



How Can Gorbyte Make a Difference in the World?

1. The Opportunity

Many people in developing countries, especially in the southern hemisphere, have no internet access. Furthermore, they have less access to banks and/or cannot afford bank fees. They are the “unbanked”. See Sections 4 and 5, below.

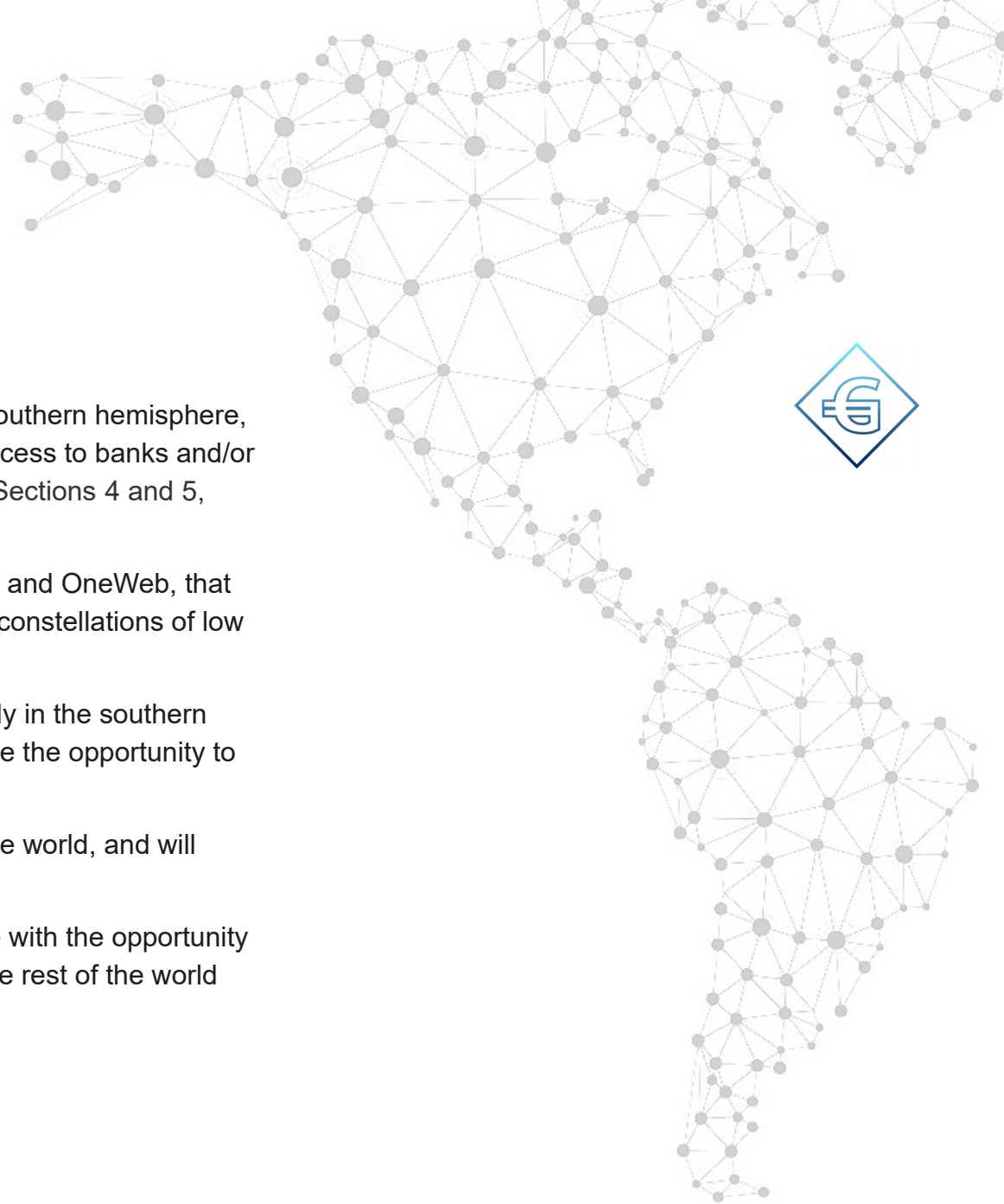
There are several companies, including SpaceX, Boeing and OneWeb, that are planning to provide internet access globally through constellations of low orbiting satellites.

