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Environmental Data Tracking & Mobile Mining with Blockchain

envidatoken.io

Whitepaper



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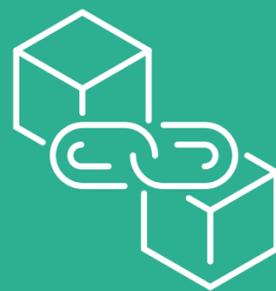
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Disclaimer **and** **Abstraction**

Disclaimer and Abstraction

"-a new generation of environmental tracking devices combined with mobile mining rigs that can be implemented in different vehicles."



The purpose of this Whitepaper is to present EnviDa — a new generation of environmental tracking devices combined with mobile mining rigs that can be implemented in different vehicles — to potential community members, who want to join the EnviDa Community, in connection with the proposed EnviDa Token Launch, or “Initial Coin Offering” (“ICO”) and Crowdsale.

The information set forth below should not be considered exhaustive and does not imply any elements of a contractual relationship. Its sole purpose is to provide relevant and reasonable information to potential utility token holders, in order for them to determine, whether to undertake a thorough analysis of the company with the intent of acquiring EnviDa (EDAT) Tokens.



Disclaimer and Abstraction

Nothing in this Whitepaper shall be deemed to constitute a prospectus of any sort of solicitation for investment, nor does it, in any way, pertain to an offering or a solicitation to buy any securities in any jurisdiction. The document is not composed in accordance with, and is not subject to, laws or regulations of any jurisdiction, which are designed to protect investors.

Certain statements, estimates, and financial information, contained within this Whitepaper, constitute forward-looking, or pro-forma statements and information. Such statements or information involve known and unknown risks and uncertainties, which may cause actual events or results to differ materially from the estimates or the results implied or expressed, in such forward-looking statements.

Environmental Data Tracking & Mobile Mining with Blockchain



Summary

Summary

The EnviDa project has set itself the task of creating a decentralized solution for the collection of sensitive, future-relevant environmental data.

Based on our self-developed DriveMining technology, we are creating a blockchain-based ecosystem that provides a globally independent foundation for the collection, storage and utilization of mobile environmental data.

Different types of sensors can be connected via multiple interfaces depending on the region, relevance and area of interest.



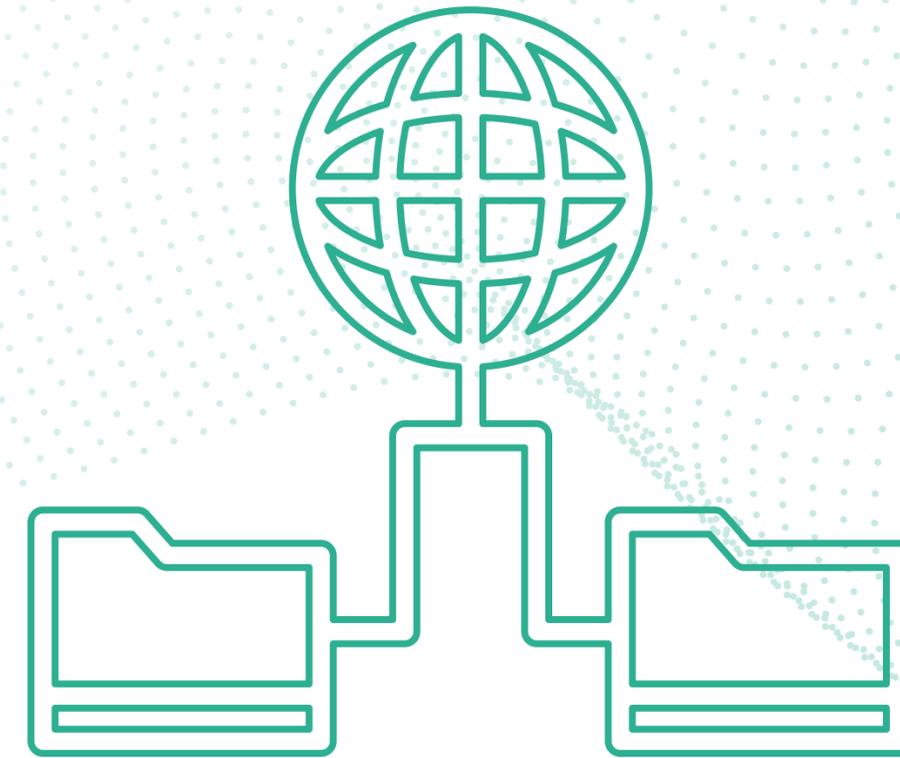
The DriveMining system thereby works independently from the connected sensors and generates passive income for the respective user by mining cryptocurrencies. The basic idea behind this project is to equip transportation companies, such as cabs, Uber or delivery services, with our DriveMiner system, which can currently be integrated into hybrid and electric vehicles and will permanently mine various cryptocurrencies.

Different types of sensors can be connected via multiple interfaces depending on the region, relevance and area of interest. If environmental data is collected, the user is given the opportunity to mine the EnviDa token and receives a reward for collecting the data. This data can then in turn be purchased by third parties in exchange for EnviDa tokens, which can be bought on exchanges.

Summary

The EnviDa token will first be deployed on the Polygon chain and swapped to our own blockchain during the course of this project, where miners will validate all transactions in the blockchain and receive EnviDa tokens as rewards.

Based on this ecosystem, a globally networked, decentralized environmental data blockchain will emerge, which will collect detailed environmental data of cities in an unmanipulable way and without political or industrial influence, thus providing the data basis for future environmental projects.



"This data can then in turn be purchased by third parties in exchange for **EnviDa tokens**, which can be bought on exchanges."



The Solution of EnviDa



1. Background

Today, there is a huge challenge to stop global warming on a worldwide basis. That means, on the one hand, to reduce the CO₂ output if it is possible and on the other hand to reduce its impact on the population by more traffic control, especially in cities.

Therefore, there are a lot of fixed measuring stations to control the air and start some activities if the measured data exceed some limits. But these stations are fixed and only along streets with high traffic. What is missing is a frequent measurement nearly overall in the cities. This is only possible with mobile equipment.

Cities are responsible for more than 70% of the global total greenhouse gas (GHG) emissions.¹ CO₂ is one of the major causes of air pollution in big cities, with combustion engines of vehicles being responsible for a major share of the harmful particles in the air. Indeed, this problem is not new, and despite the efforts of many countries to reduce the effects caused by them, many are not only falling behind but also slowly becoming close to uninhabitable.

Cities are responsible for **more than 70%** of the global total greenhouse gas (GHG) emissions.



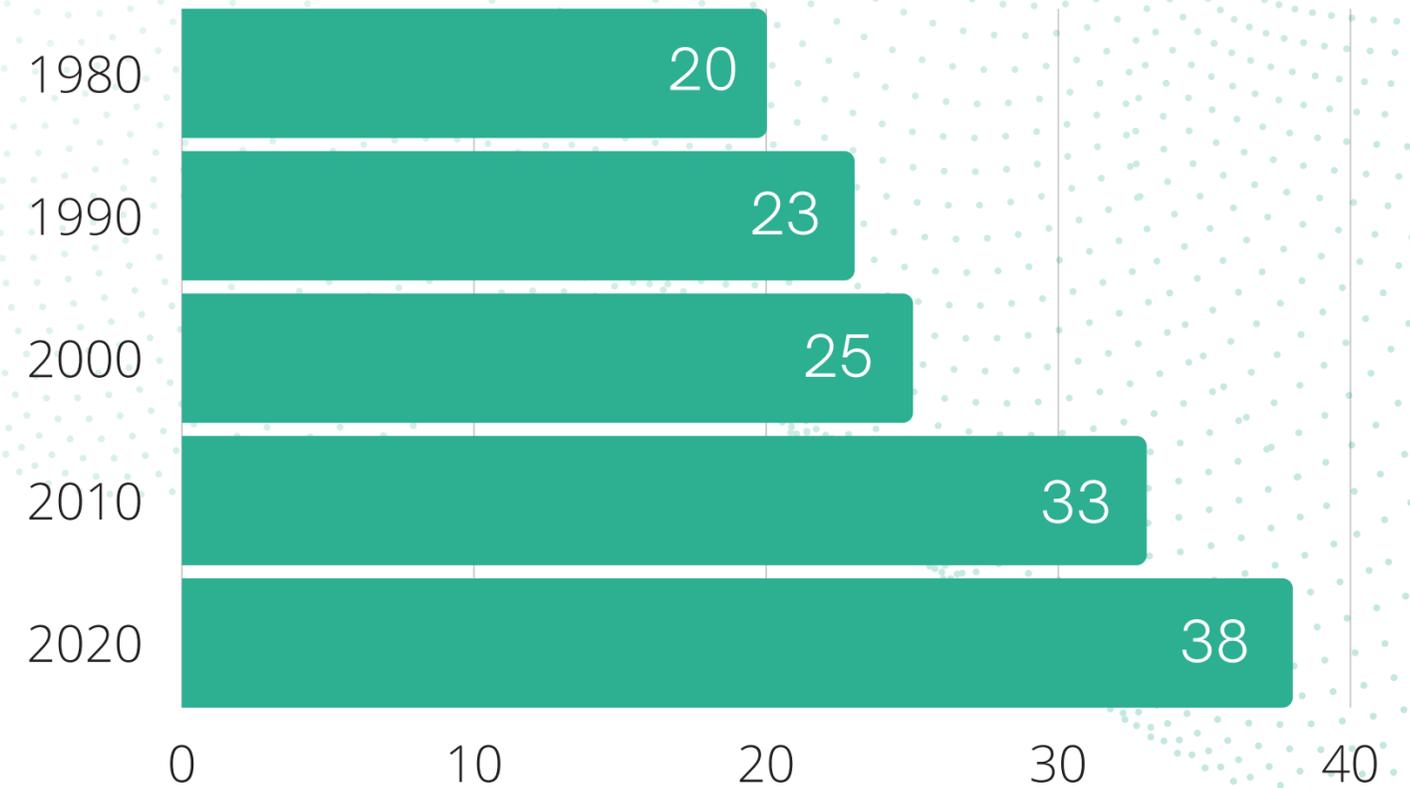
¹ Commercial airliners monitoring CO₂ emissions from cities worldwide -- ScienceDaily



