


# ENERGY COIN MARKET SDT<sub>1</sub>

RESEARCH AND DEVELOPMENT CENTRE  
FUTURE SOLUTIONS

**LAB  
ONE**

*The future is the color of hydrogen*

**WHITE PAPER**

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# Executive summary



You've probably heard a lot about renewable sources and how to obtain them, such as wind farms or PV power plants, but have you heard about using hydrogen? Renewables can't provide a constant supply of energy because the wind doesn't always blow and the sun doesn't always shine, but if we convert the surplus energy generated on windy or sunny days into hydrogen, this gas will act as a battery to store energy that we can use when supply from renewable sources is low or outstripped by demand.

Storing energy in hydrogen is vitally important for the development of the renewable energy market, and using it for storage can reduce costs and revolutionize the energy market. Hydrogen can inherently stabilize the fluctuating power outputs of renewable energy sources such as sun, water and wind, while having the ability to store huge amounts of electricity over days, weeks, months.

Currently, hydrogen technology mainly produces from methane. However, this solution generates relatively high CO<sub>2</sub> emissions. According to the International Energy Agency (IEA), around 70 million tons of hydrogen are currently used worldwide, mainly in oil refining and the chemical industry.

As the decarbonization process accelerates and the need to search for additional low-emission energy sources grows, the hydrogen production market will expand. Its value may triple by 2050, according to a report by consulting company BAIN & COMPANY. The growth of the market will be driven



by falling production costs and rising prices of CO<sub>2</sub> emission allowances as well as government subsidies for implementing hydrogen-based solutions. Technological development in this sector is already supported by the European Union, which has announced a hydrogen strategy for Europe, claiming that hydrogen is an important element of the solution to achieve the goal of climate neutrality by 2050. As part of the European green deal, it also wants to make the euro the global reference currency for hydrogen trade, just as the US dollar is the currency for oil. Iceland, due to its unique situation whereby electricity is cheaper than the price of hydrocarbons, has committed itself to becoming the world's first hydrogen economy by 2050.

In Poland, the government project "Polish hydrogen strategy until 2030 with an outlook until 2040" is currently up and running.

Therefore, we decided to establish LAB ONE unit, with the aim of working on broadly understood green energy and hydrogen technologies and the construction of distributed zero-emission energy based on energy clusters.





**The Future Solutions  
Research and Development  
Centre concept – LAB ONE**



## The LAB ONE concept in the ECM ecosystem

The ECM ecosystem is a modern, innovative distributed energy system consisting of zero-emission energy clusters based on hybrid generation from renewable energy sources, balancing and storage in green hydrogen, operating according to the latest IT solutions such as AI or blockchain. Future Solutions Research and Development Center decided to build a unique self-sufficient LAB ONE unit powered by clean energy from a zero-emission energy cluster operating on the principles of the ECM ecosystem. Its job will be to research and development work on the possibility of creating zero-emission solutions for the construction industry, optimize processes, automate billing and apply modern renewable energy technologies.

When designing LAB ONE, a full range of solutions that would produce energy in the office and laboratory building were considered. The surplus generated will be processed and stored in green hydrogen, which will be one of the commercial products. It will also power the unit when there is no renewable energy generation. An additional distribution option will be a SHES green hydrogen refueling station.

According to the concluded agreement, Future Solutions R&D Center LAB ONE will constitute a scientific unit for the entire energy system and, as a member in all clusters in the ECM ecosystem, will be responsible for their uninterrupted operation, optimization, and the digitization of processes. Thanks to this business model, LAB ONE will receive a certain amount of energy expressed as a digital token (EC).

Another incredible solution is how the unit will be financed - via the SDT<sub>1</sub> LAB ONE utility token. This helps digitally map the power and costs required to build a unit. The energy generated by LAB ONE will also be represented by the EC (Energy Coin) derivative token. The mechanics of the ECM ecosystem allow the user to produce and use energy differently than before. It will also enable energy to be produced anywhere in the world. SDT<sub>1</sub> LAB ONE will be listed on stock exchanges cooperating with ECM, so it may be traded and therefore benefit from future energy values.

