HELBIZ

MOBILITY SYSTEM

C O N T E N T

RHTLaw TaylorWessing
International Capabilities Delivered Locally

SHARE
YOUR WHEELS

Helbiz is a peer-to-peer market-place that makes renting a car, motorcycle or bicycle convenient, affordable and rewarding.

Helbiz combines the familiar carsharing approach in the transportation sector with Blockchain technology. Our mobility ecosystem will soon provide access to individual vehicles as well as fleets and other transportation services.

Helbiz Mobility System is a platform based on the Ethereum Blockchain and powered by the HelbizCoin tokens (HBZ).

Helbiz will be the first company adopting HelbizCoin and leveraging the Helbiz Mobility System, a platform that will be open to other companies with interests in mobility related services (e.g. insurance companies) and willing to join the Blockchain revolution using data and building dApps (Decentralized Applications) on top of the Helbiz Mobility System.

HelbizCoin is the ERC20 token that aims to become the preferred method to pay for transportation services through the Ethereum Blockchain and to access the ecosystem of services provided by the Helbiz Mobility System.

The adoption of cryptocurrencies will impact the way we access mobility services in the future and HelbizCoin is poised to play a leading role in this new era of transportation and sharing economy.

THE **VISION**

Helbiz is a fully integrated mobility ecosystem with a customer centric approach, consisting of **Helbiz**, a peer-to-peer vehicle sharing application, and the **Helbiz Mobility System**, a platform on the Ethereum blockchain open for other companies with interest in mobility related services utilizing blockchain technology (e.g insurance companies) powered by the native **HelbizCoin (HBZ)**. Helbiz will be the first company adopting HelbizCoin and leveraging the Helbiz Mobility System, wishing to combine the familiar approach of car sharing in the transportation sector with Blockchain technology. Our mobility ecosystem will soon provide access to individual vehicles, fleets and other transportation services as well as control over data sharing.

Blockchain technology allows the registration of all services, of all services provided through the platform and transactions between owners, operators and external service providers are automatically processed through a single payment system of origin based on the use.

The most important sharing economy technology giants, Uber and Airbnb, are often cited as examples of collaborative economics, but one could argue that they are not exactly centralized platforms. A precise definition of a collaborative economy ecosystem would be one in which technology allows people and companies to share their resources and data and, if they wish, receive the corresponding payment.

The Helbiz platform will allow all the involved parties to be fairly rewarded for their contributions into the mobility ecosystem, as the Blockchain technology will permit to verify each single input, whether coming from a corporate authority or an individual.

Picture being able not only to benefit from sharing car but also your driving data. Imagine being rewarded not only because you rented out your vehicle but also because of all the data you create and share. Imagine being able to use those rewards for travel and services. Imagine this data being used to further improve mobility services. Applying this technology will transform the future of mobility and data sharing, and will create a more fair and transparent process. For example, when renting a vehicle, insurance considerations are recorded in an intelligent contract, payments are based on usage and accounting and Helbiz allows you to be rewarded for both the goods or data you share.

Sharing Your Data

Imagine a future where the control of personal data is given back to the particular user ensuring complete privacy and being given the option to sell to 3rd parties using Helbiz as a platform. No longer is monetization limited to physical assets or services. In turn being rewarded not only because you leased your vehicle, but also by driving or having others drive your car all thanks to the data you create. Imagine being able to use those rewards for travel and services. Imagine this data being used to further improve mobility services. Applying this technology will transform the future of mobility and data sharing, and will create a more fair and transparent process where the control of personal information and data is put in the hands of the individual creating it and not the corporation providing the service.

THE **CHALLENGE**

Sharing Economy

The sharing economy refers to a new socioeconomic phenomenon that provides individuals with an opportunity to enable mutualization of personal goods and services. However, even if the sharing economy is based on a peer-to-peer model, there are intermediaries that charge a fairly high fee to facilitate transactions.

While the sharing economy has been remarkably beneficial for society by enabling individuals to supplement their incomes and lowering costs for consumers, the industry is run by centralized platforms acting as authorities and charging substantial facilitation fees.

