

WHITE

PAPER

emcil

MOVE YOUR MIND

# OVERVIEW

01

✕ SOCIAL ENVIRONMENT

✕ EMCIL'S PROPOSAL

✕ EXPECTED IMPACT OF OUR SOLUTION



The **effects of climate change**, mainly generated by greenhouse gas emissions, are well-known and are an issue of increasing concern to society.

**Driving vehicles** is one of the major contributors to higher emissions, since it largely uses fossil fuels.

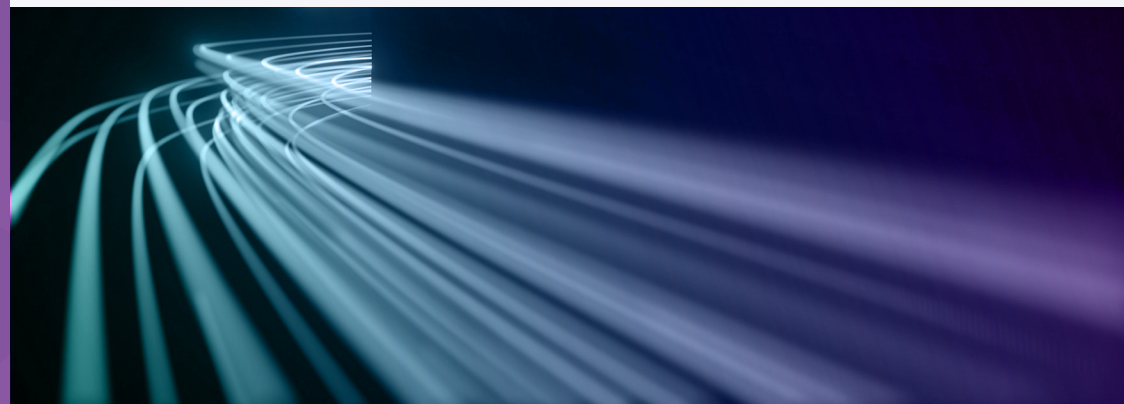
**Fleet electrification** would indeed mitigate that problem. But despite the fact that electric cars were created almost 200 years ago, and that they have been widely marketed for decades, their presence is still small, and combustion engines are still predominant.

And although electric cars and their equivalents in the form of scooters, bicycles and motorcycles are strongly making their way into the vehicle fleet, their number is still far from what would allow us to leave combustion vehicles behind for good.

This is why we need real initiatives that are able to promote **a major shift in mobility** and to effectively encourage the adoption of electric engines as a way to avoid the emission of pollutants.



## SOCIAL ENVIRONMENT



**EMC E-MOBILITY INNOVATION LABS (EMCIL)** is a project created in 2022 with the purpose of promoting the adoption of the electric vehicle at all levels. Our mission is to make electric mobility attractive by offering the User a compensation in cryptocurrencies that matches the cost of each completed ride.

EMCIL is implementing the groundbreaking idea of compensating ecological actions through cryptocurrencies under the concept **"Drive Electric to Earn"**. With our solution, Users will receive a compensation in cryptocurrencies for every ride they complete using their electric vehicle, including cars, bicycles, motorcycles, buses, scooters and even trucks.

In order to enable this, we will make use of the NFT technology embedded to our own application, and of our proprietary compensation token, called **EVT** (Electric Vehicle Token), whose value will be determined by the actual price of energy, both the BRENT barrel and the electricity market.

Today, we have reached a point where using electric vehicles has become more profitable than using combustion engine vehicles, from an economical perspective. However, given the current instability of the geopolitical and economic scenario, this could change and end up discouraging electric mobility. Being aware of those risks, EMCIL **monitors** in real-time the costs of raw materials for both polluting and clean sources of energy, in order to ensure that the compensation derived from the use of electric vehicles ALWAYS remains higher than the perceived advantages of using combustion engines.

Also, as a means to ensure a responsible use, the **algorithm developed** by EMCIL will set limits on the rewards earned, so they are kept below the actual cost of the energy consumed. This way we'll make sure that each instance of energy consumption is linked to a necessary ride, not to the compensation itself. All of this while keeping in sight our core aim, which is to effectively encourage real actions toward environmental sustainability.