To summarize, by tokenizing cluster-generated power as an SDT<sub>1</sub> LAB ONE token, the user receives the right to a free EC (Energy Coin) token air drop, which represents the energy generated. EC is based on a constant parity of 1EC = 1 kWh. The EC token in the ECM ecosystem can be exchanged for

products and services via the ECM/STORE mechanism. The user will also have the option of using the energy he or she produces in another location via the TRON Energy Exchange Platform. Another feature of the system is ECM/KANTOR, which enables energy to be exchanged into classic means of payment. Each cluster in the ECM ecosystem is based on renewable energy generation. Therefore, the LAB ONE unit will produce clean energy included in the ETS system (green certificates). After obtaining such certificates, the ECM ecosystem will also distribute them among SDT<sub>1</sub> LAB ONE token holders.

An important element influencing kW power production efficiency is cogeneration. Thanks to the technology applied in the cluster, two types of electricity and heat are produced from the available power. Both are measured in kWh and expressed as EC tokens.

A hybrid combination of renewable energy, hydrogen technology and the blockchain have all come together to construct a modern zero-emission energy cluster system, where LAB ONE is a key participant.

## 2.2.

### **LAB ONE cluster construction**

Future Solutions Research and Development Center was founded on 13 April 2022 as a limited liability company. The tax jurisdiction is Poland. The company is based in Gdańsk.

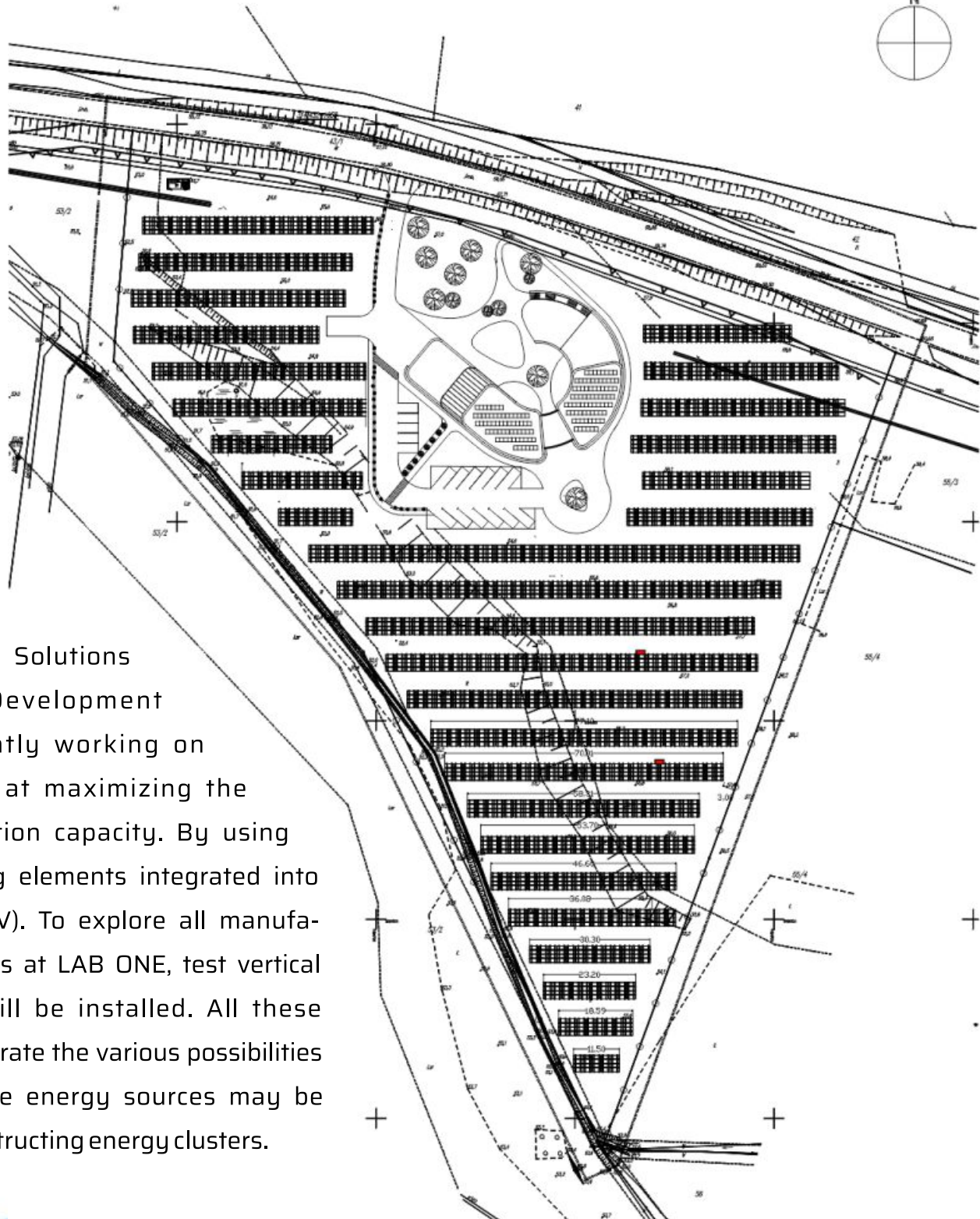
The company plans to purchase partly acquired land on Mostowa Street, Gniewino, where the LAB ONE research unit and ultimately the company's headquarters will be built. The real estate in Gniewino intended for investment is an industrial plot with an area of 30,100 m<sup>2</sup>. The property, in accordance with the local plan adopted by the Gniewino Council, has been assigned the symbols E, K, O, W, C, G, which permits the location of teletechnical infrastructure, electromagnetic, gas networks and the production of energy gases. The property is connected to the sewage system and the gas network. On this site, the company plans to build an office and research building, an electricity production complex in the form of a photovoltaic farm connected to an electrolyser system and a hydrogen storage warehouse, as well as an FCEV refueling station and BEV charging units within the network of Solaris Hydrogen Energy Station. The total investment is initially estimated at USD 7.2 million.