Fair Economic Value

Today, the existing peer-to-peer rental marketplaces, like Turo or Get Around, allow customers to rent a vehicle for a far cheaper price when compared to standard renting services like Avis and Hertz. These platforms work on a quite simple principle: on one side, car owners can agree to share their car for use, thus, making money. On the other, consumers can instantly rent a car, saving money when compared to traditional renting services.
The current players claim to be "changing the economics of car sharing". The catch is that vehicle owners still need to give up a fair amount of economic value, in fact owners typically receive 75% of the amount paid by renters
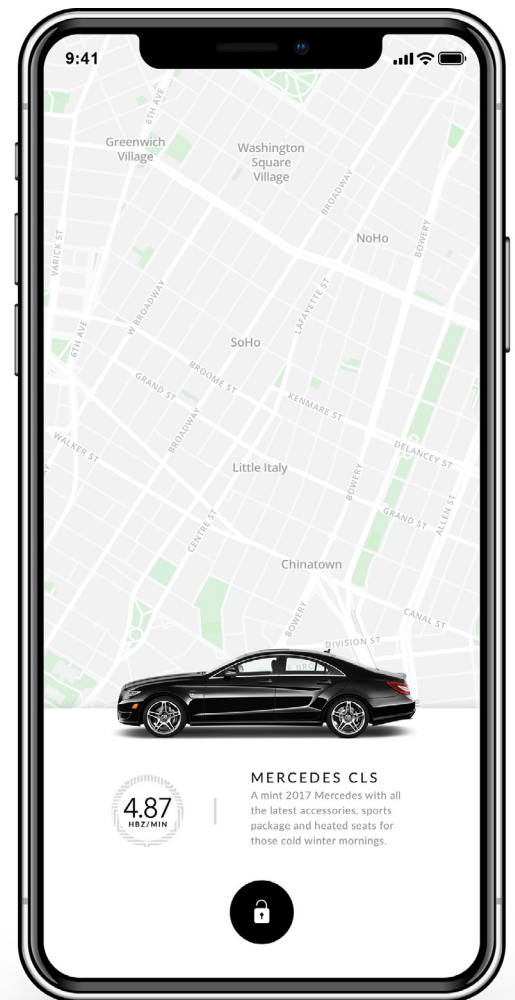
BLOCKCHAIN CAR
& DATA SHARING

Todays blockchain revolution can minimize tradition-al ride sharing transaction fees. By moving the sharing economy to the Blockchain's decentralized network, we democratize the platform for the benefit of active con-tributors of ecosystem.

Currently, centralized sharing economy platforms have two key roles in sustaining the sharing economy:

They connect buyers and sellers through a technology platform;

They provide a secure and trusted environment for the final user.

MERCEDES CLS
A mint 2017 Mercedes with all the latest accessories, sports package and heated seats for those cold winter mornings.

4.87
HBZ/MIN

The Solution - Blockchain Sharing Economy

However, by implementing Blockchain technology in the collaborative economy, it is no longer necessary for a central authority to ensure that the terms and conditions are met and that transactions are carried out accordingly with customers.

The distributed ledger technology can provide smart contracts, digital identities linked to a publicly viewable user reputation systems and digital currency payments, all of which alleviate the need for a central authority.

Blockchain is best known as the technology underpining the cryptocurrency bitcoin. First sketched out by Bit-coin inventor Satoshi Nakamoto in 2008, it's since been adapted as a way to track the movement of all kinds of digital assets, from insurance contracts and loyalty points to electrons on electricity grids.

Blockchains are decentralized ledgers spread across thousands (or more) computers, and they have no singular authority. Each transaction within a time period is recorded in a block, which refers back to a previous block, creating chains of blocks. As such, Blockchain technology allows the creation of permanent records, and therefore, is highly secure and trust promoting.