In the next two to three years over a billion people, mostly in the southern hemisphere, will have access to the internet and will have the opportunity to communicate with the rest of the world.

Most of these people will want to trade with the rest of the world, and will need financial transaction services.

The social impact of providing more than a billion people with the opportunity to do commerce, to start businesses and to trade with the rest of the world is extraordinary.

Could we offer them financial services for free?



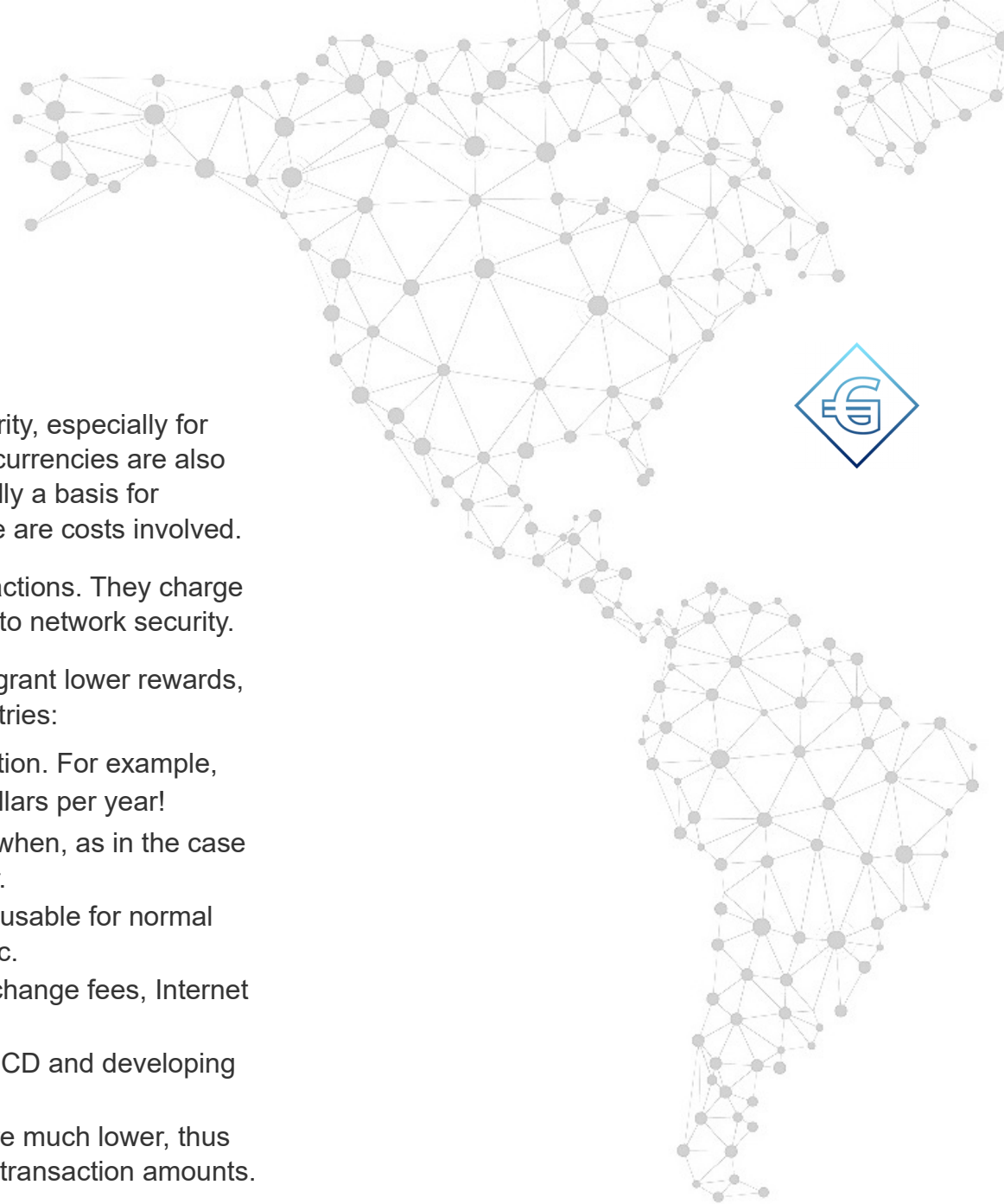
2. The Current Alternatives

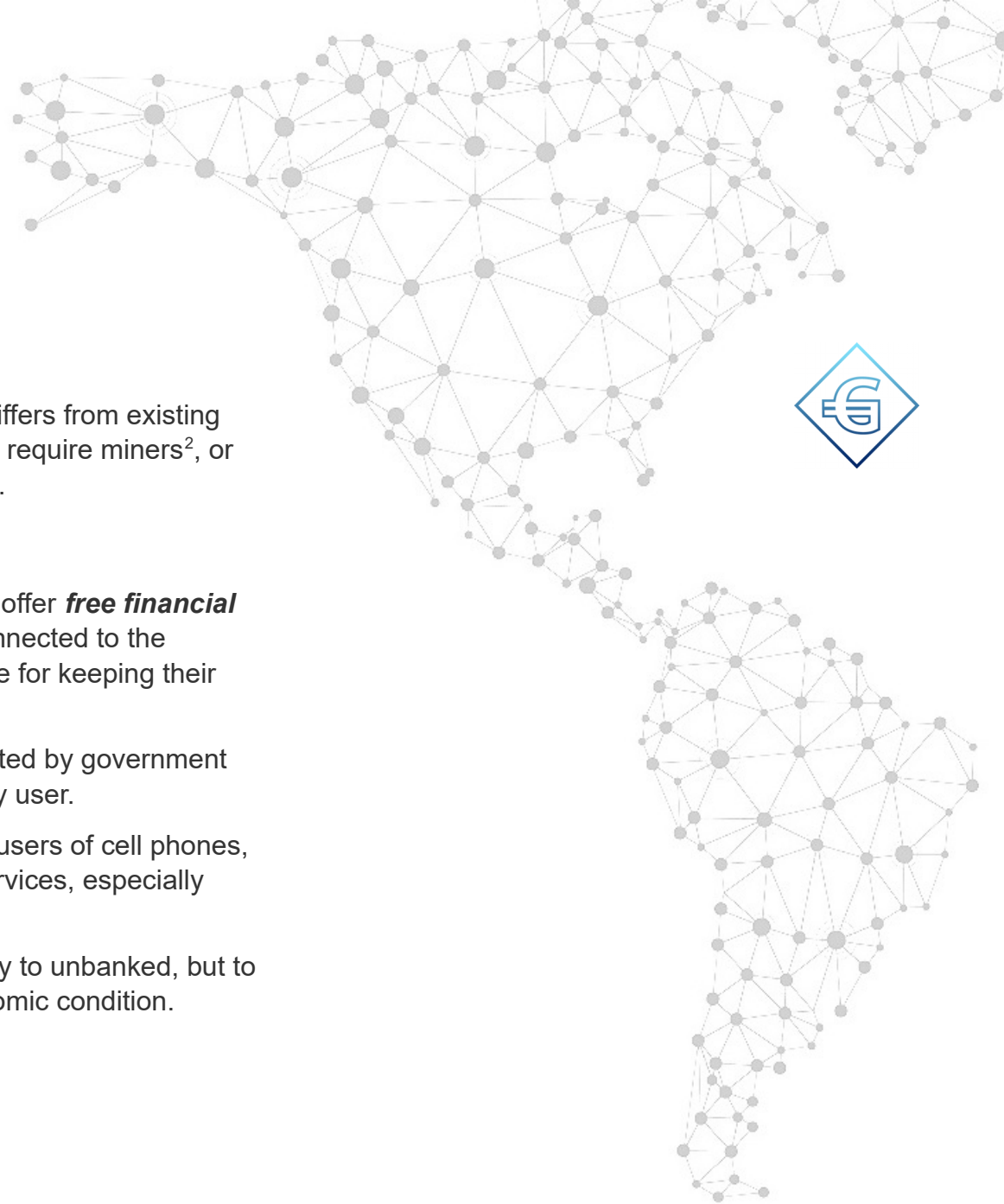
Bitcoin is an alternative currency that has gained popularity, especially for transferring money from person to person. Other digital currencies are also acquiring popularity. While these currencies are potentially a basis for commerce without requiring the services of a bank, there are costs involved.

