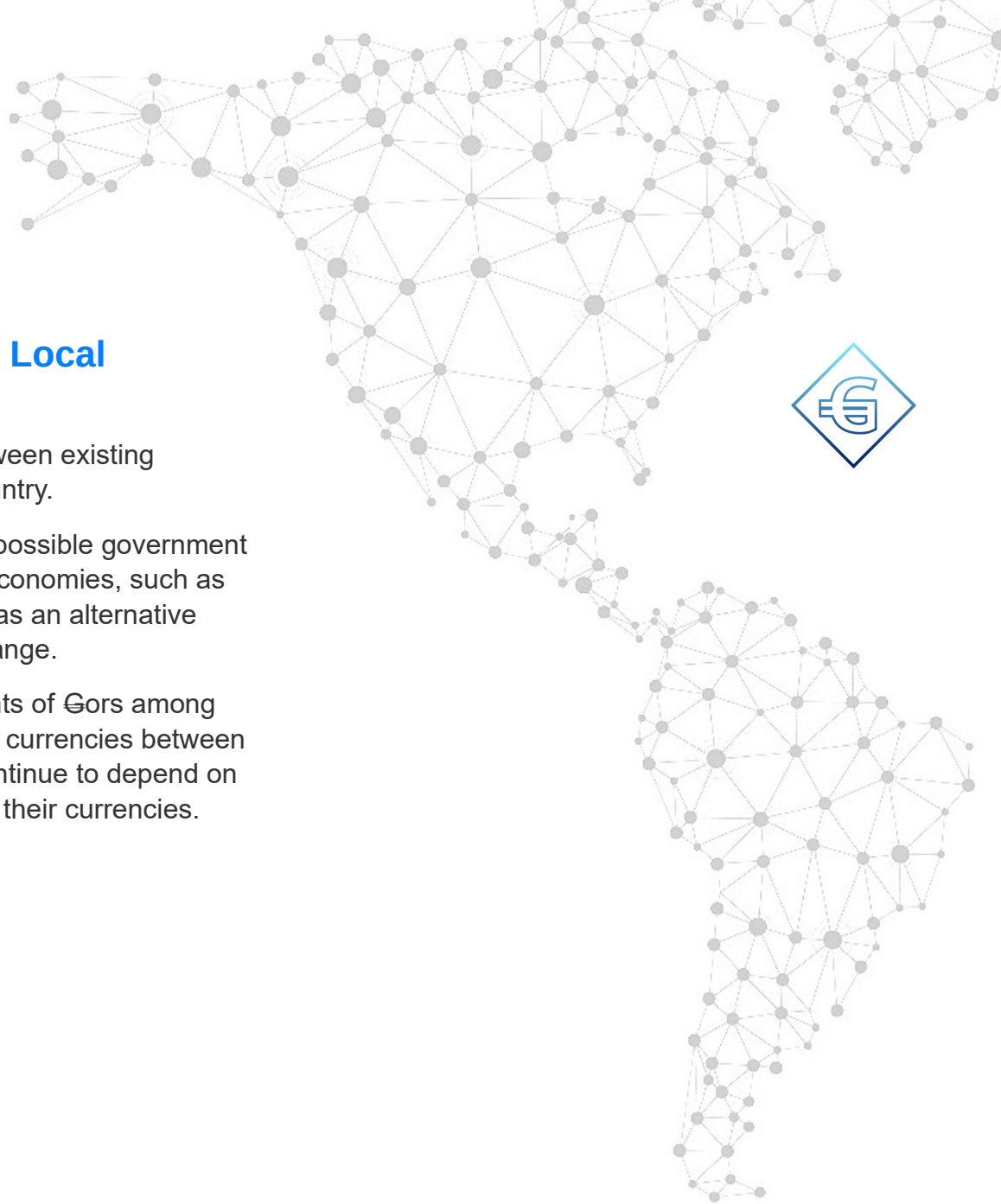
Such cases are also avoided by Gorbyte’s no-reward design.