The Benefit

Blockchain technology has the potential to **reduce transaction and trust costs** that prevent car owners from monetizing their vehicles and driving data. Helbiz aims to create value automating three key areas:
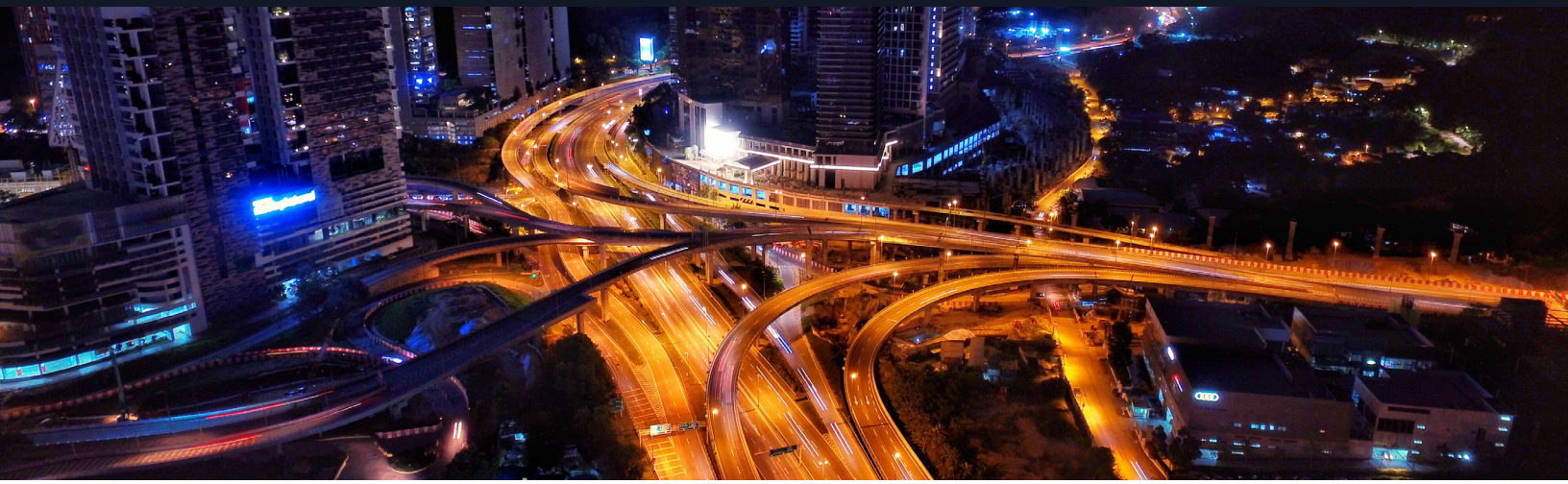
Shared ownership of the vehicles

Services associated with the vehicle utilization;

All the data that's produced from the vehicle use

THE HELBIZ
MOBILITY SYSTEM

The **Helbiz Mobility System** is a platform based on the Ethereum Blockchain and powered by the Helbiz-Coin tokens. Helbiz will be the first company adopting HelbizCoin and leveraging the Helbiz Mobility System, a platform that will be open to other companies with interests in mobility related services and willing to join the Blockchain revolution using data and building dApps (Decentralized Applications) on top of the Helbiz Mobility System

General Description

The system connects car owners, renters and service providers through a simple, easy to use interface. To simplify the process and increase Helbiz-Coin adoption, Helbiz Mobility System will integrate several services in one single platform including:

- An explorer to discover available transportation options and related services;

- An internal exchange to convert major cryptocurrencies, like bitcoin and Ethereum into HelbizCoin;

- A built-in wallet to store and use the tokens easily;

- Templates of smart contracts to allow vehicle owners to share their assets;

- Templates of smart contracts for data providers to set the rules and the level of reward they are willing to offer to data owners, whilst the latter retains control to cancel the contracts or edit permissions.

HOW **IT WORKS**

1. BROWSE CARS

Access to mobile application to search for available vehicles nearby;

2. VERIFICATION

The system will guide you through the verification of your digital identity. At the same time, the vehicle owner will need to verify their identity as well;
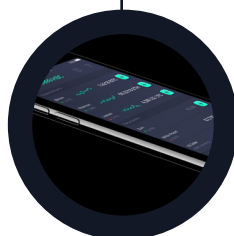
3. TERMS

You will then have to accept the terms and conditions, such as the fare and duration of the rental, and purchase an insurance policy covering the trip, through an immutable intelligent contract;

4. DRIVE

Once the terms and conditions have been agreed and the smart contract has been verified, your smartphone will have remote key access;

5. PAYMENT

The payment for the service will be deducted directly from your digital wallet and will be transferred to the owner of the vehicle at the end of the trip.

Privacy & security

Helbiz proposes an interconnection with a range of sophisticated services specific to the vehicle owners, transport partners, and external services. We also solve a series of security and privacy issues i.e. location detection or direct remote control. In particular, by using blockchain technology it is possible to identify many solutions to these challenges. We propose an architecture based on securing privacy for users, increasing the safety of the vehicle's ecosystem and expanding the market to all independent operators.

