

# KARBON COINS TURNING CO2 INTO COINS

**WHITE PAPER 1.0** 

# Content

CONTENT	2
01 INTRODUCTION	3
02 THE KARBON COIN	3
What is Karbon coin?	
03 HOW ARE SUSTAINABLE ACTIONS / ECO-FRIENDLY PURCHASES VERIFIED?	4
PROOF OF PURCHASE AND PROOF OF OWNERSHIP:  WHAT CAN I SPEND KARBON COINS ON?  HOW ELSE CAN I GET KARBONCOINS?  HOW MANY KARBONCOINS ARE THERE?	5 5
A SUSTAINABLE MARKETPLACE	6
WHAT DOES THIS NEW SUSTAINABLE MARKETPLACE LOOK LIKE?  WHAT ARE THE USE CASES?  WHAT ARE THE ADVANTAGES OF BEING PART OF THE MARKETPLACE?	6
A DEMOCRATIC COMMUNITY	7
HOW WILL THE KARBONCOIN BE A SUSTAINABLE BLOCKCHAIN?  WHAT ARE KARBON NODES?  WHAT IS A DECENTRALIZED AUTONOMOUS ORGANIZATION?  WHO CAN VOTE?	7 7
ROADMAP	8
THE TEAM	9

#### 01 Introduction

hen you buy a cheap electrical appliance, you pay less money. When you buy a low-carbon footprint appliance, you're emitting less CO2, but you will be paying more money for it. People aren't motivated enough to invest in energy-saving appliances, nor to take part in eco-friendly actions. Karbon coin aims to fix this. It is a new cryptocurrency that positively rewards people with Karbon coins for their sustainable actions. It is also the first cryptocurrency which's stocks are measured in negative CO2 emission; every Karbon coin approves of an amount of CO2 that a consumer didn't emit. As more CO2 emission is spared, more Karbon coins become available. Sustainable actions are verified by the crowd, by the proof-of-purchase and proof-of-sales systems we designed, and by certified vendors.

#### 02 The Karbon Coin

#### What is Karbon coin?

Karbon coin is a cryptocurrency you can earn by taking the incentive of going green. We aim to reward anyone, anywhere in the world who's favoring green alternatives. Switching to a green energy provider, reserving a green airplane ticket, buying low-carbon emission appliances, investing in a solar car, or any other kind of sustainable economic action can earn you Karbon coins which you can spend in a sustainable marketplace to buy ecological experiences, services and goods. Karbon coins like any cryptocurrency are stored in e- wallets accessible through a web browser and mobile app. An e-wallet can do much more than a physical wallet as it can receive Karbon coins, store them and send them to other users. The application can also display information about what sustainable actions can be carried out and where the currency can be spent, the live price of the cryptocurrency as well as a trading platform to make it easier for anyone to buy or sell Karbon coins.

## What about the action that can earn you coins?

There will be a variety of sustainable actions that people can receive Karboncoins for carrying out. As time goes

on, the community, that is those who use the currency in accordance with the karboncoin company, can add more actions to the system to expand the pool of sustainable actions possible, any action can be rewarded as long as the action is financial and objectively verifiable. Of course, not all sustainable actions have the same impact. This means that different actions will have different amounts of Karboncoins to reward, depending on how much CO2 is being saved.

Appliance being bought	CO₂ emission VS Standard	Carbon Saving Indicator (CSI)	Amount of Karbon Coin Rewarded
Washing Machine (LG A+++)	24.79 kgCO <sub>2</sub> year <b>VS</b> 440 kgCO <sub>2</sub> year	17.74909238	3.5
Fridge (Liebherr A+++)	27.14 kgCO <sub>2</sub> year <b>VS</b> 250 kgCO <sub>2</sub> year	9.211495947	1.8
Desktop (Dell Opti Plex)	15.54 kgCO <sub>2</sub> year <b>VS</b> 95 kgCO <sub>2</sub> year	6.113256113	1.17
Flight Ticket (Delta Airline)	115 g per pass/km <b>VS</b> 220g per pass/km	1.913043486	0.3

# 03 How are sustainable actions / eco-friendly purchases verified?

#### Proof of purchase and proof of ownership:

The purpose behind this feed is to assess to integrity of the wide range of different news that are posted. In this feed, every post that gets successfully shared on the platform will appear. From the most truthful and well sourced information to the most outrageous fake news.