## EMCIL'S PROPOSAL





The reasons that slow down the market penetration of electric vehicles are diverse. First, Users are wary of the **complex world of batteries** and do not trust that the battery life stated by manufacturers is real. Secondly, and despite government aid programs to incentivate the purchase of electric cars, the cost of electric vehicles is often **too expensive** for the average User. And this is something not exclusive of electric cars, but also applies to bicycles and smaller vehicles. Finally, the growing and increasingly **unstable** prices of the electricity market cause consumer distrust when Users need to buy a new car.

Our solution addresses this problem from several fronts simultaneously: On the one side, Users will receive a **compensation for every completed ride**, which will greatly reduce the cost of using their electric vehicle and increase the pay-off of their investment. On the other side, as their compensation will be linked to the actual price of the electricity, Users will be **less vulnerable to the volatility of that market**.

Finally, our compensation system will also reward those manufacturers that make their batteries available for EMCIL to test them and release results as public information, generating an **objective and truthful database** that will help Users choose their electric vehicles with confidence.

Ultimately, the expected impact of EMCIL's solution will be the **reduction of greenhouse gases by effectively spreading electric mobility** at a global scale.



## EXPECTED IMPACT OF OUR SOLUTION



# INSTRUMENTS

## 02



To be part of the EMCIL solution, it is an essential condition to be the holder of **an electric vehicle**.

User will need to: download the **EMCIL app** <sup>1</sup>; purchase a **NFT** <sup>2</sup>; register his/her vehicle with EMCIL <sup>3</sup>; check and confirm that their associated NFT is correct <sup>4</sup>; and generate a verification code for his/her vehicle. <sup>5</sup>

The rewards earned will continue to accrue, provided the User notifies in advance via the app that he/she is about to start a ride, AND has the GPS or GLONASS apps enabled in his/her device. At the end of each ride, the application will calculate the distance covered and will compensate the User based on such distance, the NFT associated with his/her vehicle, and other factors (see the details in the Compensation Formula section below).

# TOKENOMICS

03



**EMC (E-Mobility Coin)**® is the main token used for this project. It has been developed on the BEP-20 network, the Binance Smart Chain blockchain, and is Web3-based.

The EMC is at the base of this groundbreaking project that rewards Users through cryptocurrencies under the concept “**Drive Electric to Earn**”, by compensating them for moving in a sustainable way.

By acquiring and supporting EMCs, the User will be part of a community that actively promotes **clean mobility**, and will actively be involved in protecting the environment without compromising the future of the planet.



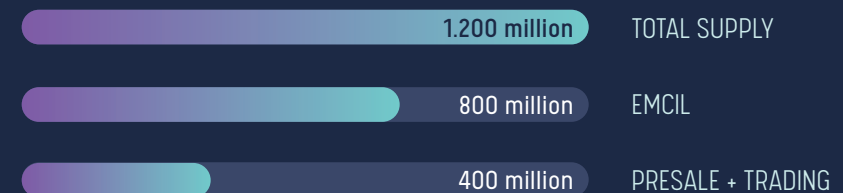
**EVT (Electrical Vehicle Token)**® is the cryptocurrency that will be used to reward Users when driving an electric vehicle.

For this to happen, in addition to holding an electric vehicle (scooter, car, motorcycle, bicycle, truck or bus), they will need to purchase one of our NFTs, and register in the EMCIL app. It will be based on a fast and secure blockchain.

The supply of EVTs will be unlimited, and will be mined in accordance with the sustainable rides completed by registered Users. This fact characterizes the EVT mining as “ecological mining”.

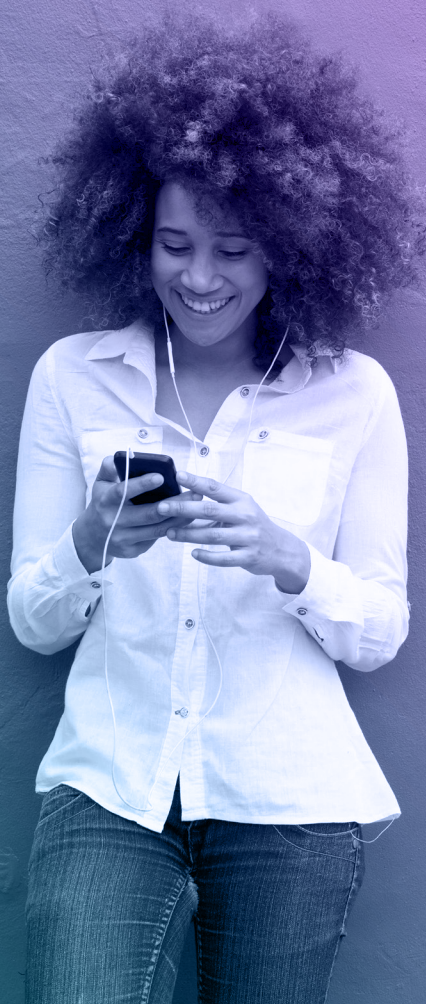


The project will issue 1,200,000,000 EMC tokens, and the price they reach will determine the success of the EMCIL project. The team, partners and investors reserve 800,000,000 EMC tokens, while 400,000,000 are reserved for pre-sale and trading.