The data provided by the vehicles holds confidential information, such as location, and therefore can open new privacy challenges. The conventional methods of security and privacy used in smart vehicles tend to be ineffective due to the following challenges:

- **Centralization**: the current architecture of "smart" vehicles is based centralized models of mediated communication in which all vehicles are identified, authenticated, authorized and connected through central servers in the cloud. It is unlikely that this model will scale as there is a large number of vehicles connected. In addition, servers in the cloud will continue to be so bottleneck and a single point of error that can annoy the entire network.

- **Lack of privacy**: most of today's secure communication architectures do not take the user's privacy into account, they resort to the exchange of all vehicle data without the owner's permission or reveal noisy or summarized data to the applicant. However, in several applications for smart vehicles, the applicant needs accurate vehicle data to provide personalized services.

- **Security threats**: Smart vehicles have an increasing number of autonomous functions. A malfunction due to a security breach (for example, during the installation of a malicious SW) could cause serious accidents that endanger the safety of passengers and other road users who are very close.

Helbiz advantage comparison

Application	Conventional Methods	Advantages introduced by Helbiz Platform
Market Management	Centralized – not scalable Partial participation – not addressing the full chain Lack of privacy: a direct link between the vehicle and App Mgt System can compromise the driver's privacy (e.g., driver behavior or location) Only App Mgt System can verify communications or history of update downloads/communications	Distributed data exchange and security provide scalability End-to-end: involving SP, OEMs, vehicles, service centers, insurances etc Ensure privacy of the user (also for diagnostics) Update history as well as authenticity of the SW can be publicly verified
Insurance	Current systems are often unsafe, which puts the integrity of the vehicle at risk Users have no control over the data exchanged Privacy sensitive data must be sent continuously to the insurance company to receive the services	Safe and distributed data exchange that preserves privacy Users control the data exchanged confidential data is shared on demand (for example, an incident) rather than a continuous exchange of data The authenticity of the data stored in the users' wallet can be confirmed in a transparent manner on the blockchain
Car-Sharing services	Central payment and accounting Users can be monitored by their identity Central authorization The location and behavior (e.g., using a specific charger on a specific day) of the user can be tracked	Private and decentralized security, payments and accounting Users use changeable identities Distributed authorization User data such as location information remain private

Table 1. A summary of Helbiz Blockchain based Platform advantages compared to conventional methods

Giving users ownership of the data they produce is increasingly important in terms of greater capacity to collect and analyze data from people. In light of this challenge, Helbiz further proves how blockchain technology can allow privacy, trust among parties and eliminate various forms of fraud. Through recording and constantly updating all data of a particular vehicle; such as mileage, damage history and GPS data and protecting it in the blockchain, it prevents for example odometer & title washing fraud.