Crypto-networks use miners or validators to verify transactions. They charge a **fee** per transaction, and gain **rewards** for contributing to network security.

Some crypto-networks may charge lower fees and may grant lower rewards, but they are still impractical for users in developing countries:

- The cost of network operation translates into inflation. For example, for Bitcoin this cost amounts to several billions dollars per year!
- Transaction fees are expected to rise even more when, as in the case of Bitcoin, miners' rewards are going to disappear.
- High volatility of digital currencies makes them unusable for normal commerce, salaries, contracts, loans, invoices, etc.
- The crypto-network fees are in addition to the Exchange fees, Internet access cost and cell contract costs.
- Income and wages are very different between OECD and developing countries¹.
- The average payments in developing countries are much lower, thus fees in average represent a higher percentage of transaction amounts.





3. The Gorbyte Solution

The Gorbyte crypto-network design and business plan differs from existing crypto-networks. Gorbyte's consensus protocol does not require miners², or validators, thus the network operation cost drops to zero.

3.1 No Cost Financial Services

Because Gorbyte has no cost of operation, Gorbyte can offer **free financial services** anywhere in the world. Users with a device connected to the internet will be able to use Gorbyte services, in exchange for keeping their device ON.

The internet and cell costs may in some cases be mitigated by government programs, but generally these costs are borne directly by user.

Many people in developing countries are already heavy users of cell phones, as these represent the only means to use some local services, especially payment services (See section 5).

Global financial services will be readily available, not only to unbanked, but to all people around the world, independently of their economic condition.

3.2 Savings, Interests and Dividends

Gorbyte services will also include a no-cost, interest-bearing, savings account.