During the investment process, the company plans to obtain the status of a research and development center in accordance with Article 17 of the Act of 17 May 2008 on certain forms of support for innovative endeavors.



## Power system

A photovoltaic farm located at the research center will be responsible for generating energy in the LAB ONE unit. Initial assumptions regarding generation capacity are estimated at 1.92 MW, consisting of a minimum of 3564 modules. The production panels used will be fitted with BIFACIAL



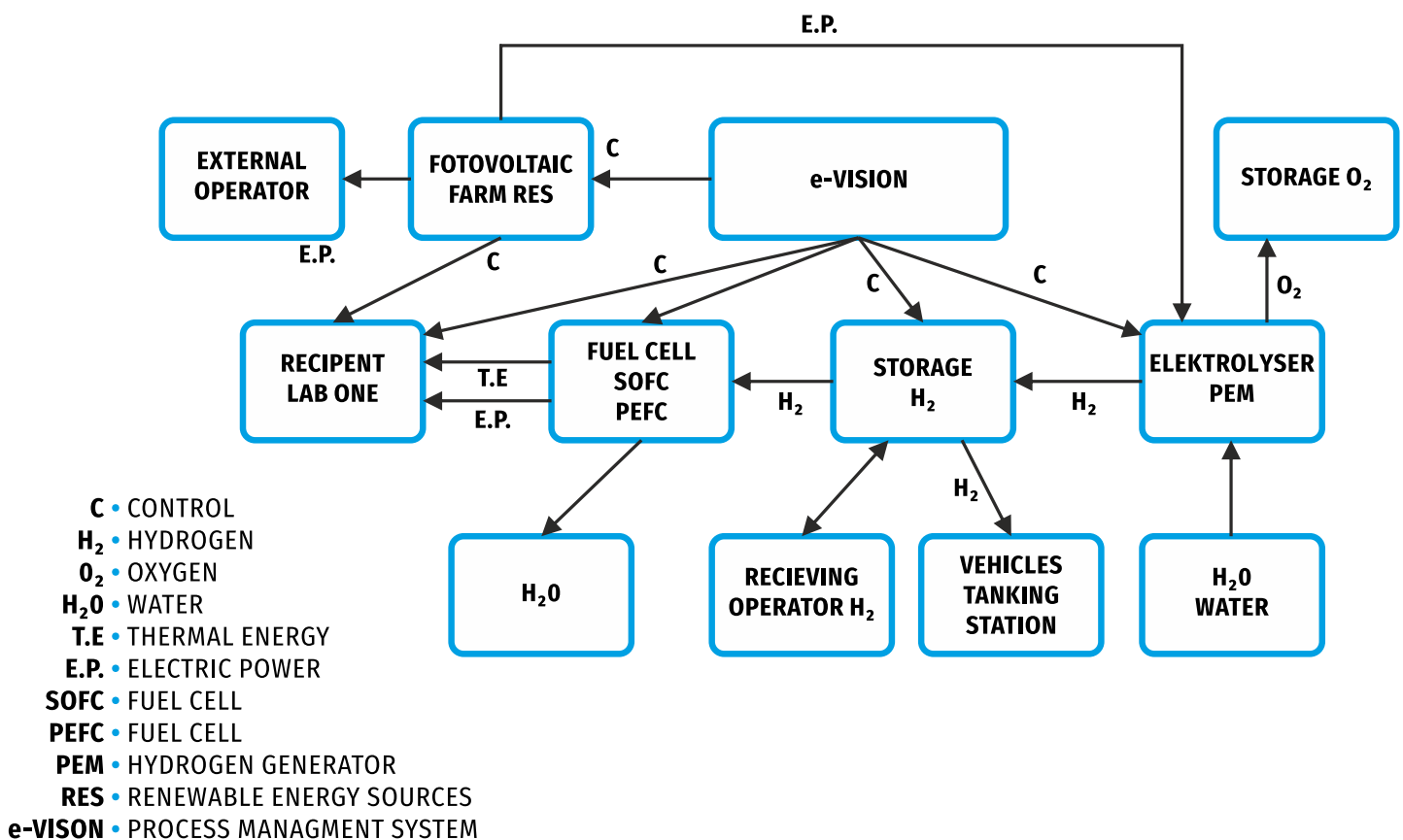
The Future Solutions Research and Development Center is currently working on a design aimed at maximizing the achieved generation capacity. By using energy-generating elements integrated into the building (BIPV). To explore all manufacturing possibilities at LAB ONE, test vertical wind turbines will be installed. All these elements will illustrate the various possibilities of how renewable energy sources may be applied when constructing energy clusters.

## H<sub>2</sub> production system

technology (double-glazed).

LAB ONE's main role is to produce green hydrogen and research related technology. For this purpose, Future Solutions Research and Development Center has decided to use its own Solaris Hydrogen system and Solaris H<sub>2</sub> model, whereby the energy generated by the photovoltaic farm will be converted into green hydrogen by an electrolysis unit. The resulting gas will be compressed and stored (CGH<sub>2</sub>) in composite tanks designed specifically for this purpose.

Future Solutions analyses the available variations of the electrolysis system that may be applied to the Solaris Hydrogen H<sub>2</sub> concept based on e-Vision process management. These include electrolyser systems for alkaline water electrolysis and modular PEM (Proton Exchange Membrane) electrolysis using pure deionized water. The main parameters of the analysis are the efficiency and service life of the system adapted to the generating capacity estimated in the initial concept of the power supply system. One of the main parameters for choosing a technology is the possibility of its