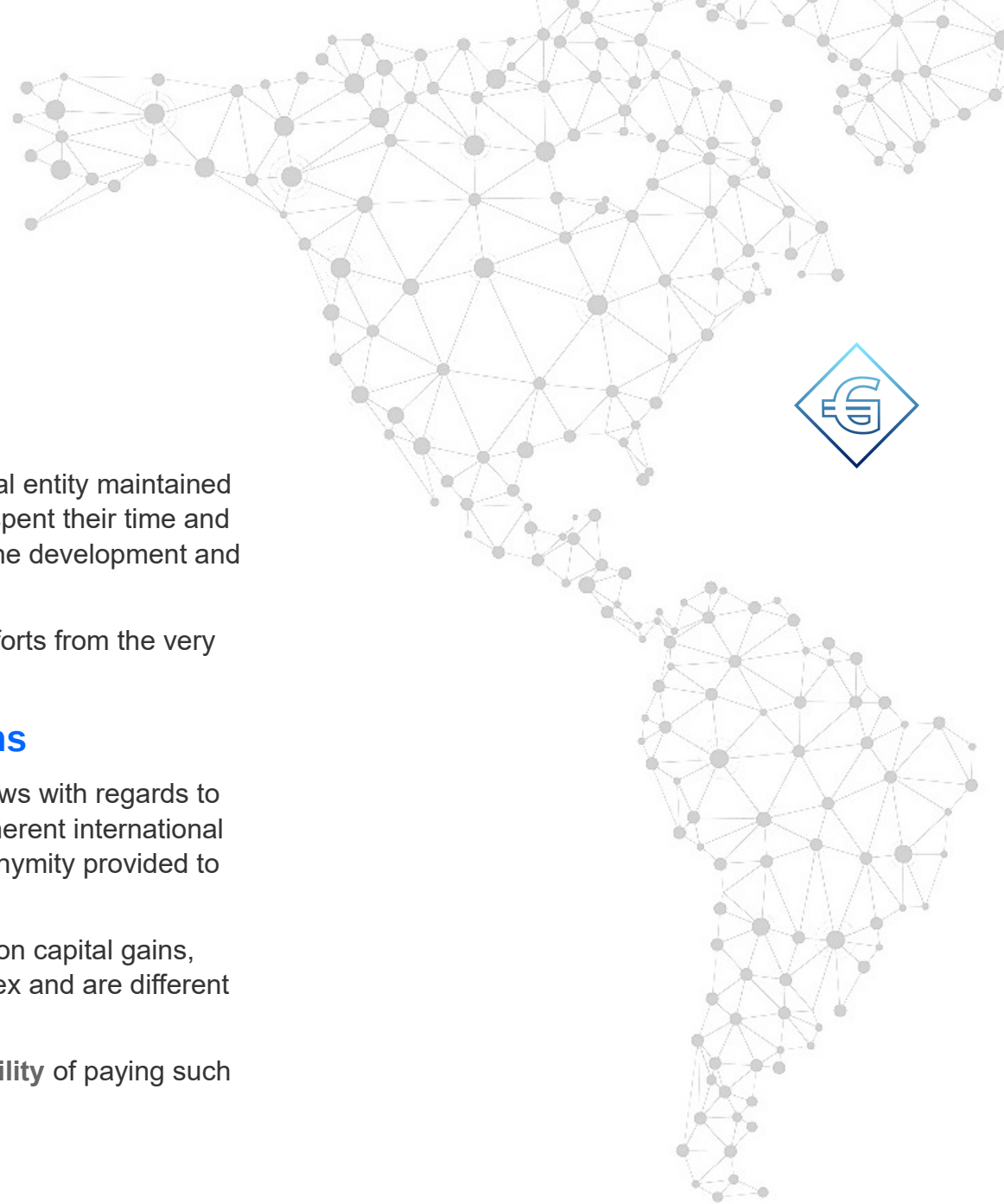
2.9 Effect of the Gorbyte Currency on Local Economies

Having one more currency as a means of exchange between existing currencies has initially no effect on the economy of a country.

Apart from those cases where Gors are used to bypass possible government restrictions in currency exchanges (e.g. in most closed economies, such as Cuba, North Korea, Venezuela, etc.), Gors can be used as an alternative means of exchange, but are not the only means of exchange.

Thus, in general, the acquisition and sale of large amounts of Gors among different countries will not affect the exchange rate of fiat currencies between these countries. Their currencies' exchange rates will continue to depend on the usual economic factors affecting the relative value of their currencies.