The main purpose of our EMC token is to foster electric mobility in order to encourage the ecological transition and reduce the use of fossil fuels. EMCIL grants its rewards under the “**Drive Electric to Earn**” philosophy for Users who have an electric vehicle, and who purchase the appropriate NFTs, which will be associated to their vehicle.

The compensation that they will receive for driving sustainably will take the form of EVT tokens.



**Let's look at an example:** Eva does not have an electric car. But she wants to support the sustainable development objectives, and she decides to choose a green vehicle, even if it has a higher cost than conventional combustion cars. Thanks to EMCIL, Eva will amortize the purchase of her car in a short time. Once she has her electric model, she downloads the EMCIL app and later purchases the NFT corresponding to the characteristics of her vehicle; then, EMCIL sends her an activation code and she becomes a member of our community.

Now, before every ride she takes in her everyday life, Eva will activate her code, and after completing her ride she will be rewarded through our EVT tokens. This way, Eva promotes sustainable mobility and encourages a healthier environment. EMCIL rewards her commitment to the planet.

Thanks to this innovative blockchain technology, NFTs give us the possibility to create a digital economy, challenging the utopia of living in a world, where sustainable mobility contributes to the health of our planet.



## HOW TO USE

⌘ It will be necessary to be an EMC token holder - i.e obtain EMC tokens previously - in order to purchase our NFTs. EMC NFTs will represent the electric mobility vehicle that the user is using in his/her daily life.

⌘ The parity with the NFT/EMC price will be given according to the EMC trading price. Thus, if the price of the EMC coin increases, it will be linked to an algorithm where less EMC coins will be required for the purchase of the NFT. On the contrary, if the EMC price decreases, more EMC coins will be required for the same NFT. In this way, we will be able to maintain a constant and equal NFTs price.

⌘ The rewards earned for green mining will be delivered through our EVT reward token.

⌘ EVT tokens may be exchanged for EMC tokens through our App. EMC tokens will be delivered based on our compensation formula and their trading price, **being subject to possible modifications due to the existence of new variables that may be developed and introduced in the future.**

⌘ EMCIL will destinate 1% of the EMC transaction fees as a reserve to guarantee the best performance for the EVT token.

⌘ If the user wants to exchange EVT for EMC, he/she will make a Swap through the App. Then, EVT tokens will be burnt in order to avoid the increase of EVTs in circulation.



## HOW TO USE INTEROPERABILITY

$$\text{Reward (EVT)} = d * k_u * k_f * k_c * k_2 * c_e$$

The EMCIL User will receive a reward in EVTs for each ride completed with his/her electric vehicle. Since our ultimate purpose is to promote sustainable mobility, when estimating the compensation we will take into account several relevant factors as well as the distance covered. The specific amount of the reward will depend on the following formula factors:

**d: distance in kilometers or miles.** Distance covered by the electric vehicle.

**$k_u$ : use factor.** This factor takes into account the loss of performance of a battery over a time period. Lithium-ion batteries lose efficiency over time, due to the charge and discharge cycles to which they are subjected, and the consumption of the battery at rest. The first battery life stage is considered finished when the battery status of health (SoH) decreases to 80%. That is, when the capacity of the battery is reduced to 80% from its original value. Although actual degradation depends on cell chemistry and the use made of each battery, it is estimated that 80% of SoH is reached on average after 8 years of battery use. EMCIL, aiming to maximize the use of batteries and minimize the environmental impact of replacing them too often, will consider that their optimal state lasts up to 10 years. And that deadline can be extended further.

**$k_f$ : fleet factor.** Electric mobility is conditioned by government policies. At EMCIL, we are aware of the diverse degree of implementation of electric mobility depending on the geographical area. In fact, the decision to opt for sustainable solutions is a real gesture of courage for some Users who live in areas with delayed implementation of supporting measures.