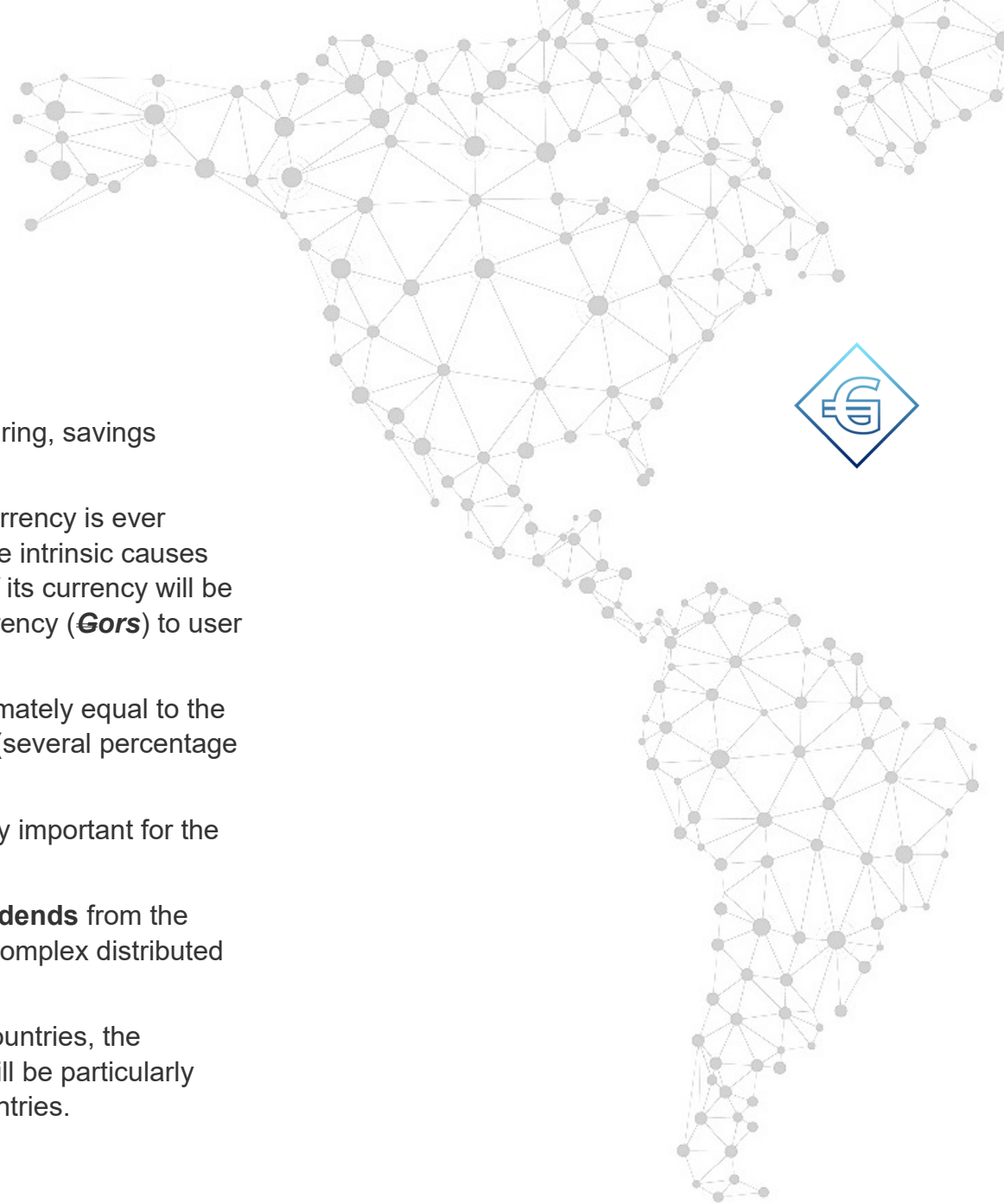
Gorbyte has zero operational costs and no new basic currency is ever created. For these reasons, Gorbyte does not experience intrinsic causes of inflation. Thus, the pressure towards a higher value of its currency will be counteracted with **interest**, paid directly in re-based currency (**Gors**) to user accounts, in proportion to their holdings.

The yearly interest paid to user accounts will be approximately equal to the inflation experienced by other fiat and digital currencies (several percentage points per year).

Having an interest-bearing savings account is particularly important for the unbanked.

In the future, all Gorbyte users will also benefit from **dividends** from the network profits generated through the fees charged for complex distributed applications.

While fees will be paid by companies mostly in OECD countries, the dividends are distributed to all users. These dividends will be particularly welcome by lower income people and in developing countries.



3.3 Free Devices

Gorbyte's blockchain-registered devices, including the BriDGe (**BRDG**), are tamper-proof and include a hardware wallet. They can be used for communication and with blockchain applications. Such devices, in addition to providing free financial services, will provide users with a unique identification.

The Gorbyte Foundation, in cooperation with Gorbyte Inc. and with the help of the World Bank, governments and NGO's, intends to provide as many free **BRDG** wearable devices as possible, to individual people in developing countries.