Our users own and control their data, while ensuring complete integrity. This facilitates certification of those data and enables a new kind of "mobility data marketplace" where Helbiz aims to provide users with seamless options through the application to share their data with 3rd parties in exchange for tokens.
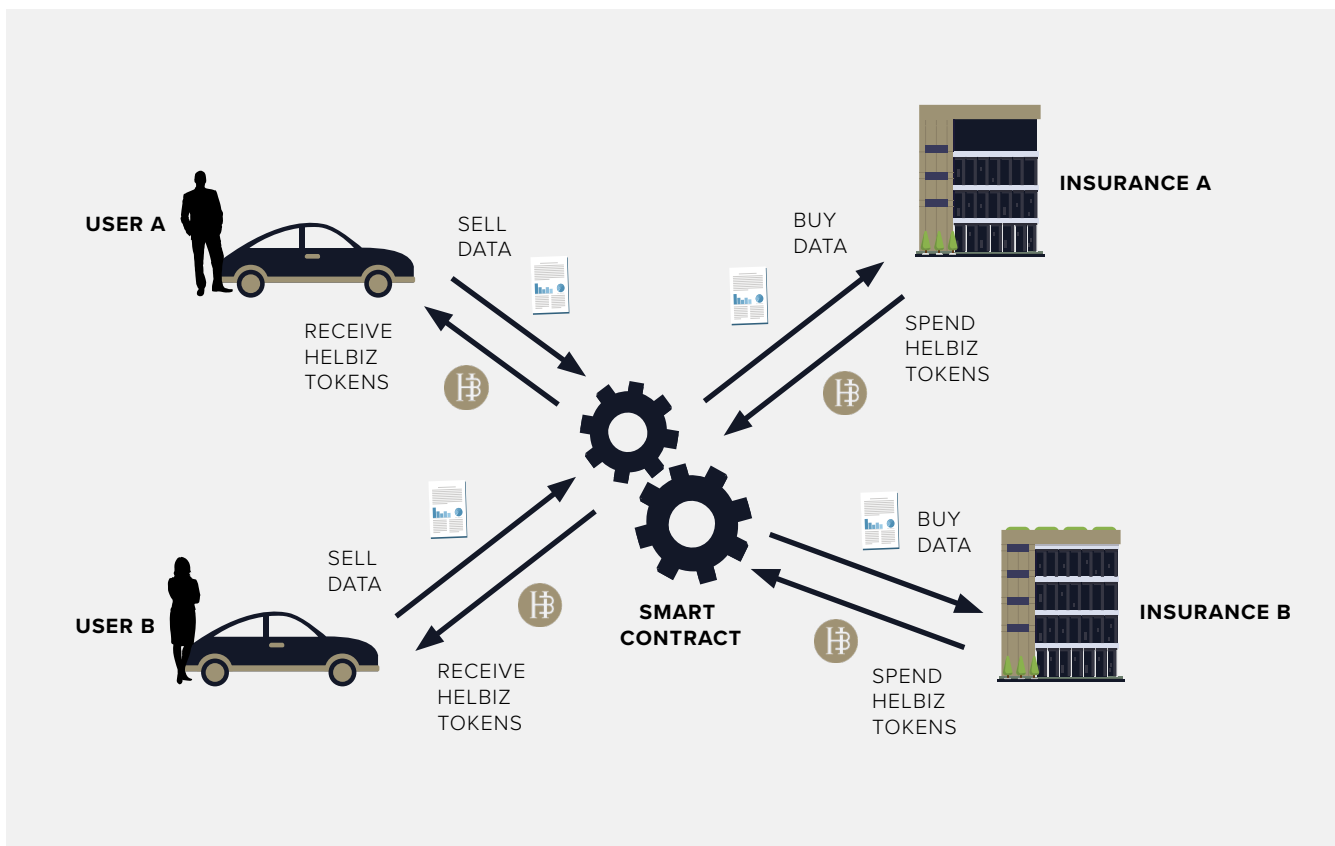

Figure: High Level Architecture of Helbiz Mobility Platform

THE **SCENARIO**

In this scenario, no central authority is needed to agree on transaction terms, verify payments or screen participants' identities as all that would be handled by the distributed ledger technology underlying the transaction.

TRANSACTION SCENARIO

Smart Contract → Verification → Shareability → Payment

1 A smart contract verifies the following conditions: ownership of vehicle, willingness to share it with customers meeting the minimum reputation score, and specific conditions of the vehicles availability;

2 Any individual wishing to rent a vehicle needs to meet these criteria, then unlocking the doors for rental, and then allowing the start of the engine;

3 The renter will have the option to share his data and be rewarded accordingly;

4 The contract will also facilitate payment using HelbizCoin, a dedicated currency for the purpose, that will allow participants to avoid financial transaction fees coming from the use of money in a traditional ecosystem – for instance, the fees we pay to Mastercard and Visa.

Register & Verify Identity

To create an account on the Helbiz Mobility System, vehicle owners must register and receive verification in order to be able to show their vehicle on the platform.

Once registered and verified, they will be able to share various information with potential renters (e.g. general info, vehicle address and images, reviews) through a public profile. Helbiz Mobility System will also provide a private dashboard to manage all information, actions, orders, transactions and connection with other users..

Vehicle renters will have the option to share different levels of their personal data choosing the preferred privacy settings through their private dashboard.

Share Data

As a data owner you will probably want to know who is accessing and using your data, what is it being used for, and if you are rewarded for the value you provide.

By using Blockchain to map virtual identities, you can create a trusted community of users. Smart contracts add an additional layer of privacy by tokenizing recorded data and personal information. This personal information could be encrypted and viewable only by parties that have either the legal right to do so or are participating in the transactions. The immutability of data further prevents fraud. In the near-future Blockchain gives near-real-time insight into where and how data is being used. The transparency of realized value combined with micro-payments opens opportunities for granular value-based pricing of data. The Helbiz Platform Blockchain Module can store vehicle usage data and information about vehicle owners, drivers and passengers. This profile information can help validate a smart contract between two parties and manage the payment of services between them without the need for a financial intermediary, thus saving transaction fees. The system can also provide connectivity to vehicle functions for remote lock / unlock doors and engine start / stop.