3 Other Regulatory Issues

3.1 Foundation Rewards

The *Gorbyte Foundation* is an independent international entity maintained by the group of founders, advisors and developers that spent their time and have demonstrated the skills and willingness to further the development and success of the Gorbyte network.

The Foundation may reward such technical individual efforts from the very beginning using well publicized monetary Rewards.

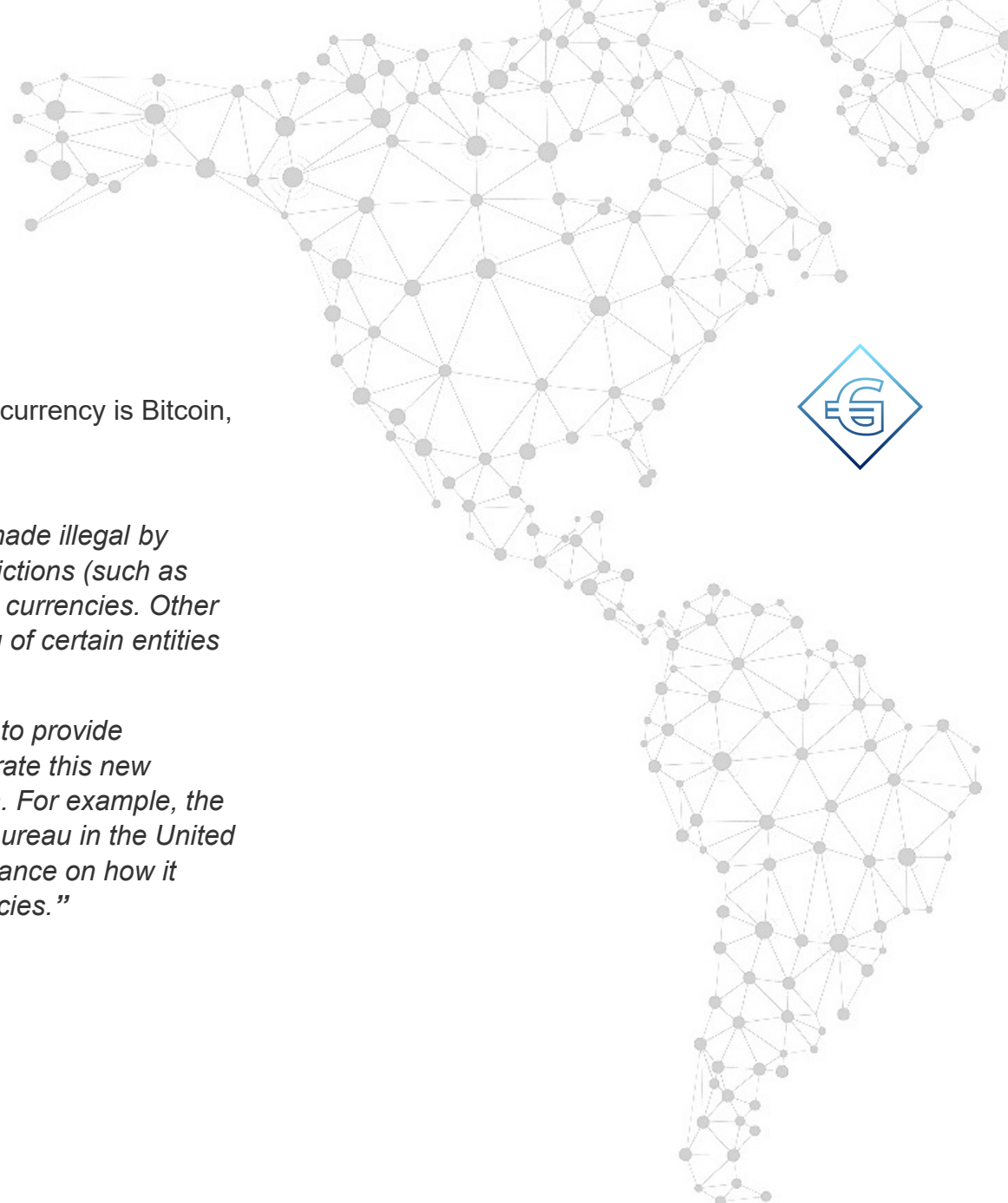
3.2 Local Government Tax Regulations

Gorbyte's users are instructed to follow their country's laws with regards to tax collection and payment. However, because of the inherent international distribution of Gorbyte services, and because of the anonymity provided to users, tax information is difficult to gather.