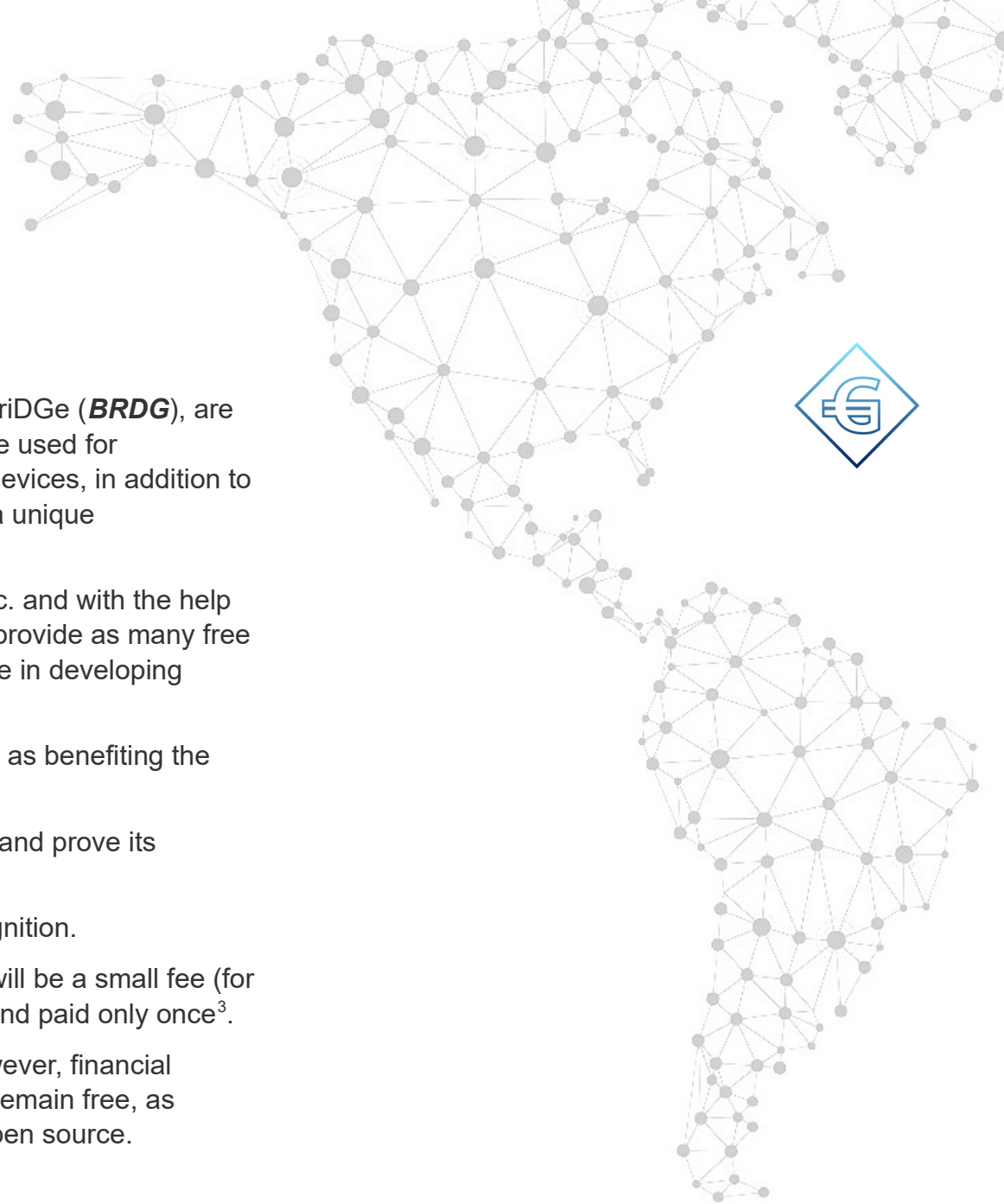
This marketing strategy will benefit Gorbyte Inc. as well as benefiting the users:

Gorbyte Inc. will be able to develop a large test network and prove its security and functionality.

Gorbyte Inc will also benefit from the **BRDG** brand recognition.

When the device is shipped by the manufacturer, there will be a small fee (for security and verification purposes) charged to the user and paid only once³.

Gorbyte devices will also be available for purchase. However, financial transactions will be free for all users and guaranteed to remain free, as Gorbyte's crypto-network software will be released as open source.





4. Who the Unbanked Are

“Globally, 2 billion adults remain unbanked. South Asia and East Asia and the Pacific together account for more than half the world’s unbanked adults. South Asia, home to about 625 million adults without an account, has about 31 percent of the global total; East Asia and the Pacific, with 490 million unbanked adults, accounts for about 24 percent”
(See diagrams 1 and 2).

At the same time, the availability of mobile devices and access to direct payment services is relatively high (see section 5). Continuing, from the same source:

“India is home to 21 percent of the world’s unbanked adults and about two-thirds of South Asia’s.

Women make up 55 percent of the world’s unbanked adults: 1.1 billion. And adults in the poorest 40 percent of households within economies make up half: 1 billion.