Data Consumers (Insurance Example)

New models for insurance services could be originated by the Blockchain technology applied to mobility services. Currently, the amount that consumers pay for coverage depends to a large extent on how the insurance company spreads the risk among a large group of different customers and requests, a price model that is not particularly personalized. Blockchain will allow insurance based on usage, where the amount paid by each individual will be based on the real use of the vehicle.

CONVERT & USE
HELBIZ COIN

Helbiz Mobility System will allow users to convert major cryptocurrencies into HelbizCoin at the current exchange rate, while the built-in wallet will allow every registered user to easily manage and store HelbizCoin tokens without external services.

Users will be able to convert major cryptocurrencies such as Bitcoin, Ether, Litecoin, Dash and ERC20 tokens into HelbizCoin with the aim to add an increasing number of cryptocurrencies and also fiat currencies in the future.

Discover and Connect with the ecosystem

Helbiz Mobility System will not only allow users not only to find vehicles available on their platform, but also to search and review different service providers accepting HelbizCoin as a form of payment. Users can also connect with 3rd

parties willing to reward them for access to their data. At the same time, service providers will be able to publish their offering, create and send direct marketing campaigns and request feedback.

Easily deploy smart contracts

Smart contracts being computer protocols designed to facilitate, verify, or enforce the negotiation or performance of a specific set of rules are ideal to facilitate the automation of peer-to-peer vehcle sharing. The Ethereum blockchain specifically allows the registration and execution of smart contracts in a secure and decentralized way.

Implementing smart contracts in the transportation sector adds a layer of security and effectiveness, allowing the transfer of funds and data only to expected recipients and if specific conditions are met. Helbiz Mobility Ecosystem will provide vehicle owners and service providers with templates of smart contracts that can be easily customizable with the click of a button.
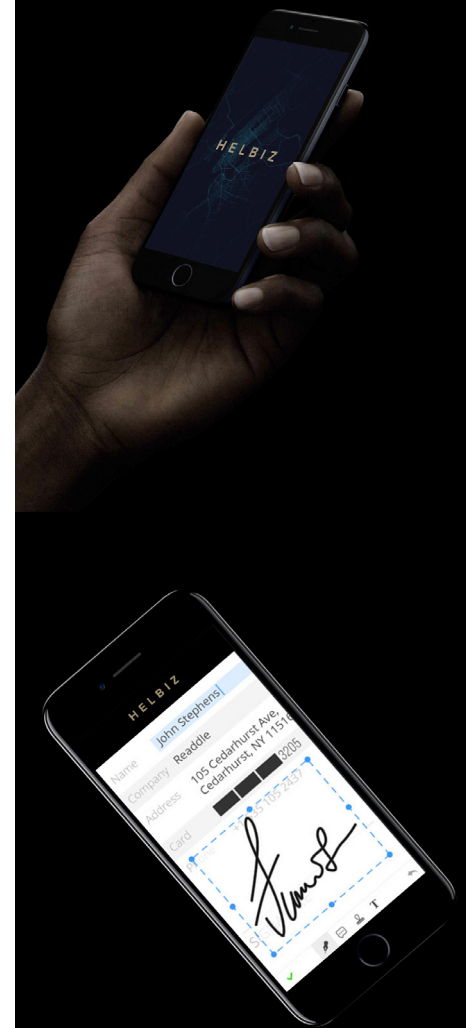
HELBIZ

THE HELBIZ
ECONOMIC MODEL

In order to deliver a viable business model for the long term, we establish HelbizCoin to be a pay-per-use model for getting onto the Helbiz Mobility System or for using services available on the platform. Helbiz will drive revenues through tools and services on the Helbiz Mobility System.