China and India are among the leaders in terms of polluted cities - studies have shown that the levels of harmful emissions in many urban areas in these countries are sometimes hundreds of times higher than the allowed norm. As a result, inhabitants of these cities are much more likely to suffer from various respiratory and vascular diseases, adding an additional health aspect to the problem.

In some areas the issues are so prevalent that many people have decided to start wearing masks with filters that are supposed to protect them from the pollution.

"Global CO2 emissions 1980-2020 in billion tons (simplified)."



Global CO2 emissions 1980-2020 in billion tons (simplified) 2.² Globally, the population of big cities is increasing at rapid rates, and this tendency is even increasing further, showing no signs of slowing down. This further increases the difficulty of dealing with the problems described above.

² Why 2021 could be turning point for tackling climate change - BBC News



The Solution of EnviDa

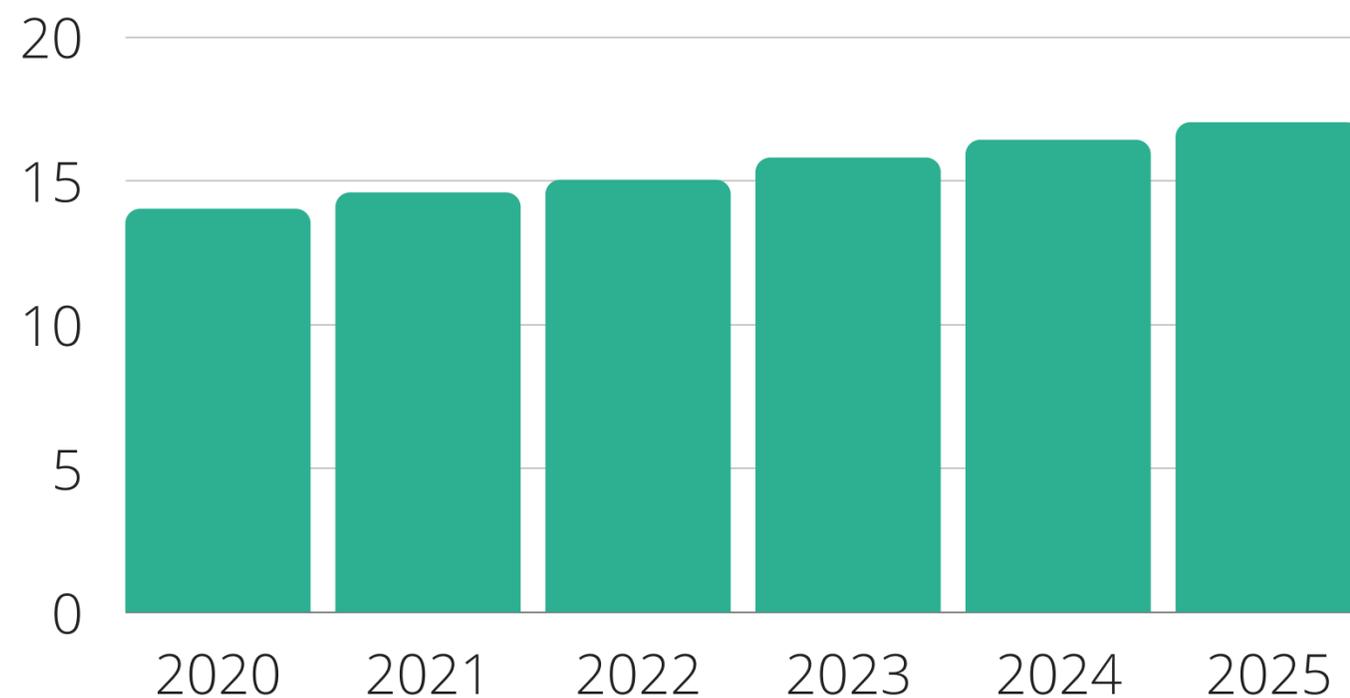
Governments have long started to explore different ways of keeping the environmental issues in check - encouraging the use of environmentally friendly ways of transportation (such as cycling and walking), the use of public transport, the introduction and support of electric vehicles, and many others.

However, one major problem remains, and that is the situation in low-income and developing countries, where the shift towards a more environmentally friendly means of transportation is faced with additional challenges.



2. Environmental Tracking Devices

The environmental monitoring market is estimated to grow at a CAGR of 4.1% to reach USD 17.10 billion by 2025 from USD 14.0 billion in 2020.³



Environmental tracking devices, such as detectors for CO2 and other harmful emissions, as well as their implementation within the urban landscape, are not an innovation. With the emergence of blockchain technology, the door to a whole new world of additional possibilities related to these devices was opened.

The technology presented many economically viable ways of tracking, storing, and analyzing environmental data. Software integration, albeit complex, was made possible. But there are a lot of issues that are not already solved yet:

³ *Environmental Monitoring Market - Global Forecast to 2025 | MarketsandMarkets*



PROBLEM

The measurement of air quality values is currently mainly stationary. Thus, only small areas can be monitored and evaluated at anyone time.

SOLUTION

Cabs or delivery trucks drive in large cities 24/7 in the entire urban area. Equipped with sensors, a very large area can thus be monitored.

PROBLEM

There is no financial incentive for independent participants to collect, secure, and share environmental data.

SOLUTION

Entrepreneurs can increase their income by mining EnviDa Token with a DriveMiner while collecting environmental Data.

PROBLEM

Due to different measurement methods, regulations and interests in different countries, there are hardly any uniform environmental data that can be independently evaluated and compared with each other.

SOLUTION

Environmental Data from different cities of different countries will independent be measured and secured in one blockchain.

The Solution of EnviDa

Our EnviDa project is aiming to solve exactly this challenge. We use our innovated mobile mining rig, called DriveMiner, which can be installed in electrical or semi-electrical vehicles of companies which have a great fleet of cars and have a long-running time per day, i. e. cabs, transportation companies, busses, etc.

Our DriveMiner is an independent, multifunctional, and mobile computer with a wide range of connectivity options and its own Internet access. As such, it enables a wide array of other functions that go beyond the area of mining. Most notably, with the integration of additional sensors, the DriveMiner can simultaneously record environmental data or certain particles in the air from hundreds of different locations within an urban area.

Some of the environmental data that can actually be captured by the DriveMiner is:

- CO2 levels
- Fine dust and other particles
- Temperature

On-demand it can be expanded to other types of data like

- Toxic substances and chemicals produced by the industry and manufacturing (including pesticides)
- Radiation intensity
- Optical analyses of the environment



The Solution of EnviDa

With a higher number of installed rigs in the medium-term, the collection of environmental data becomes possible, and EnviDa will establish an excellent database with historic and actual data. We are planning to enable the storage of this data on a blockchain.