- Online from our store: When you buy an item from our website, your purchase will automatically be recorded and sent to the blockchain, you just proved that you purchased that specific item, that is called a "proof-of-purchase".
- Offline or from other stores: When you get your item, there will be a scratchable QR code on it, you'll have to scan it using your phone camera and Karboncoin's mobile application to verify that you own that item, that is called "proof-of-ownership".

The proof-of-purchase and proof-of-ownership systems work using Karboncoin's blockchain, whereas the minters will be both the store owner and the client, as well as many other trusted partners who will be rewarded a small amount of Karboncoins for each verification.

For more technical information, please read the **Technical Paper**.

#### What can I spend Karbon coins on ?

The aim is to both earn in a green way and also spend in a green way. Karboncoins can be redeemed services, goods, but also experiences.

Experience/Service/Product	Price in KARB
Reusable Bag	0.02
Electric Bike	15.8
Glass water bottle	0.04
Hiking pass to Jabal Moussa	2.5

In addition, Karboncoin, as a cryptocurrency is an asset that can be exchanged freely and without any fee, that will allow people to send and receive karboncoins in exchange of services, goods, but also as gift, and will most importantly allow businesses to accept karbon Coin that they will be able to exchange back for fiat money via the karboncoin app or online via cryptocurrency trading platforms.

#### How else can I get Karboncoins?

We have already talked about earning Karboncoins for investing in green purchases. But there are other ways in which you can get Karboncoins, each a sustainable action in its own right.

- Verifying
   As a store owner, a loyal Karboncoin user, or one of our partners, you can earn Karboncoins by verifying Karboncoins transaction.
- Vending Certified vendors that sell sustainable products or accept Karboncoins as a way of payment will get a small bonus as being part of the marketplace.

## How many Karboncoins are there?

Many cryptocurrencies have a total supply which means the total amount of that currency that will ever be in circulation. This is written in the code and can not be changed at a later date. For example Bitcoin has a total supply of 21 millions which was set by its creator(s) seemingly at random.

Giving a cryptocurrency a total supply creates a finite and scarce digital resource, but what if we could tie the total supply to the amount of CO2 emitted per capita? The average human produces around 8 tones of CO2 per year, we could stop the issuance of Karboncoins when that average arrives at 500 kg per year of which 331 kg is the amount of CO2 a human produces by breathing per year.

# 04 A Sustainable Marketplace

#### What does this new sustainable marketplace look like?

We envision a new sustainable economy and marketplace in which places where Karboncoins can be earned and spent are interconnected. The marketplace is flexible and can include places like schools, universities, restaurants, shopping centers, recycling centers, online shops, and so on.

- Organizations can encourage sustainable actions by purchasing Karboncoins with fiat money or by buying eco-friendly appliances for their offices while receiving
- Karboncoins. Karboncoins are then released using the Proof-Of-Purchase and Proof-Of-Ownership systems.
- The organization uses these Karboncoins to engage people in a short or longterm campaign to carry out sustainable actions and eco-purchases.
- People who earn Karboncoins can buy sustainable experiences, services and products from any vendors in the marketplace.
- Karboncoins can be spent by vendors on incentivizing new sustainable actions.
   Can be traded with other vendors or can be used to purchase priority advertising and communication space with the Karboncoin e-wallet.