According to our long-term view, we foresee few revenue streams:

1. Commission from the price the end user is paying for the rental, a fraction of current car sharing services;

2. Commission from the price the service providers are paying directly to the users to share their data;

3. "Exchange" fees for using the internal exchange to convert major cryptocurrencies into HelbizCoin;

4. Commission on the digital locks;

5. Other services for the car owners. The company has access to a lot of data (e.g. usage, status) that may be using to sell additional services to the vehicle owners (e.g. time to check the brakes).
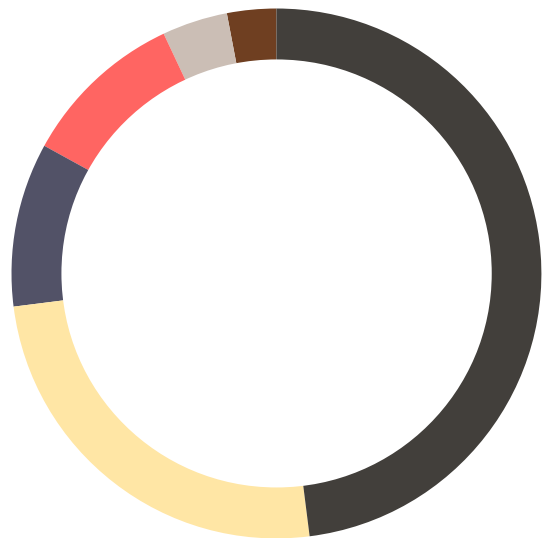
A Blockchain community ecosystem combined with a token needed to access services aligns incentives and generate much more participation in the platform. The products and services becomes more useful as more users join the system and require and use tokens.

TOKEN **GENERATION**

In order to further develop the platform, Helbiz will conduct a token generation event that will offer 520.000.000 HBZ tokens of the 1 billion total supply. The funds raised will be used for development of the Helbiz platform, business development; onboarding new car owners, rentals, dealerships, collaborate with insurance and PR & Marketing companies to raise project awareness, token usability while at the same time building a strong local community.

TOKEN ALLOCATION

- 48% sold to public as crowdsale
- 25% held in reserve by Helbiz to fund future user growth fund and expansion
- 10% Advisors and Early Backers
- 10% team
- 4% Pre-sale
- 3% Bounty Program

USE OF FUNDS:

40%	35%	20%	5%
PRODUCT DEVELOPMENT	**BUSINESS** DEVELOPMENT	**MARKETING**	**LEGAL**
• Development of the Helbiz platform according to product roadmap	• New car owners, car rentals, ownerships & veichle manufacturers on Helbiz platform	• PR & Marketing to raise:	
	• Educate all actors involved on the use of the platform and ongoing support	• Project awareness	
		• Token's adoption	
	• Secure partnerships with other Blockchain players to increase token useability	• Build local community	
	• Collaborate with insurance companies to develop programs based on Helbiz		

TOKEN DETAILS	
Symbol	HBZ
Maximum supply	1,000,000,000 HBZ
Type	ERC20
Price in pre-sale	1 ETH = 8,000 HBZ
Price ICO	1 ETH = 6000 HBZ
Pre-sale period	01/26/2018 - 02/14/2018
Crowdsale period	02/15/2018 - 03/04/2018
Minimum Cap	5,000 ETH
Maximum Cap (including pre-sale)	62,500 ETH

The initial generation of HelbizCoin is programmed by a smart contract running on Ethereum and will be distributed as follows:

• 4% of HBZ tokens (40M) will be sold during the pre-sale and will be transferable when crowdsale ends;

• 48% of HBZ tokens (480M) will be sold during the crowdsale and will be transferable when crowdsale ends;

• 10% of HBZ tokens (100M) will be allocated to the team and will be vested for 12 months;

• 10% of HBZ tokens (100M) will be allocated to early backers and advisors that have contributed to the project's success.

• 25% of HBZ tokens (250M) will be allocated to an User Growth Fund to incentivize HelbizCoin adoption and bootstrap the ecosystem;

• 3% of HBZ tokens (30M) will be used to eventually create a bounty program. Unused token will be reallocated to the User Growth Fund.

NATIVE **TOKEN**

The choice to create a native token for Helbiz transactions is not casual. A hard-coded economic logic can create immense value, but has risks. If the economic logic is well designed, it drives rapid growth. If poorly designed, it could create friction in the product. The conclusion of our careful analysis was that only a native token allows HELBIZ to optimize for the 3 desired objectives. It creates a car & data market that makes transactions uniform, guarantees international access and encourages network growth, a native token and an optimized economic model for a "car & data" market.

Underlying Reasoning

International payments without authorization, open to the world: HELBIZ opens the technology of car & data sharing to a whole world of stackholders. To guarantee fair and non-discriminatory access, a single token is required that is not connected to any external economy. Any trust currency would create barriers for those who can not use that currency and make the sharing economy of HELBIZ vulnerable to manipulation by the economy that backs that currency.