The collection and utilization of environmental data on an immutable ledger are of manifold benefit - this would enable reliable monitoring of pollutants to be carried out by environmental authorities or NGOs.

According to EEA (European Environment Agency), the European Commission embraces blockchain technology, in the context of the design and implementation of preventive environmental practices.

It acknowledges that blockchain will be ‘transformative for the decades to come and it, therefore ‘aims at positioning Europe at the forefront of blockchain innovation and uptake’. However, at present, “the environmental and sustainability implications of blockchain remain insufficiently analyzed”.

One of the major obstacles is the high energy consumption of the consensus mechanisms, like PoW, and the lacking reliability of another consensus, like PoS, in terms of network security and integrity.



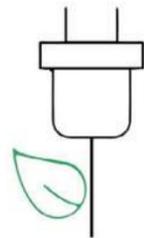
“the environmental and sustainability implications of blockchain remain insufficiently analyzed”.



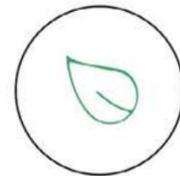
The Solution of EnviDa

Our DriveMiner tackles exactly these issues, by embracing a more energy-efficient methodology, through the use of a power-saving algorithm and the characteristics of our mining rigs. The project allows for PoW mining that minimizes the effects of its disadvantages, such as high energy consumption. The ability to install environmental data trackers on the DriveMiner is a revolutionary concept.

We arrived at this decision after concluding that the energy usage of the DriveMiner was low enough to have unused power left that can be utilized in a different manner.



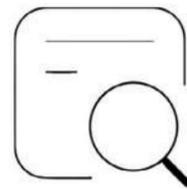
Design
Sustainability
Practices



Environmental
Data Tracking



Compliance
with Treaties



Transparent
Reporting

The aspect of mobility presented the opportunity to track emissions simultaneously, at multiple locations, at the same time. With the adoption of DriveMiner in different geographical locations and by both national and transnational transportation companies, we can get access to a constant flow of information.

We are already testing this functionality — there are currently 20 DriveMiner prototypes, installed in cabs, on the streets of Berlin, that are measuring and sending CO2 values, while mining different cryptocurrencies.

Most importantly, blockchain allows for the secure and tamper-proof exchange of environmental data across multiple entities. Here are some use cases of this data in the context of DriveMiner.



2.1 DESIGN SUSTAINABILITY PRACTICES

Collecting data is the key towards identifying problematic regions, designing new environmental practices, and, last but not least, tracking the effects of the new practices and arriving at meaningful conclusions on their effectiveness.

EnviDa enables exactly that. The core target group is companies that have vehicles constantly on the move. They offer the best possible means of collecting environmental data, as they can cover multiple locations 24/7. This data can then be stored securely on the blockchain and later be analyzed.

2.2 COMPLIANCE

Environmental treaties — like the Paris agreement signed between worldwide industry leaders in 2016 to reduce the carbon footprint and prevent global warming — are an essential way to align everyone's interests, in terms of climate change prevention.

However, most countries are failing to meet their targets — some by a large margin. Furthermore, lobbying parties in certain countries are using their power to further reduce the effects of these treaties.



The Solution of EnviDa

Environmental tracking with EnviDa can give a real-time representation of the progress of any country, as long as there are enough units in vehicles, working on the road. In addition, this data cannot be tempered, meaning that certain parties are not able to manipulate it in their interest. The higher the adoption of DriveMiner, the greater the amount of data collected and the lesser the chance of fraud, in terms of faulty reports.



3. Source Of Income With EnviDa

Collecting environmental data can become an additional source of income for miners. With the new regulations and treaties concerning climate change and environmental stability, the value of such data is greatly increasing.

This data can easily be traded via blockchain applications, to be used by governments and environmental organizations. Especially, the core B2B target group — transportation companies — are directly affected by environmental regulations and have to adopt certain practices that might be interfering with their current operations.

This application can yield significant revenue, as they have the potential to collect enormous amounts of various environmental data over a prolonged period of time, and thus, diminish the negative effects on the bottom-line financial performance, caused by the additional requirements these companies have to comply with.

To get access to the environmental data of EnviDa, interested parties have to buy the EnviDa-Token (EDAT). The Miner, which collects the data and validates transactions into the EnviDa-Blockchain will get EnviDa-Token as a reward for their work.



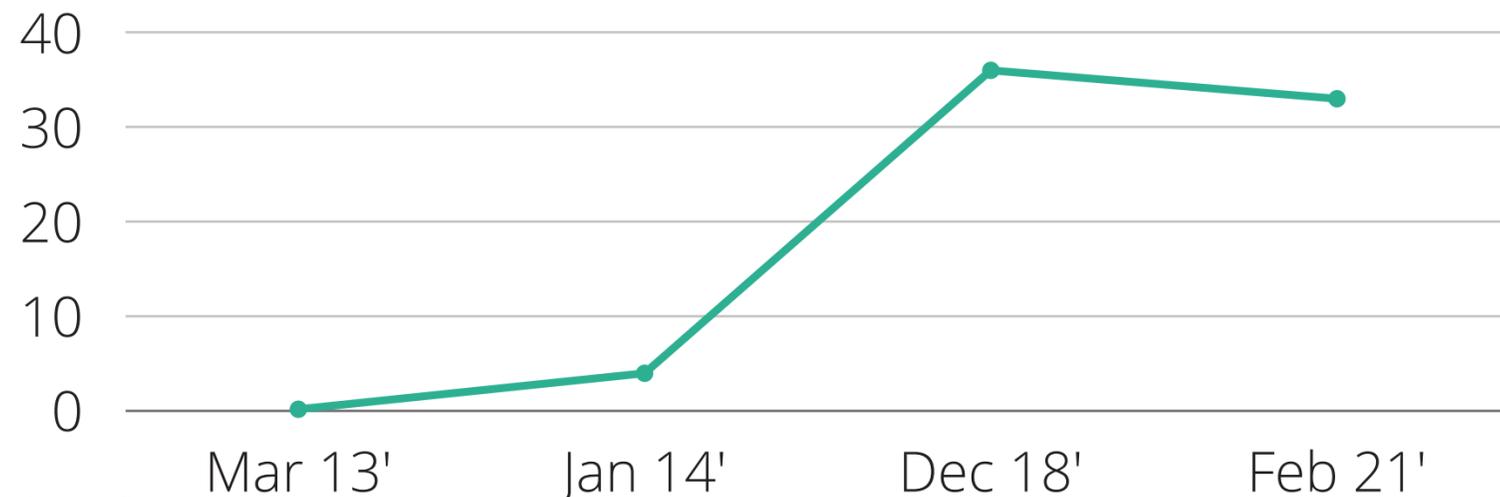
Crypto Mining Background



1. The Mining of Cryptocurrencies

Cryptocurrency mining has greatly increased in popularity over the last 7 to 8 years.

"From mere 1 million revenue generated in 2013 per month, mining set a record in 2021 by achieving 50 million U.S. dollars of revenue mined in a single day."



Revenue raised from cryptocurrency mining worldwide from January 2009 to February 15, 2021 (simplified). The revenue is also a function of the price of cryptocurrencies. Source: Statista

While mining might look very profitable on the outside, there is one aspect that has to be taken into account, when we are analyzing the numbers. The revenue and profitability are greatly influenced by the price of the mined cryptocurrencies — this means that, although the overall profitability has increased multifold, we cannot conclude that mining is developing positively. To do that, we will have to keep the price of the mined cryptocurrencies constant. Let's take the two biggest price surges of the most mined cryptocurrency — Bitcoin — and compare the mining profitability, based on the price levels.



Crypto Mining Background

The price of BTC is the perfect criterion, as it is positively correlated to the price of many other mineable cryptocurrencies.

In December 2017 the price of BTC reached around \$18.6K USD. The revenue mined around that time was around 36 million USD for a given period of time. In February 2021, the price of BTC raised to the whopping \$55K USD — about 3 times more than in December 2017.

Based on that, and the data presented above, the mining profitability should have also increased 3 times, right? Well, not exactly — the profitability has actually declined — to about 33 million USD to be exact. This means that the bottom-line mining profitability is getting worse. The BTC halving in May 2020 is one of the factors contributing towards this reality —

since then, miners are rewarded with 6.25 BTC for a new block rather than 12.5.

However, the decline cannot be fully explained just by the halving, suggesting that the design of the Bitcoin network (non-linear increase in mining difficulty and costs with each new block added to the ecosystem) is taking its toll on the miner profitability.