#### What are the use cases?

- Universities
   University campuses are full of youngsters who are ready to live the change they want to see in the world. The Karboncoin can be a valuable tool to teach students how economics works as well as diving deeper into innovation within sustainability.
- Retail Spaces Sometimes the more sustainable purchase is the more expensive one. Well why not promote the green choice and reward sustainable purchases with some Karboncoins? This can be a new way to communicate eco-brands and help foster loyalty and a better connection to the customer. Retailers can also accept Karboncoins as payment for their products. This will also help customers work out which brands and products are the best choice for the environment.
- Online Platforms There are many sustainable apps, startups and platforms already out there. The Karboncoin can be easily integrated into these so that you can spend coins on renting an electric bike. The more places Karboncoins can be earned and spent, the more valuable it will become.
- Offices A lot of time is spent in offices, which is a great space to change daily habits. Managers and employees can challenge each other to become more sustainable and be rewarded with Karboncoins when they succeed. There are many office actions that can work: incentivize green transport to and from the office, employees can participate in workshops or eat meat-free lunches. Different departments can even form teams and challenge each other to be the most sustainable in the office.

#### What are the advantages of being part of the marketplace?

- Store Owners Store owners who wish to implement the Karboncoin system into their businesses will be giving their customers free karboncoins on every green purchase, which represent a significant added-value to their stores and can lead to an increase of the businesses' cash flow.
- Consumers
   Consumers being part of the Karboncoin marketplace will not only be benefiting by getting Karboncoins which is a currency by itself, but will also feel the satisfaction of helping the environment.

# 05 A Democratic Community

#### How will the Karboncoin be a sustainable blockchain?

Some blockchains, like Bitcoin, use a Proof of Work consensus algorithm to secure their networks. Though this method is robust, as time has gone on it is clear to see that the energy usage of such a system is unsustainable. As of writing some reports estimate that Bitcoin mining is using as much energy as the country of Denmark. To avoid heavy use of energy the Karboncoin will use a Proof of Authority consensus model in addition to its Proof-Of-Purchase and Proof-Of-Ownership ones that we designed specifically for that matter. This will also allow for Karboncoin nodes to be present so as to decentralize governance.

#### What are Karbon nodes?

Nodes are a way to participate in the network. Eco-store owner, NGOs, loyal Karboncoin users, and the Karboncoin foundation are the only entities capable of running a node which essentially means that each one of these entities is running the entire Karboncoin ledger on their servers.

Nodes are not required to earn and spend Karboncoins but are needed to build a decentralized autonomous organization.

#### What is a decentralized autonomous organization?

The Karboncoin network will not be controlled by one single party but by many trusted entities. Eco-store owners, NGOs, and loyal Karboncoin users running a node will be able to participate. This will work by utilizing the blockchain to create a Decentralized Autonomous organization (DAO) whereby holders of a specific amount of karboncoins will also have a vote in the development and direction of the platform and currency. The DAO is built upon a smart contract. So instead of a single human or organization having the final decision, it is up to a circle made of NGOs, trusted Karboncoin users, and big organizations (Samsung, Apple, Huawei,etc...) to vote and the outcome of this vote automatically triggers the smart contract to carry out the desires of the majority of the voters.

#### Who can vote?

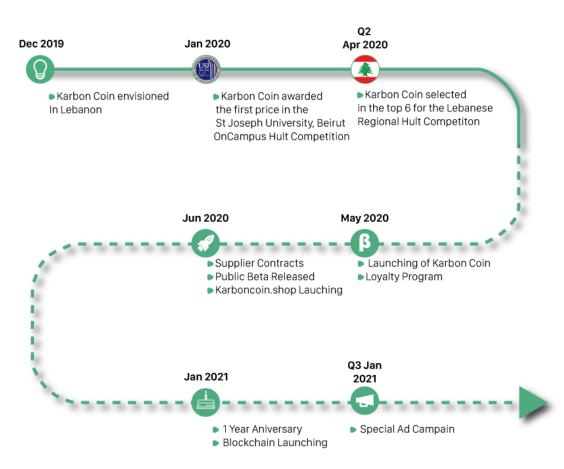
Users with a specific number of karboncoins in their wallet, eco-store owners, NGOs, big organizations as well as the Karboncoin foundation, while running a node, have a voice within the DAO. We want the community who uses this currency to also be a part of its future developments. Letting many stakeholders vote will also ensure that the system remains balanced and fair.

# Roadmap

Karboncoin has been under development since December 2019.

Going forward we have ambitions to take on investment so that we can further build the platform, reach many more and balance economy and ecology.





# The team



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