These shares vary little across developing regions.”

“...almost 40 percent of adults around the world remain unbanked.”

The reasons may be various: distance from cities, high costs of traditional banking services, less economic activity in the region, less trust in institutions and government, etc.

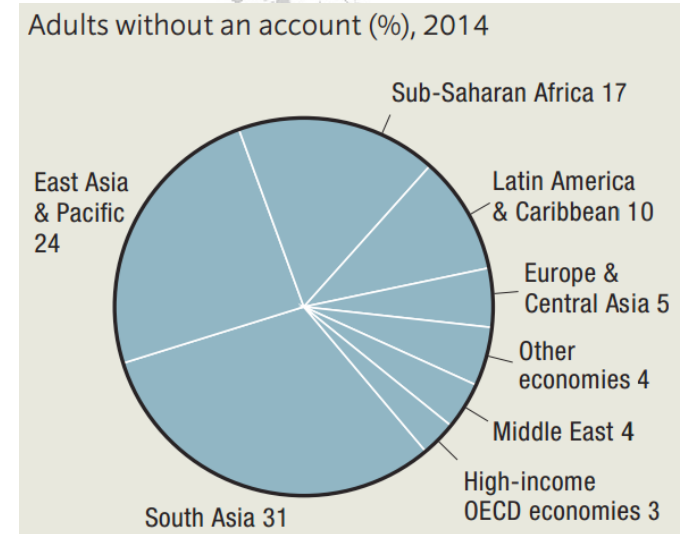
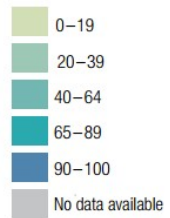


Diagram 1: The world’s unbanked adults by region





MAP 1.1
**Account penetration
around the world**
Adults with an account (%), 2014



Source: Global Findex database.
IBRD 41559 | APRIL 2015

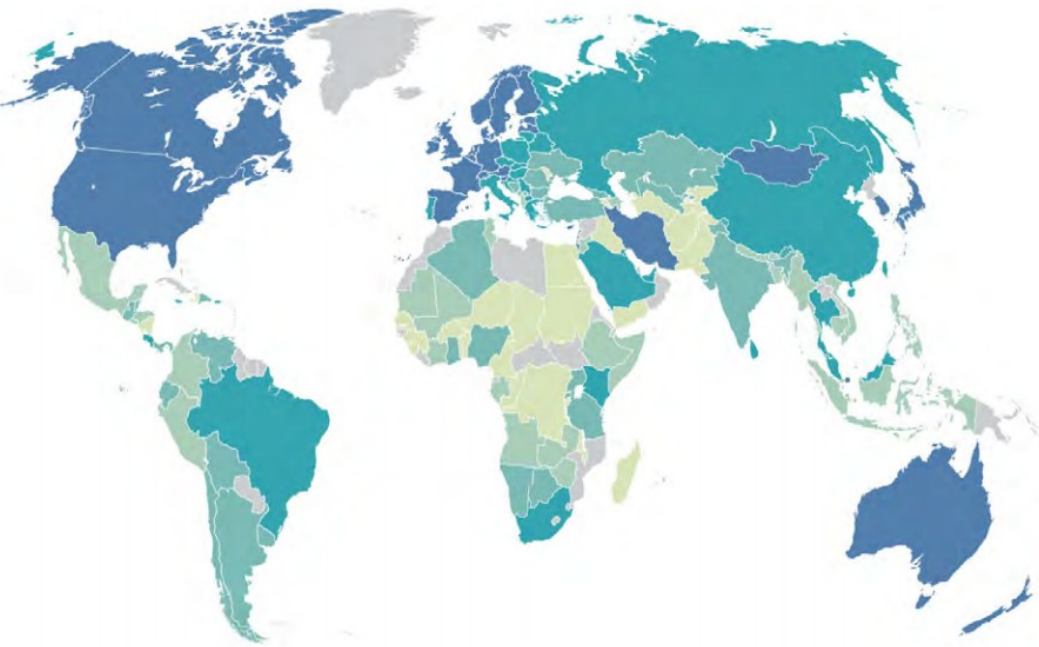


Diagram 2: Where are the unbanked?