Whether taxes on sales, on value added, on income, or on capital gains, taxation laws, rules and regulations are generally complex and are different in various parts of the world⁵.

The exact **interpretation** of tax laws and the **responsibility** of paying such taxes is entrusted to each user.

The blockchain is, by design, an open ledger.



3.3 Is it legal?

The only major reference to a similar established crypto-currency is Bitcoin, which has been in operation for about eight years.

This is their answer to the question:

“To the best of our knowledge, Bitcoin has not been made illegal by legislation in most jurisdictions. However, some jurisdictions (such as Argentina and Russia) severely restrict or ban foreign currencies. Other jurisdictions (such as Thailand) may limit the licensing of certain entities such as Bitcoin exchanges.”

Regulators from various jurisdictions are taking steps to provide individuals and businesses with rules on how to integrate this new technology with the formal, regulated financial system. For example, the Financial Crimes Enforcement Network (FinCEN), a bureau in the United States Treasury Department, issued non-binding guidance on how it characterizes certain activities involving virtual currencies.”



3.4 Do early adopters profit more than late users?

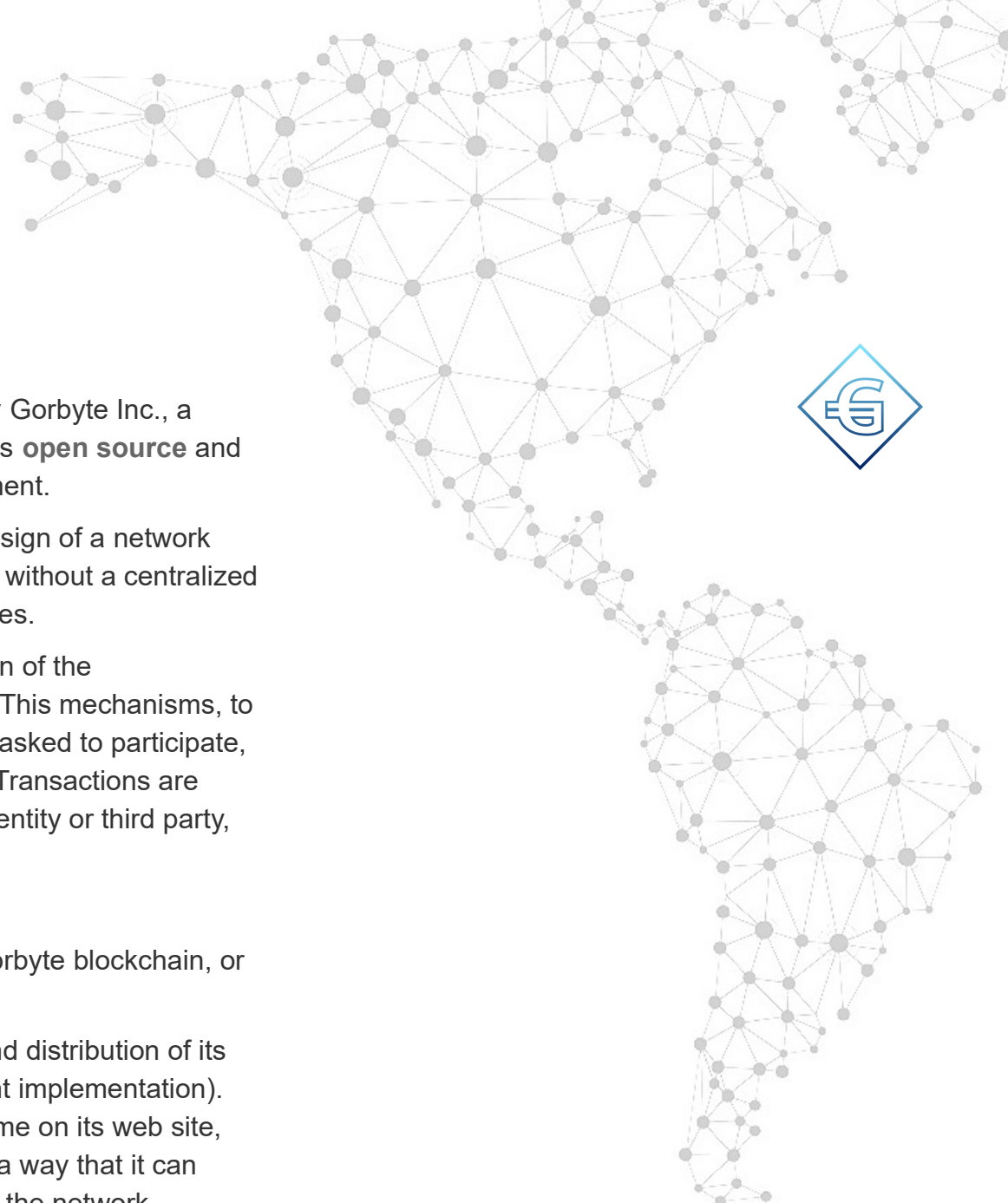
The first group of people to benefit from the adoption and popularity of Gorbyte will be the people who invented the new concept of a public, unpermissioned network offering free financial transaction services, and that spent years of effort designing the network, its protocols and mechanisms.