2. The Cost of Mining

Bitcoin mining is an investment, weighing the cost of energy and hardware against the expected returns.

Mining pools, or groups of miners, tend to be located in regions where electricity is inexpensive. These miners also follow different virtual currencies, mining the cryptocurrency that they expect will have the highest return.

It is a well-known fact that mining is expensive. Not only does it require high-end hardware that can easily cost in the tens of thousands - it also consumes a tremendous amount of energy. As BBC reports, mining bitcoin consumes 'more electricity than Argentina'. Additionally, with a bitcoin halving occurring every four years, the rewards for miners are also reduced.

Initially, the number of Bitcoins a miner received for solving a hash was 50. In 2012, this number was halved and the reward became 25. In 2016, it halved again to 12.5. In May 2020, the reward halved once again to 6.25, which is now the current reward. The difficulty of mining has also increased- and by a mind-blowing margin. When bitcoin was first launched, the difficulty of mining one block was 1. As of May 2020, it is more than 16 trillion.

The price of mining hardware has skyrocketed — while at the beginning a decent PC was enough to mine 50 BTC on a regular basis, today, the situation is entirely different. From CPU mining it transitioned to GPU mining, due to the much higher computing power of graphic cards.



GPUs were so popular for cryptocurrency mining that from Q2 2017 there were reported stock shortages and price hikes. This wasn't the first time GPU prices went up due to mining — the price of AMD Radeon cards were significantly inflated in 2013 already.

According to ZDNet, three million GPUs were purchased in 2017 alone (\$776 million).

Assuming a profit of 1BTC/d and a 30% increase in difficulty, the profit of miners would decrease by approximately 23 percent.



As a result, companies had started to mine Bitcoin in a considerable amount to make a profit, leaving out smaller miners. It is evident that mining has become much more difficult for traditional home miners.

The consequences of this are evident - the larger share of mining is done by large mining pools, most of which are located in areas with very low prices of electricity and property such as Asia.

This results in the dangerous tendency of centralization instead of the desired decentralization in mining, putting the advent of digitization 4.0 in danger, which is greatly underpinned by immutable ledgers, such as blockchains.

Problems at a glance:

PROBLEM

Mining is becoming more complex and less accessible, while the average miner profitability is drastically declining. Certain regions with low prices of electricity and property are increasing their market share, which will eventually lead to mining becoming centralized, ultimately underpinning the basic premise of blockchain technology and its vision.

PROBLEM

Existing mining rigs are not efficient enough — they are loud and consume a lot of energy.

PROBLEM

Earning income through mining has become a savage race, forcing the big majority of small and medium miners to drop off. Furthermore, from the perspective of businesses, it is only available to companies with the suitable infrastructure (hardware, space, access to low cost energy).

PROBLEM

Mining cryptocurrencies is super complex, which acts as a considerable entry barrier for people, who are not versed in cryptocurrencies.

The Solution of Mining



The Solution of Mining

Energy-Efficient
Easily Accessible

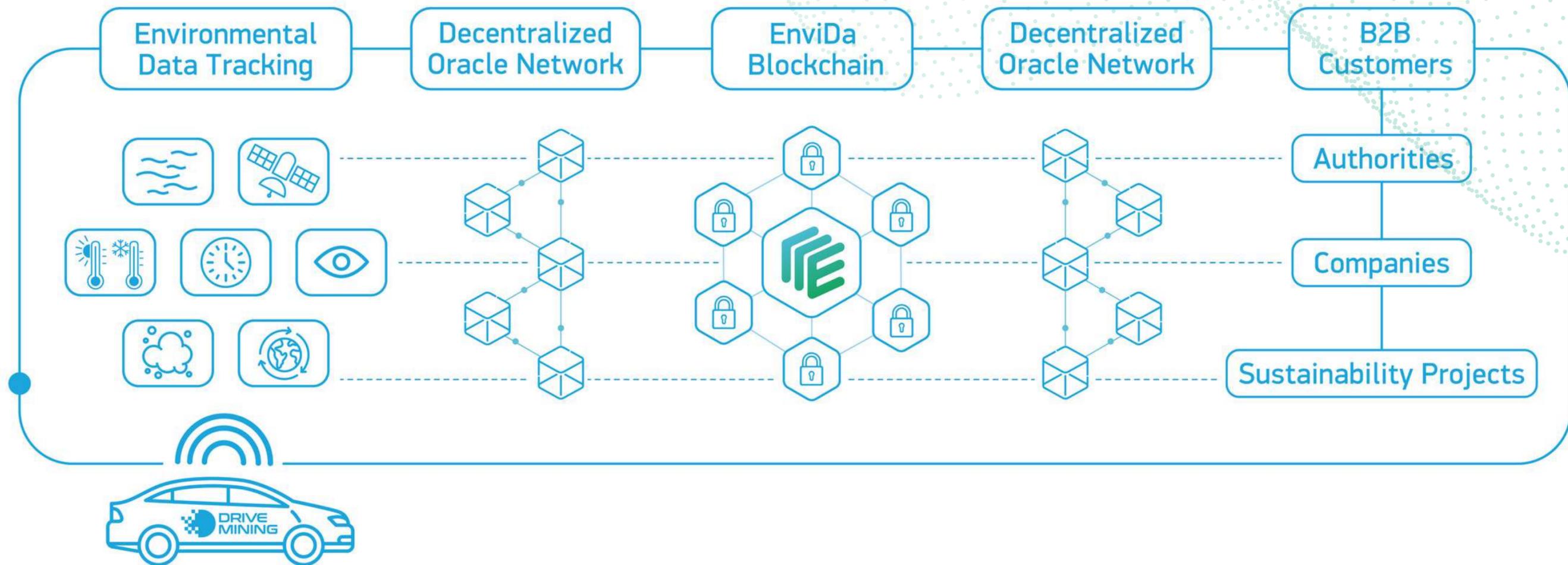
The vision of DriveMining & EnviDa is to enable energy-efficient and easily accessible mining that prevents monopolization and centralization, through a new generation of different mining rigs that can be installed in electric and semi-electric vehicles, as well as operating from home.

The DriveMiner model is also designed to act as an IoT-Device (Internet of the Things) for collecting simultaneously environmental data from multiple instances. The captured off-chain data will be stored and transferred in real-time by using a tamperproof oracle network service, for storing that synchronous onchain in our EnviDa Blockchain.

The EnviDa project has diverse application scenarios and potential target groups.



The Solution of Mining



The Solution of Mining

The DriveMiner particularly targets B2B companies, such as providers of transportation services (logistic, taxi companies, etc.), by allowing them to generate passive income without the need for any additional infrastructure investments that are otherwise required in building mining farms.

What is more, with the increasing adoption of blockchain technology and of electric vehicles, this target group could potentially expand to larger transportation companies (railway, public transport, and many others).

The aspect of environmental tracking further adds multiple other stakeholder groups in the B2B segment that further increases the potential of the DriveMiner.

In cryptocurrency mining, anyone looking to make a profit from mining cryptocurrencies must work to maximize their hash rate, while minimizing power draw.

The EDAT token, underpinning the ecosystem, utilizes a PoW mode of operation and can be mined exclusively with our DriveMiner. The EDAT token is the essence of the EnviDa Ecosystem. The Token Launch of EDAT will be based on the Polygon Chain. During the progress of this project, we will create our own blockchain, where all miners secure the collected environmental Data and its transactions.

According to ‘ProofofWork’ Mining, they will earn EnviDa-Token as a reward, identical to the Bitcoin model.



The Solution of Mining

The full supply is thus not minted - only the initial supply of 25% is created at the beginning, where 8% will be sold in the ICO with the purpose of financing the hardware and operations of the EnviDa ecosystem.

75 % of the total token amount will be allocated to the miners through a proof of work mechanism on our blockchain.

We create an ecosystem that will be a symbiosis between two industries: tamper-proof environmental monitoring and tracking and resource-efficient cryptocurrency mining — both of which are reinforcing each other's potential. The decentralized ecosystem is powered by a large community of mobile miners — a self-empowering network that delivers more value to all participants with more miners joining it.

Another advantage of globally decentralized mobile miners is that accidents, fires, technical defects, and any other disasters do not put the whole investment in jeopardy, unlike traditional mining farms.

Any loss of data or technical damage only affects individual devices and thus has no significant impact on the profitability of the investors and the operations of the project.



PROBLEM

Problem Lack of a sustainable solutions to the pressing issue with pollution. Especially in big cities, the increasing levels of harmful emissions are resulting in environmental and health hazards. Despite the potential of blockchain technology in terms of environmental data tracking, its advantages are not utilized to the fullest extent.