## Laboratory

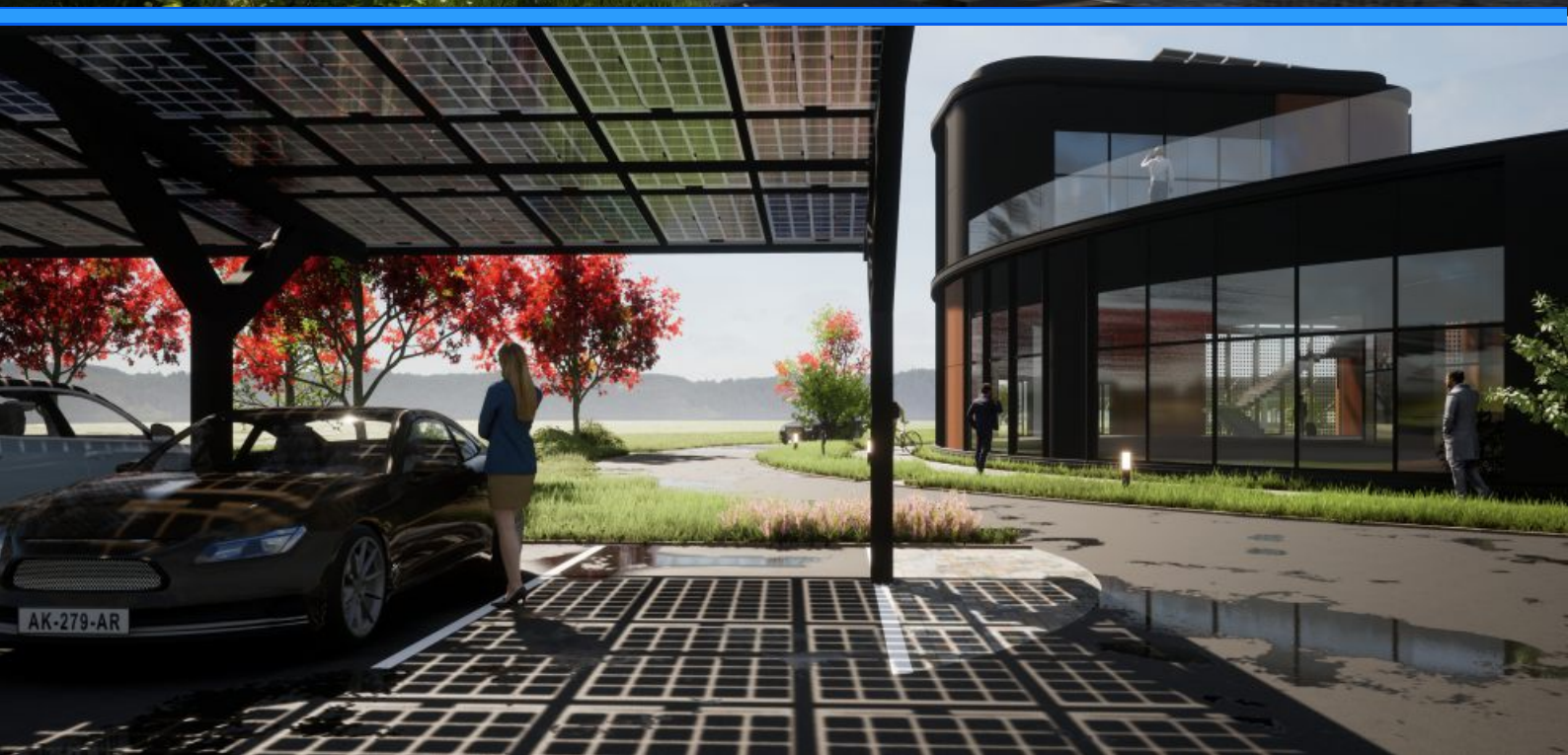
commercial application.

The LAB ONE Research and Development Center has been initially estimated to cover 1.3 thousand m<sup>2</sup>. The building will be powered from a photovoltaic power station and a fuel cell stack processing green hydrogen produced by LAB ONE itself.