The second group of people to benefit from Gorbyte's adoption and popularity are those who responded to the Gorbyte Foundation crowd funding initiative, and contributed to support the project, including the capital required for hiring the programmers to develop the initial version of Gorbyte.

The third group of people to benefit from Gorbyte will be the people who understood its potential, assumed the risks, and contributed financially to Gorbyte's early stages of deployment.

In the longer term, other groups of people will benefit from Gorbyte including the developers who join the team and help develop and maintain the network, and those who design and develop future ODPP Applications based on Gorbyte. These may among those selected by the Gorbyte Foundation for Rewards freely granted from time to time.

Finally, society at large will benefit from Gorbyte services available to all, all over the world.



3.5 Ownership and License

The Gorbyte GCC software, will initially be developed by Gorbyte Inc., a Canadian corporation. It will be released for public use as **open source** and will be freely distributed under a limited licensing agreement.

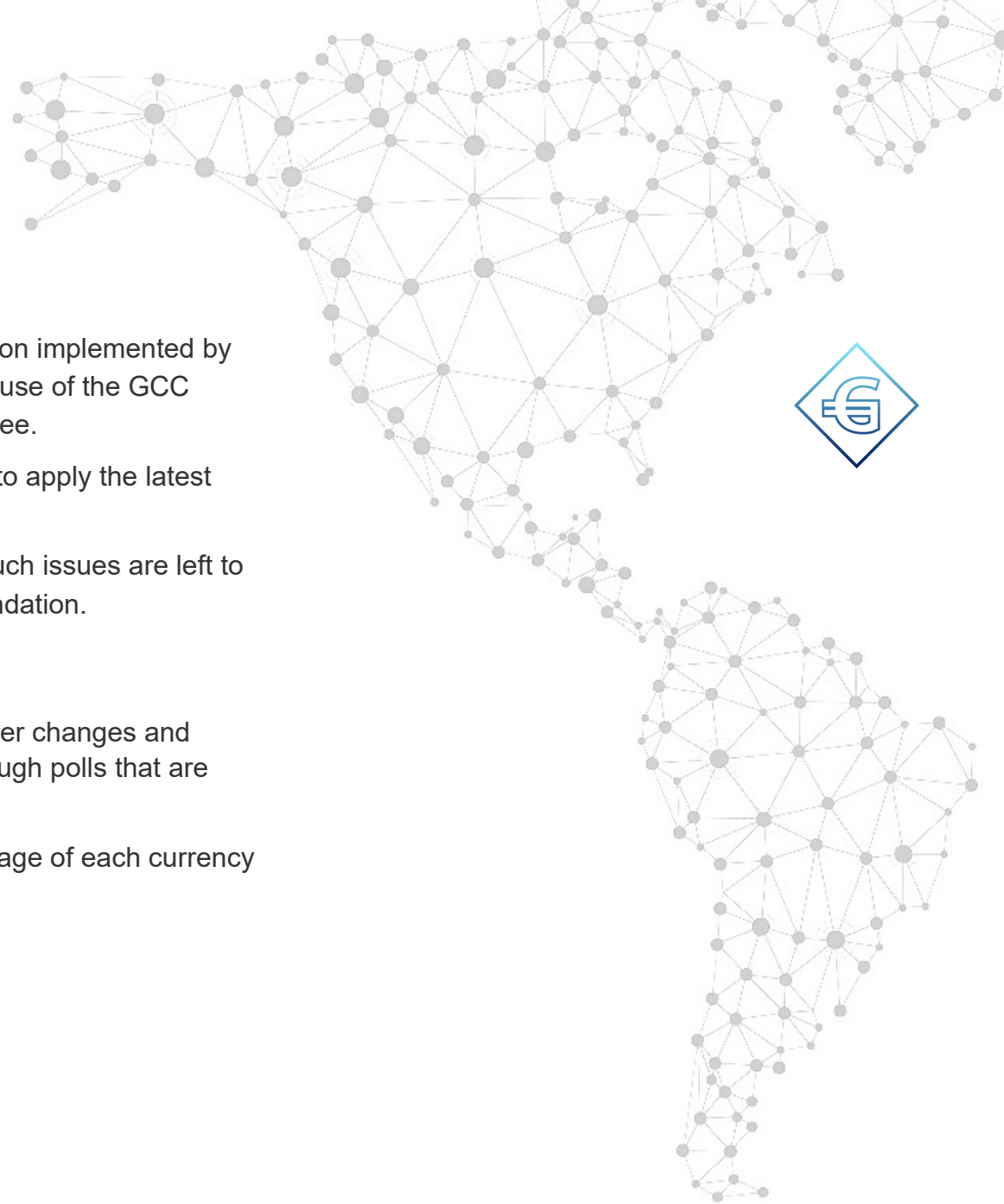
The philosophy of the Gorbyte project has led to the design of a network that is public, distributed, without centralized control and without a centralized entity or entities authorizing transactions or ledger updates.

Part of Gorbyte's distribution philosophy is the distribution of the responsibility of preventing the proliferation of identities. This mechanism, to which CAs, manufacturers and payment companies are asked to participate, has no involvement in the authorization of transactions. Transactions are visible to all, but are not authorized or controlled by any entity or third party, centralized or not.

The Gorbyte crypto-network is unpermissioned.