In order to reward their private initiative, which is a precursor of a new, more environmentally friendly mobility model, the fleet factor will estimate the specific compensation by taking into account the penetration rate of electric vehicles within the fleet of each country or region. Where that degree of penetration is lower, the factor will reward compensation as a gesture of recognition towards the pioneer User. The  $k_f$  factor shall be updated annually.

## COMPENSATION FORMULA

**NOTE:** The elements of the formula may be modified to ensure the feasibility of the project, and to protect a fair compensation scheme.



**$k_c$  : quality factor.** As with any other product, the batteries of electric vehicles greatly differ in quality from each other. A low quality battery will offer a worse coulombic efficiency (at similar charge level, less energy delivered), and will degrade sooner, probably becoming useless before reaching its first expected life. Consequently, it will be difficult to use it for a second life, accelerating the generation of waste. At EMCIL, we will create a database of battery manufacturers and models, where certain indicators such as quality, durability, performance and efficiency will be analyzed. That information will allow to establish a rank that will have an influence on the compensation formula.

In case of lack of information about a certain model, the factor will be a neutral value of 1. However, when manufacturers act with transparency, provide battery data to EMCIL, and agree to perform a control test on their batteries based on current regulations, the factor for that battery model will be higher than the minimum value of 1, and will positively impact the compensation formula. The  $k_c$  factor will be continually updated as new battery models are included in our evaluation.

**$k_2$  : second life factor.** In the field of electric mobility, especially on cars, batteries are pulled out from the market if their capacity is reduced to 80% of their original value. However, these batteries can be used for other less demanding mobility applications, such as electric scooters, or for the cars themselves in applications that require less capacity. In addition, the fact that the overall capacity of the battery pack decreases to 80% as a whole does not imply that each and every one of its modules and cells perform at that lesser level. Batteries that are in good condition may continue being used.

There are several companies specialized in giving a second life to batteries, with the corresponding savings and the reduction of environmental impact. If Users acquire a second life battery for their electric vehicle, they will be rewarded with a  $k_2$  factor greater than 1. In the case of standard batteries, this factor will take the neutral value of 1.

**$c_e = (EVT / Km)$  : conversion of token per kilometer/mile travelled.**

The equivalence between the EVT clearing currency and the distance covered by the electric vehicle will take into account the following criteria:

✂ The category of the NFT, which is listed in the table below:

NFT	NFT VALUE
Electric scooters	0,02
Electric bicycles	0,1
Electric motorcycles	0,25
Electric cars	1
Electric buses	10
Electric trucks	10

**NOTE:** table values may be adjusted based on technical and market parameters.

✂ The price of electricity and of the BRENT barrel, which will determine the market price factor. In this regard, should the price of electricity exceed that of the BRENT barrel, we will take as a reference the price of the BRENT barrel, in order to avoid distortions in the compensation formula due to circumstantial or geo-political constraints. Conversely, the price of electricity will be used as a reference when it is lower than the BRENT barrel.

✂ The equivalence between the clearing currency (EVT) and the dollar (US\$), which will be determined by the market.

The ultimate goal is to compensate the user for moving based on genuine mobility needs, and preventing that mobility itself becomes a profit activity. The value of  $c_e$  will be reviewed daily, using the data from the price of the BRENT barrel and the price of the wholesale electricity market of each country (both data come from public sources and are easily accessible). As for the EVT:US\$ equivalence, our reference will be the average exchange rate of the previous day.

## TEAM

## 04

<b>SANTIAGO MARTÍNEZ</b> President	Degree in Architecture. Investor and passionate about the Crypto NFT and Metaverse world.
<b>JESÚS HIGUERAS</b> Vicepresident	Doctor. More than 30 years of investment experience, passionate about the crypto, NFT and metaverse world.
<b>JOSÉ CASTILLEJO</b> CEO Chief Executive Officer & Co-Founder	Economist with more than six years of experience in the crypto world as an investor and disseminator, passionate about NFT and METAVERSO.
<b>VICENTE ROSELLÓ</b> CFO Chief Financial Officer	Chartered Accountant Auditor. Investor and crypto enthusiast.
<b>ANDRÉS GONZÁLEZ</b> CLO Chief Legal Officer	Lawyer and Social Graduate. Passionate about developing new projects.
<b>MANUEL CAMPILLO</b> CTO and R&D Chief Technical Officer and Director Chief Research and Development	Degree in Energy Engineering. Enthusiast of the world of new technologies and new utility projects.
<b>PAULA HIGUERAS</b> CMO Chief Marketing Officer	Degree in Advertising and Public Relations. Marketing expert. Investor in the crypto world and committed to the planet.
<b>ANDREU JIMÉNEZ</b> CIO Chief Information Officer	Degree in Advertising and Public Relations with experience in online content creation and investor in new technologies.
<b>FRAN RAMO</b> Web Development Director	Founding Partner and Managing Director of a design, programming and advertising studio. Investor and passionate about web3, NFT and Metaverse.
<b>JOSÉ MANUEL TIRADO</b> Creative Director	Creative and expert in motion graphics development. Committed to the sustainable development of the planet.
<b>LAURA CAMPOS</b> Advertising Director	Degree in Journalism and Advertising and Public Relations with experience in internal communication, social networks and metaverse.