5. How Payments Are Made

The people of these countries make payments for a variety of reasons, but without bank accounts their options are limited. For example, the data available from the World Bank related to agricultural payments shows that most payments are made in cash:

“About one in four adults in developing economies reported receiving payments for the sale of their family’s agricultural products in the past 12 months (See diagram 3). Across all developing regions, these payments are received almost exclusively in cash.”

While the cost of face-to-face cash transactions is minimal, it implies some risks. In addition, the cost of storing the cash in a bank and the cost of transferring cash through a bank may still be expensive.

However, digital payments are becoming more popular in Sub-Saharan Africa:

“There, 5 percent of adults—or 13 percent of recipients—reported receiving these payments directly into an account, mostly into a mobile money account.”

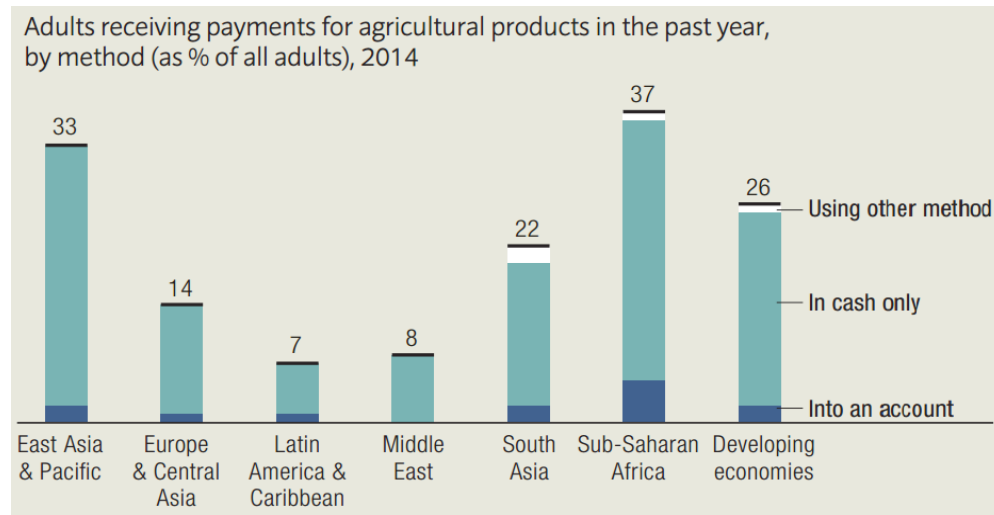


Diagram 3: How agricultural payments are made



Digital payments for the sale of agricultural products have particularly taken off in Kenya, Tanzania, and Uganda—three of the six countries where more than half of adults reported receiving agricultural payments.

In Kenya 20 percent of adults—or 37 percent of recipients—receive the payments into an account, again mostly into a mobile money account.

In the other two countries this is the case for about 10 percent of adults—or for 24 percent of recipients in Tanzania and 15 percent in Uganda.”

The World Bank document shows similar charts for utility payments, school fee payments, wage payments and other forms of payment.

6. Conclusion

The use of mobile, digital technology has spread across the world, almost independently from people’s income. However, the use of financial transaction services is still expensive and difficult for many.

The advent of widespread internet access throughout the world, creates the opportunity for over a Billion people to trade with the rest of the world.

The Gorbyte business model of **free financial transactions**, a **no-cost savings account** and **unique identification** for all, will create more economic opportunities around the world!



Notes

- ¹ See, for example: https://euro.indiana.edu/doc/archive/past-events/wcms_324678.pdf
- ² Bitcoin, Ethereum and other unpermissioned networks require the use of miners. Several token coin applications, for example those created through smart contracts on Ethereum, have the goal of facilitating payments worldwide. However, they are still subject to their support network's costs.
- ³ See: "The BRUD Architecture" document.
- ⁴ This, and the following quotes in italics, are from the World Bank document: <http://documents.worldbank.org/curated/en/187761468179367706/pdf/WPS7255.pdf>