Mass adoption of real- time environmental tracking through multiple data points could be a potential solution to keeping the negative impact on the environment in check. However, we have yet to see a widespread adoption of such a solution.

SOLUTION

EnviDa essentially creates an interconnected network of multiple devices that can simultaneously collect and store any environmental data securely on the blockchain, through the DriveMiner box, all while generating passive income through mining.

The synergy effects of the two concepts of mobility and environmental tracking are at hand - by regularly covering a considerable distance, both nationally and internationally, as well as capturing environmental data. At the same time, through multiple instances, we can acquire a large amount of valuable information. This data can then be used by state and private organizations, as well as companies working on reducing the environmental impact, providers of statistical data and many other stakeholders, including large manufacturers and electricity providers, to name a few.

PROBLEM

Increasing competition and difficulty in mining with an overall declining mining profitability.

SOLUTION

EnviDa opens the door to efficient and passive mining at a low cost for a wide array of target groups - from companies to individual home miners. The project enables companies to participate in the cryptocurrency market without any capital intensive investments. A DriveMiner is installed in an already existing car and generates additional revenue for the company, even when the car is stationary or empty. It uses the existing assets of the company, does not require any additional investments and carries much lower risk, compared to traditional mining farms, due to the fragmentation of the mining units.

PROBLEM

Clunkiness and lack of flexibility in current mining infrastructure. It can only be installed in a designated space, which then remains reserved only for mining purposes due to the low temperature required to sustain the hardware over time and the high noise output. Larger mining farms require high investments and are vulnerable to sabotage and disasters.

SOLUTION

The DriveMiner is the first mining rig that can be installed in electric and semi-electric vehicles that have sufficient generating power and electricity storage capacity. Its primary advantage is that it allows companies, in the segments transportation, logistics, deliveries and shared transportation services, to set up their own mining pools without any capital-intensive investments. In addition, these companies can participate in environmental data tracking, essentially turning them into a solution to a problem they are considered part of.

Why POW and short comparison between consensus:

PoW (Proof-of-Work) is the most famous consensus mechanism and the underpinning technology behind Bitcoin mining and block validation. However, PoW has been criticized for being too resource-heavy and far from efficient enough to see widespread adoption.

As a result, many different consensus mechanisms have emerged over the last decade, each of which attempts to reach the same goal as PoW but in a better or a completely different way. We have provided a short comparison between some of the current most prominent blockchain consensus.

Albeit not exhaustive, the list focuses on the most famous coins like Bitcoin, Ethereum, and Co and their consensus mechanisms. Keep in mind that there are also further combinations (also known as “hybrid”) - for example, DASH is a combination between PoW (Proof of Work) and PoSe (Proof of Service). We will not go into too much detail about what each consensus does instead, we have created a comparison table, which should serve as a guideline for the advantages and the disadvantages of most consensus mechanisms. Despite the common belief that PoW holds no ground compared to PoS, for example, each of these has their own advantages and disadvantages.

With our project, we are attempting to address the main pain points of PoW, which would put it in a better position, compared to its competitors.



The Solution of Mining

| | PoW (Proof of Work) | PoS (Proof of Stake) | DPoS (Delegated POS) | PoA (Proof of Authority) |
|--------------------|-------------------------------|--------------------------------|--------------------------------|------------------------------------|
| Energy consumption | Very High | Low | Very Low | Very Low |
| Security | Very High | Moderate | Moderate | Very Low |
| Mining Difficulty | Very High | Moderate | Moderate | Low |
| Scalability | Moderate | Good | Good | Very Good |

While the table above is highly simplified, it shows several important aspects that raise the discussion of whether the PoW consensus is really inferior to its successors.

s. Indeed, in terms of energy consumption and mining difficulty/accessibility, PoW does not rank well - however, at arguably the most important factor - security - Proof of Work is still unmatched.

PoS networks are more easily susceptible to uneven distribution, monopolies, and other game theorist concerns, which can potentially hurt the network integrity.

EnviDa implements the traditional PoW in the context of environmental efficiency. We will use a power-saving algorithm which is provenly among the most energy-efficient algorithms for mining. The DriveMiner series is focusing on providing steady output without consuming too much energy — the DriveMiner is intended to be installed in electric vehicles and to have a minimal amount of energy consumption. Also, only DriveMiner with attached environmental data sensors will be allowed to mine the EnviDa-Token. This will prevent any kind of big mining farms, which increase the mining difficulty and thus the energy costs.



Past Progress



The first prototype of the DriveMiner was developed in 2019 and was presented at the Frankfurt Trade Fair in October of the same year. That prototype was tailored to the most frequently used hybrid vehicles by taxi companies. The power-saving hashboard, which is exclusively manufactured for DriveMiner, was successfully integrated into the hybrid circuit of the vehicle.

DriveMiner is programmable to offer the possibility to work with different coin algorithms via remote maintenance, offering a high degree of flexibility and assuring that there are always multiple use cases for its owner. Currently, there are 200 closed contracts for modification of hybrid-electric vehicles with the DriveMiner, with additional 1800 vehicles currently in negotiation. The DriveMiner is based on patented technology, for which DriveMining GmbH & Co. KG is the only patent holder.



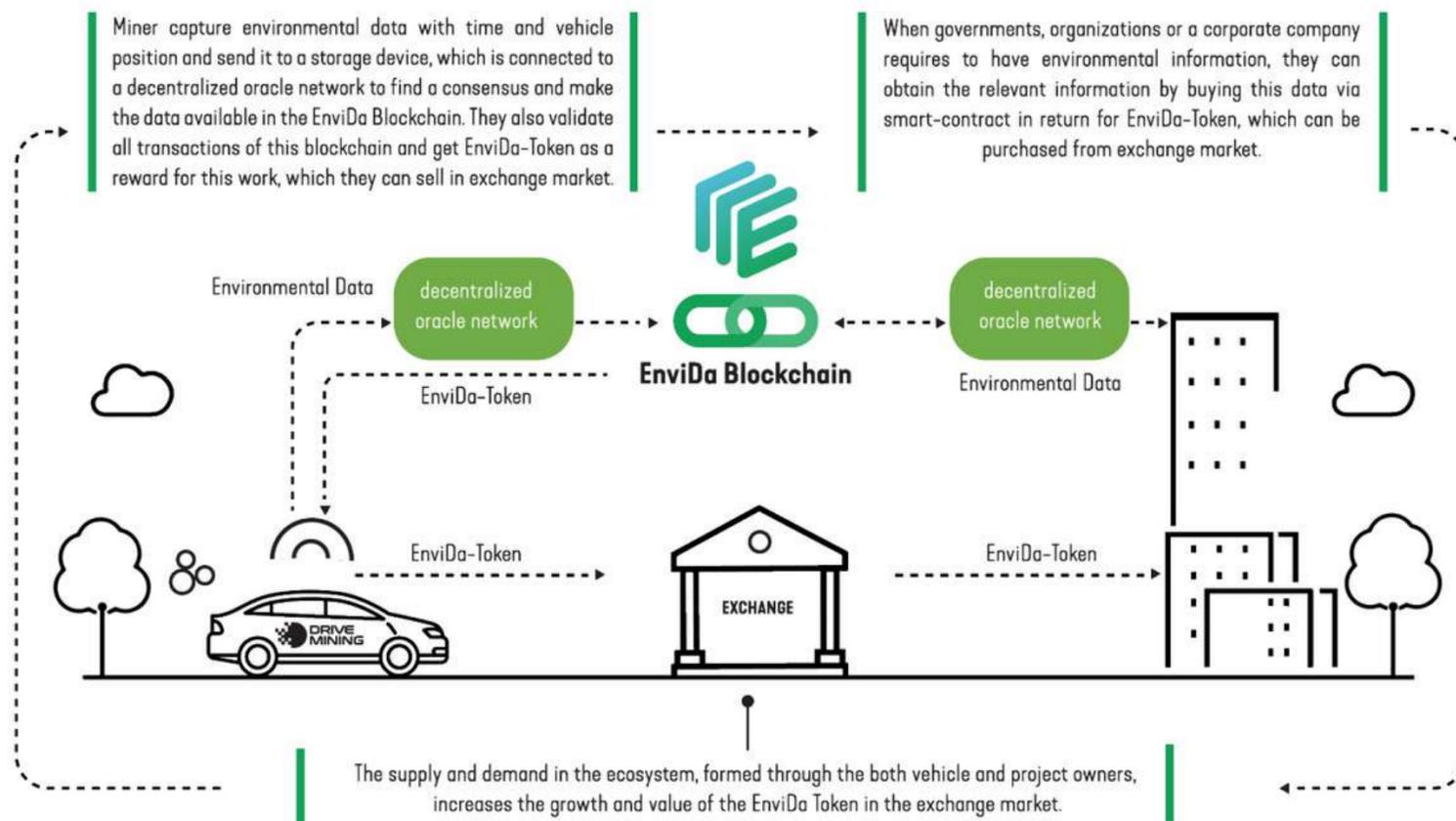
Germany, Frankfurt



The DriveMiner



Past Progress



The purpose of mobile mining technology is to give those primarily passenger transportation companies access to the value chain of the crypto sector, without having to invest in additional infrastructure (buildings, power lines, personnel, etc.).