No organization or authority can change or revert the Gorbyte blockchain, or stop the Gorbyte engine.

Gorbyte Inc. will only maintain the rights of ownership and distribution of its GCC core software (i.e.: the open source reference client implementation). Gorbyte Inc. reserves the right to publish, from time to time on its web site, new downloadable versions of its GCC core software in a way that it can become a new working version used for the operation of the network.



The Gorbyte network is defined by the rules of cooperation implemented by the GCC client software used between peer nodes. The use of the GCC software is completely voluntary. Its basic services are free.

To maintain the integrity of the network, nodes will want to apply the latest published software updates in a timely fashion.

Gorbyte Inc. will not participate in governance issues. Such issues are left to individuals and may be coordinated by the Gorbyte Foundation.

3.5.1 Integrated Governance decisions

The Gorbyte network handles version changes, parameter changes and other possible cooperative or governance decisions through polls that are integrated with the operation of the crypto-network.

These polls are weighted according to the stake percentage of each currency owner who responds to the poll.



Notes

- [1] E.g., ZCASH, MONERO.
- [2] “A startup that helps police track criminals using bitcoin just raised \$5 million”.
At: <http://www.businessinsider.com/bitcoin-tracking-company-elliptic-raises-5-million-series-a-2016-3>
- [3] Formed in order to protect the integrity of digital access.
See: <https://www.chainalysis.com/>
- [4] As an example, see: <https://www.cryptocoinsnews.com/former-fed-employee-fined-5000-for-mining-bitcoin-on-federal-reserve-server/>
- [5] For example, on March 21, 2016 the Australian Treasurer Scott Morrison said that the government “won't be taxing digital currencies”, according to the *Australian Financial Review*.