Scaleability for Transactions

A Scalable Transaction Infrastructure, for the Car & Data Sharing Economy: To enable a true sharing economy, a scalable transaction infrastructure is required. Current networks (Bitcoin, Ethereum), at this moment, cannot support the transaction volume required, but we believe that Ethereum in the "near" future will be scalable (see Sharding project)

Network Incentivization

Network Incentivization via Inflationary Rewards with Decentralized Regulation: Inflationary rewards let the network reward participation in a psychologically frictionless way. The only other way to reward participation is through taxation of others, which creates immense psychological burdens for users. This creates a detrimental product User Experience (UX) and weakens incentives to grow the network.

HELBIZ **TOKEN** (HBZ)

The HELBIZ token is straightforwardly a utility token, with a core purpose of being used to buy and sell car service and users data carried out by decentralized software wrapped in HELBIZ APP, so it has mainly consumptive use.

This token can be acquired during the token generation event, and will also be distributed after the token generation event, to participants in the evolving economy. The release of HELBIZ tokens after the initial token issuance event will occur via a schedule which can be modulated via democratic governance in the future.

Salvatore Palella

Salvatore Palella
Co-Founder & CEO

ROADMAP

Q1 2018 — **LAUNCHING**

Launching the token pre-sale and crowdsale (ICO) and getting listed on a top exchange. MVP of Helbiz marketplace and launch of operations in NY (Jersey City).

Q2 2018 — **INTEGRATION**

Initial integration of the blockchain system for payments.
R&D for wallet and reward system.
Helbiz app operations established in NY.

Q3 2018 — **PRIVATE ALPHA**

Private Alpha allowing data owners to share and sell their data.
Helbiz app expansion to a second city in US.

Q1 2019 — **BETA VERSION**

Beta version of wallet, exchange and reward system.
Helbiz app expansion in 4 additional cities in US.

Q2 2019 — **PUBIC VERSION**

Version 1.0 of Helbiz Platform online.

THE **TEAM**

Salvatore Palella
Founder

President & founder of Helbiz inc. brings a decade of experience in finance & investments.

Michele De Buono
General Advisor

+15 years in development and management of ICT startups and large companies, senior innovations manager in Cybersecurity strategic projects and expert in Public funds.

Armando Calvosa
Co-Founder

A serial entrepreneur, crypto expert and founder of an established digital marketing firm specializing in and advising blockchain startups and ICO's.

Milos Citakovic
Co-Founder

Milos brings a decade of experience building consumer facing technology products and is in charge of product development.

Michael Coppola
Strategic Advisor

Business operator, investor, advisor. A decade experience in mobile & enterprise technology. Held leadership roles with $200M+ exits, & raised over $100M in capital for startups.

Justin Giuliano
President Blockchain operations

Experienced fin-tech consultant with over 8 years of financial services, technology, blockchain and management consulting experience working for a global consultancy.

Jonathan Hannestad
Strategic & Creative Director

Entrepreneur with a creative tech background; has created & executed strategies for everything from startups to globally recognized brands & tech companies.

Giulio Profumo
Investor & Advisor

Fin-tech advisor, with over 8 years of experience in financial services, blockchain and technology.

Stefano Ciravegna
Crypto Advisor

Entrepreneur, C level advisor, former private equity investor, with several years of experience in marrying traditional asset classes with blockchain technology.

Jelena Stojanac
Community Manager

Jelena is in charge of supporting and growing our community.

Nemanja Stancic
Head of Engineering

Nemanja is the head of engineering and software development. He has over a vast experience in building scalable platform.

Elia Fedorovski
Head of Growth

Elia is in charge of operations, business development and making sure Helbiz grows quickly while maintaining the highest quality.

RHTLaw TaylorWessing
International Capabilities Delivered Locally

RHT LAW is Helbiz Singapore-qualified legal counsel.
A copy of the legal opinion issued in support thereof may be obtained from Helbiz upon request.

"Helbiz will revolutionize the transportation industry by decentralizing the sharing economy & giving personal control to the user"

SALVATORE PALELLA
FOUNDER & CEO

H E L B I Z

EMAIL	coin@helbiz.com
WEBSITE	helbizcoin.io
ADDRESS	19 Cecil Street #04-01, Singapore, Singapore
DATE ISSUED	02.02.2018