The crypto-mining technology is only profitable if it is operated as continuously as possible. This applies to use-cases, such as an average cab, which operates in shifts for more than 16 hours a day. The current DriveMiner box was also designed for installation and operation in some of the most popular automobiles used by passenger transportation companies.

However, the DriveMiner box can be installed in any type of electric vehicle — buses, any railway transportation, such as trams and trains, ships, trucks, and any other e- powered transportation method.



Past Progress

This assures that the possible application scenarios of DriveMiner are highly diversified and can appeal to a wide array of transportation providers - both international and domestic logistic companies, providers of public transportation services using electric vehicles, shared transportation services, and many others.

The first generation of DriveMiner is currently in the first pre-series. The main components of the DriveMiner are:

- Stable aluminum housing (self-development) FPGA hashboard
- Control Board
- Micro Computer (Raspberry Pi)
- Water pump with self-developed water cooler
- Radiators (installed under the bumper)

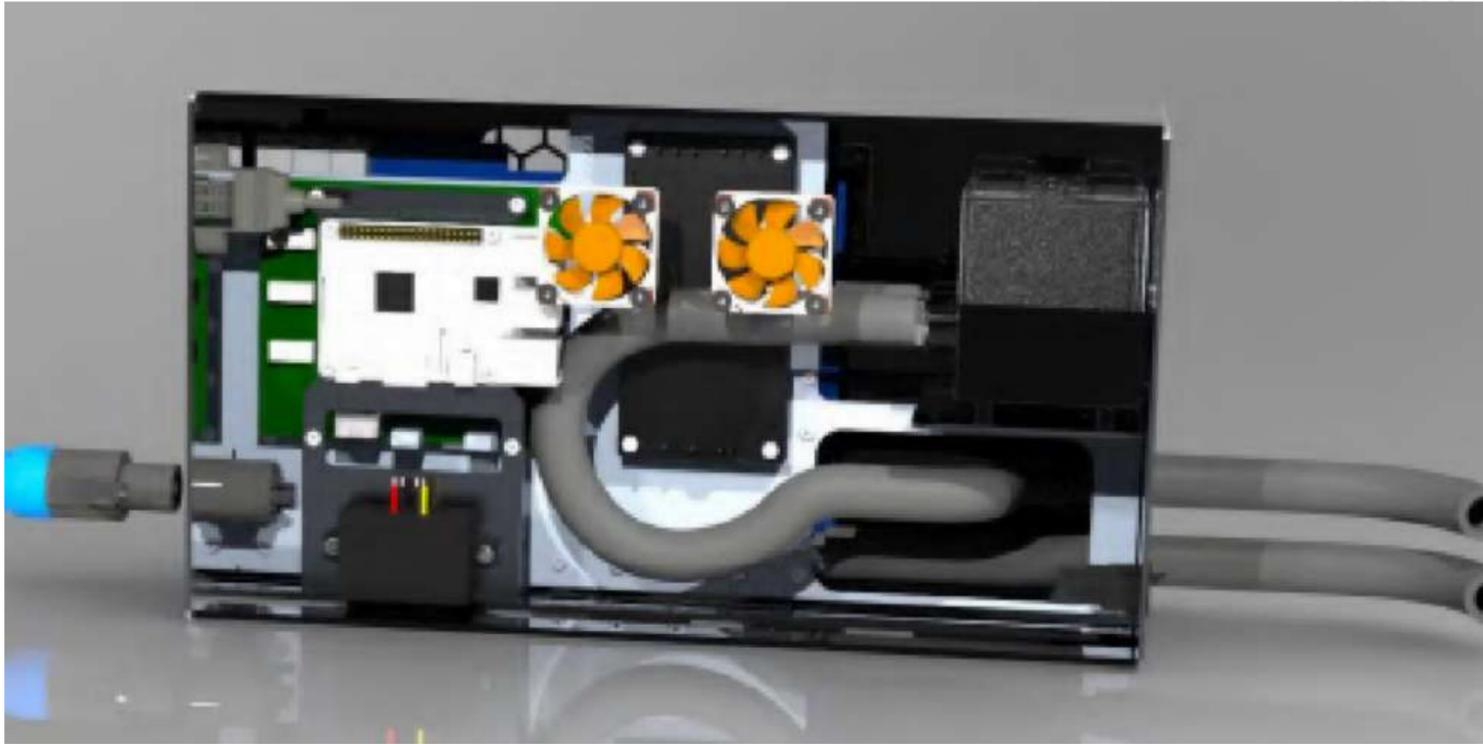


The DriveMiner prototype

The combination of these components, as well as the intended use as a mobile crypto mining device, is patented.

The LTE stick helps to establish a constant Internet connection to the miner, so that constant monitoring is possible. It will support 5G for superior bandwidth and real-time monitoring without data loss





DriveMiner series model (CAD rendering)

Additionally, the miner can be remotely be programmed to perform according to the most profitable algorithms via remote maintenance. The technology has now been tested for 18 months in an initial prototype and for 10 months in 20 additional prototypes.

The production-ready version, developed from the findings from the prototype operating phase, is currently in pre-production with the first batch of 100 units.

Technical Specs for The DriveMiner

| COIN | ALGORITHMUS | HASHRATE |
|-------------|--------------------|------------------|
| 0xbtc | SHA3Solidity | 15,75 GH/s(±15%) |
| VEO | SHA-256 | 29,47 GH/s(±15%) |
| TRB | Tellor | 5,75 GH/s(±15%) |
| AEON | K12 | 75.76 GH/s(±15%) |
| ZP | SHA-3 | 16,02 GH/s(±15%) |
| DGB | Odocrypt | 3,79 GH/s(±15%) |
| PMEER | qitmeer-keccak256 | 16,67 GH/s(±15%) |
| KDA | Blake2S | 38,90 GH/s(±15%) |
| NXS | NexusHash | 1,41 GH/s(±15%) |
| EDAT | - | - |



Mining of EnviDa-Token

Technical Specs for the DriveMiner

The EnviDa-Token, underpinning the ecosystem, utilizes a PoW mode of operation and can be mined. Based on our experience with mobile mining via FPGA-chip technologies we will choose a tailor-made, energy-efficient algorithm for our PoW-Consensus to keep the energy consumption at a low level.

The EDAT token can be mined only with the DriveMiner connected to environmental data tracking sensors. While ASIC miners are supposedly better than any of their predecessors, this assumption is actually untrue, when it comes to different application scenarios.

Let us take a look at the differences between the two and see why FPGA is superior to ASIC for the implementation of the DriveMiner ecosystem. FPGA stands for Field Programmable Gate Array. As the name suggests, FPGA boards can be individually programmed (field programmable), making them superior to any other form of mining, in terms of the flexibility they offer, which is also one of their core advantages.

ASIC stands for Application-Specific Integrated Circuit. Again, as the name suggests, they are application-specific and thus have limited application options, when compared to FPGA miners. While they can reach higher overall performance, due to their improved operating frequency, they have several shortcomings compared to FPGA boards.



Mining of EnviDa-Token

| | ASICS | FPGA |
|---------------------|--------------|-------------|
| Programmability | Limited | Very High |
| Learning curve | Steep | Moderate |
| Costs | High | Low |
| Mining variety | Limited | Very High |
| Operating frequency | High | Moderate |

One of the most important characteristics of FPGA boards is their programmability — the flexibility in terms of what use case scenarios they can be adjusted.

Unlike ASIC, they can be programmed to fulfill other functions, which is the core philosophy behind the EnviDa project - to enable simultaneous, flexible mining of multiple coins and environmental data, captured at the same time.