# ANTI CHEATING SYSTEM

05



We will reach agreements with Original Equipment Manufacturers (OEMs) in order to implement a customized verification system comparing the purchased vehicles against the purchased NFTs as a requirement to access the “Drive Electric to Earn” model. OEMs that adopt this system will have a competitive advantage over other manufacturers. Our app will use GPS and GLONASS services to verify the location, completed route, and complementary aspects of the vehicle, such as the speed of the vehicle in question.

If the speed limit allowed on the road is exceeded on a ride, either as an average or at a specific point during the ride, EMCIL may cancel the reward, warning the User that such conduct is violating traffic regulations.

As an example, if an electric scooter’s NFT is detected at a speed of 40 km/h, the reward for that ride will be immediately voided.



# TAX AND FEES

06

EMCIL establishes a fixed fee of 3% on the amount of each transaction done with **EMC** and **EVT** cryptocurrencies.

## CONCEPTS

Fee transactions	3%
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The fees for the BEP-20 network may vary depending on the saturation of the network between the different existing wallets. We bring to your attention that this network is based on the BSC blockchain, and that, at the date of publication of this Whitepaper, the fees offered by this network are among the lowest in the crypto market.

## ROADMAP

## 07

**NOTE:** during the project development, we plan to continually update information on available electric vehicle batteries, and on the penetration rates of the electric mobility in the different countries.

**2022 - Q1**

Birth of the idea of EMCIL. The dream begins.

**2022 - Q2**

Team recruitment and definition of the project strategy.

**2022 - Q2/Q3**

Company incorporation and development of the technical, economic-financial, marketing, legal and investment areas.

**2023 - Q1**

Launching of EMCIL's website and social networks. Public release of the project.

**2024 - Q1**

Iberdrola Award for the "Best Public Solution for Sustainable Mobility."

**2024 - Q2**

Preparation and release of EMC tokens for pre-sale, directed to funding and executing the project.

**2024 - Q2**

Partnerships with associations and institutions in different countries to promote sustainable mobility and safe driving.

**2024 - Q3**

Release of the EVT clearing token.

**2024 - Q4**

Bilateral agreements with OEMs to spread the project, and to integrate the EMCIL application into the vehicle's operating system, which will provide additional added value to it.

**2024 - Q4**

Development and calibration of the EMCIL app that will include the automatic compensation system embedded.

**2025 - Q1**

Launching of the app.

# PRIVACY

08

At EMCIL we strictly comply with Spanish and EU legislation on data protection, Organic Law 2016/679 and General Data Protection Regulation of the European Union - RGPD.

EMCIL has no interest in the exploitation of the personal data provided for commercial purposes.

No data collected will be provided to third parties.

The collection of data is carried out for the sole purpose of allowing the correct performance of the app.

All personal information collected in connection with our business is subject to strict confidentiality rules.

You may choose not to provide some of the personal information requested. However, please note that some of our services will require certain personal information to operate. If you decline to provide the personal information we need to operate and deliver a particular service or feature to you, you may not be able to use that service or feature.

We will only keep your information during the necessary time to fulfill the purposes for which your personal information was originally collected.

You can review our entire privacy policy on our website:

[www.emcil.org](http://www.emcil.org)

```
server_mod.use_y = False
server_mod.use_z = True

#selection at the end -add back the deselected
server_ob.select= 1
modifier_ob.select=1
app.context.scene.objects.active = modifier_ob
print "selected" + str(modifier_ob) # modifier
server_ob.select = 0
app = bpy.context.selected_objects[0]
app.data.objects[one.name].select = 1
```



# WHITE PAPER

Investing in crypto assets is not regulated, may not be suitable for retail investors  
and the entire amount invested may be lost.

# emcil

MOVE YOUR MIND