Something that is not possible with ASIC miners. They are also cheaper to implement, allowing us to tune down the cost for an individual DriveMiner. Furthermore, FPGA boards can be programmed to mine through multiple algorithms and can be easily upgraded.

As we can see, in the context of the EnviDa project, ASIC exceeds FPGA only in terms of the operating frequency. However, with their technical characteristics, FPGA boards offer the perfect conditions for the EnviDa concept, which relies mostly on the programmability, cost-effectiveness, and overall efficiency of the technical infrastructure.



Token



Token

The main purpose of the EDAT utility token is to fuel a project that will create a combination of crypto-mining and environmental control. The proceedings raised by the token sale are intended to secure the financial needs of the project for hardware and operations. The EDAT token can be used for the purchase of DriveMiner and EnvironmentalData Transactions, hence its classification as a Utility token.

To secure the liquidity of the EnviDa ecosystem, we will implement a system preventing any extreme speculation that might cause dangerous levels of volatility in the price of the EDAT token. This step is essential in order to secure the unobstructed development of the ecosystem.

90% of the EDAT tokens acquired during the seed round at a 0,25€ per token will be frozen for 20 months, with the remaining 10% freely tradable on exchanges.

90% of the EDAT tokens acquired during the private sale at a 0,50€ per token will be frozen for 24 months, with the remaining 10% freely tradable on exchanges.

85% of the EDAT tokens acquired during the pre-sale sale at 0,75€ per token will be frozen for 18 months, with the remaining 15% freely tradable on exchanges.

80% of the EDAT tokens acquired during the main sale at 1€ per token will be frozen for 12 months, with the remaining 20% freely tradable on exchanges.

0,25€

For 20 months:

90% of the bought tokens are frozen, the remaining 10% can be sold at exchanges

0,50€

For 24 months:

90% of the bought tokens are frozen, the remaining 10% can be sold at exchanges

0,75€

For 18 months:

85% of the bought tokens are frozen, the remaining 15% can be sold at exchanges

1€

For 12 months:

80% of the bought tokens are frozen, the remaining 20% can be sold at exchanges



Token Sale



The EDAT-Token is a utility token released on the Polygon-Chain. The Token Standard will be an ERC-20. To realize a PoW-Consensus it will be swapped to the EnviDa-Blockchain, after its development.

1. General Terms for The ICO

Token Name: EnviDa-Token (EDAT)

Total Supply: 200.000.000 EDAT

Total for Sales: 16.000.000 EDAT

Total Hard Cap: 13.195.000 €

Payment Methods: BTC, ETH, USDT, Bank

Seed-Round

1M EDAT tokens at 0,25 €

Dates: 01.09.21-14.09.21

Hard Cap: 250.000 €

Discount: 75%

Private-Sale

3M EDAT tokens at 0,50 €

Dates: 01.12.21-31.12.21

Hard Cap: 1.500.000 €

Discount: 50%

Pre-Sale

2M EDAT tokens at 0,75 €

Dates: 01.01.22-31.01.22

Hard Cap: 1.500.000 €

Discount: 25%

Main-Sale

10M EDAT tokens at 1 €

Dates: 01.03.22-31.03.22

Hard Cap: 10.000.000 €



Token Sale

Participants will have to undergo the KYC procedure. Investments over \$15.000 are subject to AML laws. Moreover, certain restrictions might be applied for participants from various countries.

2. Token Listing

For our ecosystem to work, after developing the blockchain, we will have extensive testing and auditing by accredited institutions for stability and tamper resistance. (Token audit) After a positive evaluation, we will start negotiations with well-known crypto exchanges to list our token there.

2.1 TOKEN AND FUNDS DISTRIBUTION

The total amount of EnviDa-Token will be 200.000.000 EDAT and they will be distributed as follows:



The EnviDa token will first be deployed on the Polygon chain and swapped to our own blockchain during the course of this project, where miners and master nodes will validate the collected environmental data, and receive EnviDa tokens as rewards.



Proof of Work:

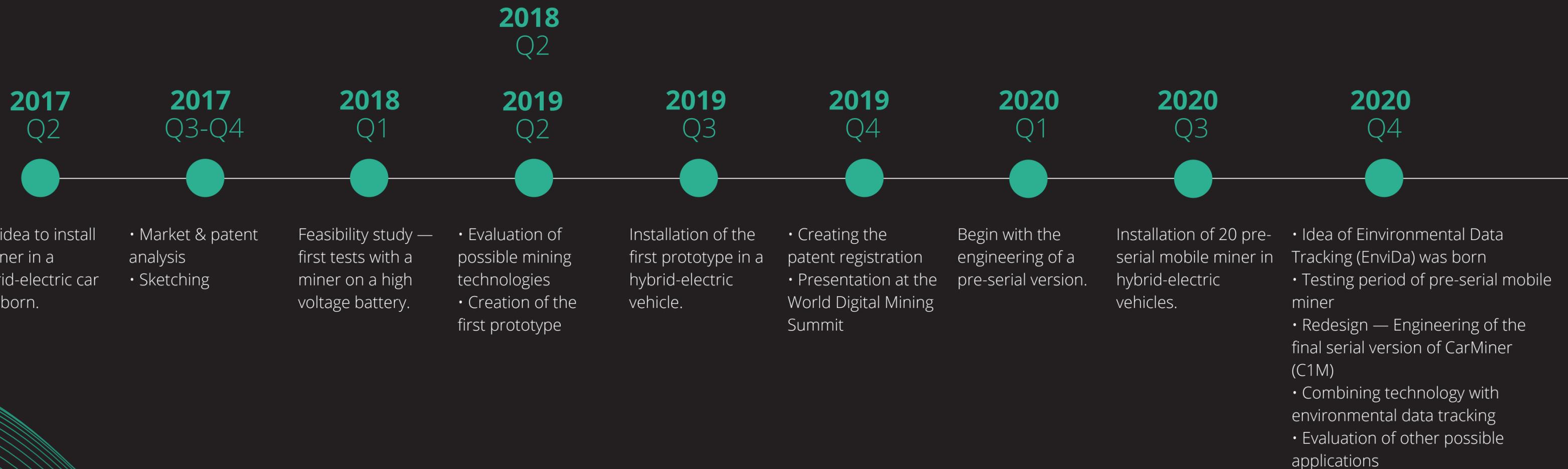
- Mining Rewards 75%-150M EDAT
- Token Sale 8%-16M EDAT
- Team 5%-10M EDAT
- Marketing 2,5%-5M EDAT
- Partnership & Investors 3,5%-7M EDAT
- Reserve & EnviDa Ecosystem 6%-12M EDAT

Token allocated to the team members will have a vesting period of 24 months.

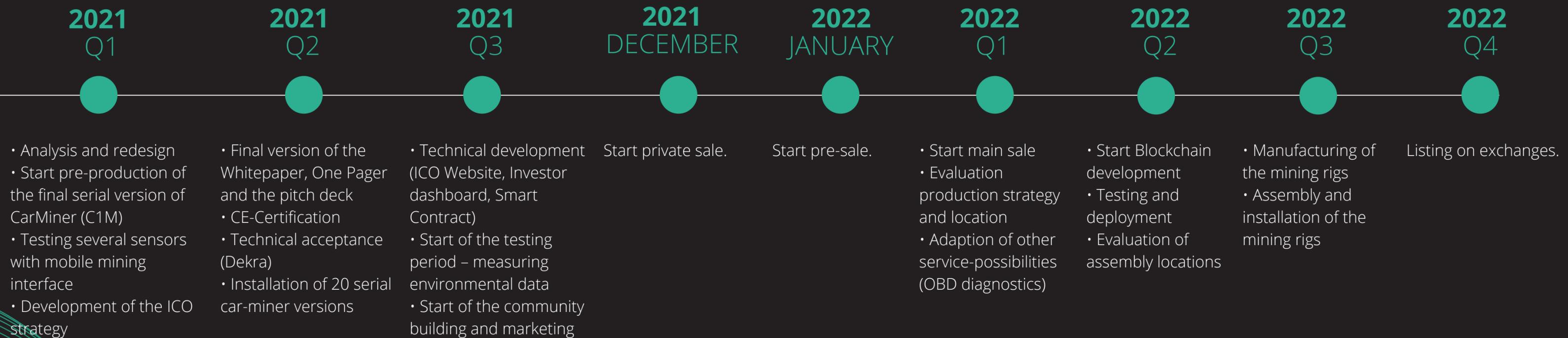
RoadMap



ROADMAP



ROADMAP



Initiator of EnviDa and DriveMining



1. Company

The initiator of DriveMining and EnviDa is the German, Berlin-based company DriveMining GmbH & Co. KG. It was founded on January 18, 2021, in Berlin Charlottenburg and has the commercial register number HRA 58407 B. The current company address is Lange Enden 29, GER - 13437 Berlin.

The business purpose is the development, production, installation, and distribution of so-called mobile mining equipment as well as auxiliary business for this purpose. Currently, the sole managing director is Mr. Hüseyin Uysal (CEO). DriveMining GmbH & Co. KG operates the two activities:



2. Core Competence

DriveMining's core competence is mobile crypto mining technology and crypto-mining data management. The special feature and the technical unique selling point of the self-developed and patented mobile crypto mining technology is the distribution of the computing capacity to many vehicles, which produce the required electricity themselves.

For this purpose, we have developed a ready-to-install box with the corresponding hardware, which can be operated autonomously and operated via its own Internet connection.

Our customers can acquire this box via purchase or a rental model. The sale and installation of this box as well as a monthly service fee for the optimization of the computing algorithm is part of DriveMining's offer.

Our installation staff is specially trained and qualified to work on high-voltage systems in the automotive sector. Additionally, the company intends to improve these systems and to launch worldwide. With the installation of the DriveMining box, there is an independent, multifunctional computer with a wide range of connection options and its own Internet access in the vehicle. Thanks to the implementation of various sensors, it is thus possible to record environmental data such as CO2 or fine dust content in the ambient air at hundreds of constantly changing measuring points within an urban area. It is planned to store this data immutably in its own blockchain, which in turn will be primarily calculated by the mobile DriveMiner's users. The sale of this environmental data to companies and/or authorities will then be done with the name EnviDa and become the second pillar of the business model of the mother company.



Patents



Patents

The DriveMining Technology is patented and belongs to Mr. Hüseyin Uysal. There is a german and a worldwide patent registration:

Covering the use of mobile mining activities in cars, buses, trains, and/ or ships and covering the technology to use mobile rigs for mining activities. And there's a utility model protection for collecting environmental data by using blockchain technology. Thus, both activities have high entry barriers for any competitor.



Team





Hüseyin Uysal

CEO & Founder (Blockchain Advisor)

Years of experience in setting up mining farms in Austria, Turkey, and Poland with a total of almost 1000 miners and rigs. The EnviDa project was funded due to successful reinvestment of the profit over several years in promising cryptocurrencies.



Michael Fischer

CTO

Product development & head of the production. Over 10 years of experience in polymer technologies, research, development, and production of aircraft interiors.



André Curdas

CPO

Over 25 years of experience in accounting, technical development, and sales



Mesut Tosun

Electrician & Expert HV Energy Storage. Extensive experience in installation and service. Expertise in EnviDa products





Ali Talay

Technical expert

Electrician & Expert HV Energy Storage. Extensive experience in installation and service. Expertise in EnviDa products.



David Richter

Business Consultant

Managing Director dhpG Berlin GmbH. Auditing / Tax consulting company. Consultant in the areas of business structures, taxes and financing.



Yasin Akbaba

Technical expert / Turkey

Electrician & Expert HV Energy Storage. Extensive experience in installation and service. Expertise in EnviDa products.



Anıl Çezik

Creative Director

Creative Director Since 2010, he has worked as an art director in many agencies and still continues to provide freelance creative consultancy to many brands.





Oliver Braatz

Tax Advisor

Möhrle Happ Luther in Hamburg. Auditing / Tax consulting company. Consultant in the areas of tax structuring and taxation of crypto currencies/token.



Dirk Grüneberg

COO

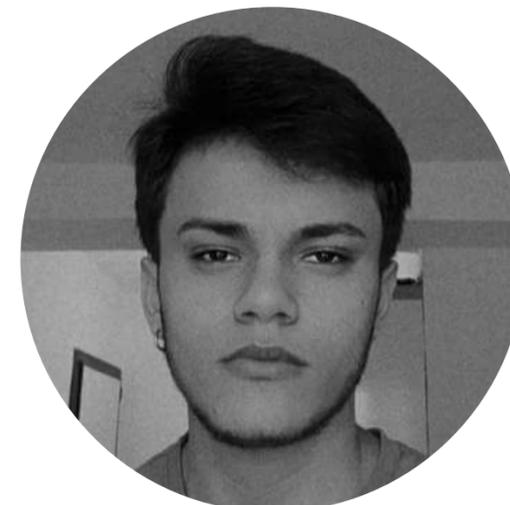
Technical management & head of technique Over 15 years of professional experience in the field of renewable energies as technical manager.



Furkan Karabulut

Turkey Community Management

Digital marketer, experience in content writing and managing social media accounts.



Ozan Mutluoğlu

Graphic designer

Designing creative content for social media and any other platforms.





Ali Isiyel

Global Community Management

After working as an editor in many private companies and as a copywriter in advertising agencies in Turkey, he now works as a global community manager at EnviDa.



Bahadır Şat

Global Community Management

Economist has worked in the marketing of international corporations on information technologies. Blockchain enthusiast.

Risks and Concerns



Risks of external attack

Unfortunately, scammers are very creative and inventive in their attempts to hack online websites of all kinds. Hackers are focused on finding and exploiting potential weaknesses. Attacks also extend to the open-source algorithms of smart contracts, which is why we must consider the risk of attempted hacking of our platform.



Regulatory risks of the blockchain industry

The regulatory situation around the blockchain industry still remains dynamic. Governments are in the process of studying blockchain technology, and some countries impose restrictions (for example, the United States, China, South Korea). New laws that might come into force in the future could significantly affect the activities of blockchain projects, including DriveMiner. We have to warn that such laws can significantly limit and even stop the project activity.



Financial risks

Contributions in cryptocurrency projects carry a big risk. EDAT tokens, like any other cryptocurrency, are subject to strong fluctuations and may decrease in value significantly. We are not responsible for any fluctuations in the value of the token on exchanges. We do not guarantee that there will be an opportunity to exchange EDAT tokens for traditional currencies. EDAT tokens can be used only within the EnviDa ecosystem; they do not grant you the right of voting or ownership in the EnviDa project.



Risk of future sales or issuance of Token

Future sales or issuance of EDAT could materially and adversely affect the market price of EDAT. Any future sale or issuance of EDAT would increase the supply of EDAT in the market and this may result in a downward price pressure on EDA





Risks Associated with Markets for Tokens

The Tokens are intended to be used solely within the EnviDaEcosystem. DriveMining will not support or otherwise facilitate any secondary trading or external valuation of Tokens. This restricts the contemplated avenues for using Tokens to the provision or receipt of Goods, and could therefore create illiquidity risk with respect to any Tokens you own. There is therefore a risk that the EDATs cannot be traded on a secondary market.



Risk of Uninsured Losses

Unlike bank accounts or accounts at some other financial institutions, Tokens are uninsured unless you specifically obtain private insurance to insure them. Thus, in the event of loss of the Token, loss of the private or public key to the token or loss of utility value, there is no public insurer, such as the Federal Deposit Insurance Corporation, or private insurance arranged by DriveMining, to offer recourse to you.



Risk of Insufficient Interest in the Ecosystem

It is possible that the EnviDa-Ecosystem will not be used by a large number of individuals, companies, and other entities or that there will be limited public interest in environmental data. Such a lack of use or interest could negatively impact the development of the Ecosystem and therefore the potential utility of the Tokens, including the utility of the Tokens for obtaining environmental data, drive miners (“goods”).



Risks Associated with the Development and Maintenance of the Ecosystem

The Ecosystem is still under development and may undergo significant changes over time. Although we intend for the Tokens and Ecosystem to function as described in the Whitepaper and intend to take commercially reasonable steps toward those ends, we may have to make changes to any timelines announced in the Whitepaper, on the Website, or any other official channel of DriveMining, or the specifications of the Tokens or Ecosystem for any number of legitimate reasons. This could create the risk that the Tokens or Ecosystem, as further developed and maintained, may not meet your expectations at the time of purchase.



Risk of Dissolution of DriveMining or the Ecosystem

It is possible that, due to any number of reasons, including, but not limited to, an unfavorable fluctuation in the value of ETH, BTC (or other cryptographic and fiat currencies), decrease in the Tokens' utility (including their utility for obtaining Goods), the failure of commercial relationships, intellectual property ownership challenges, insolvency, or the liquidation of DriveMining, the Ecosystem may no longer be viable to operate. The Participants may lose parts or all of their EDAT purchasing price.