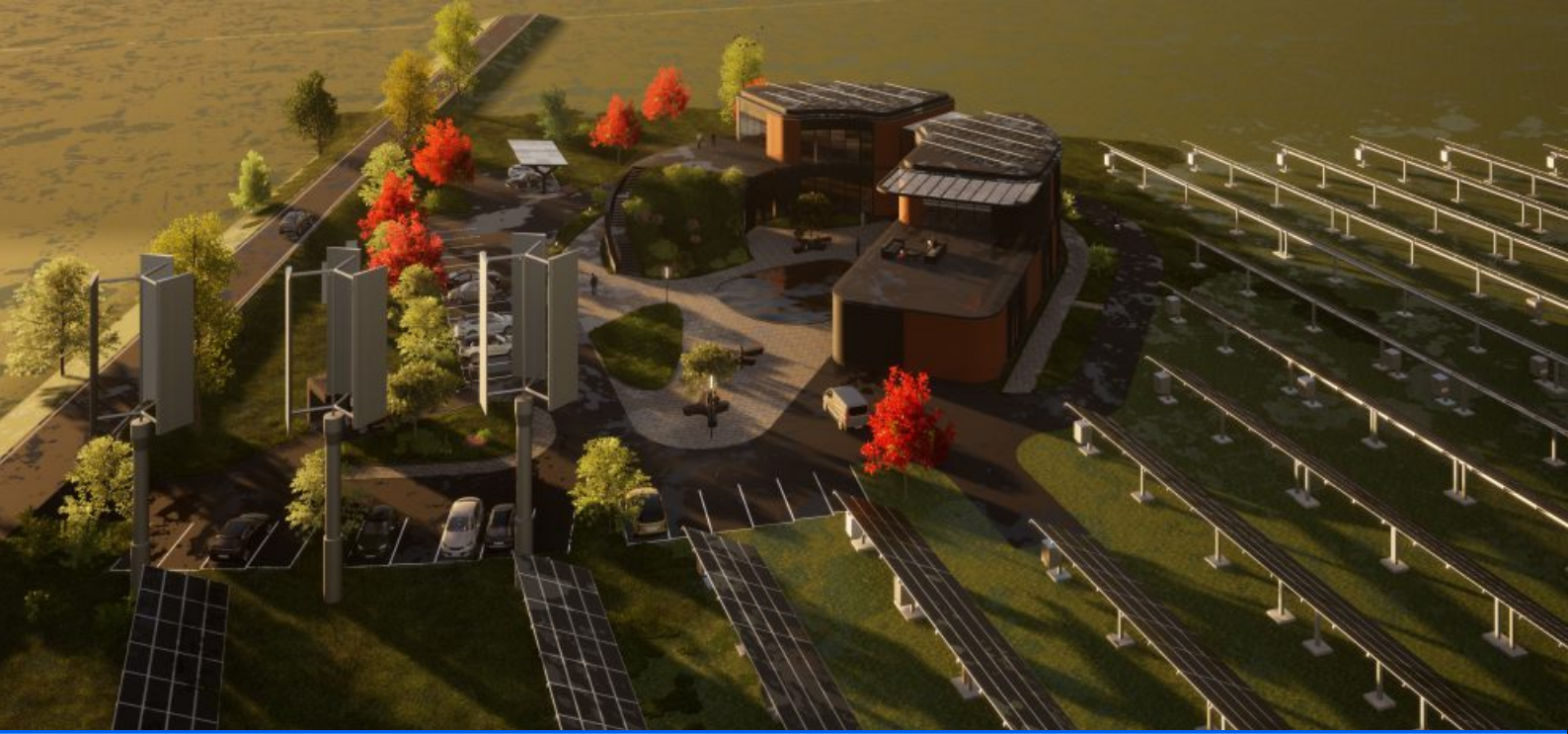
The thermal energy required to heat the building will be generated via a cogeneration process in a fuel cell stack. In addition, a gas co-generator will be installed to test how hydrogen could be mixed with city gas and the resulting combustion process. The entire system will be managed by the innovative e-Vision system to monitor the processes operating in LAB ONE. The center will accommodate office space, research laboratories, a training room and the unit's servers. Future Solutions Research and Development Center is currently investigating the possibility of using additional energy-generating devices in the construction of the LAB ONE laboratory. Building Integrated Photovoltaics (BIPV) technology will be added in order to maximize energy production in the unit. This involves incorporating photovoltaics into the design: window glazing, blinds, facades, skylights and glass heating sills. Parking spaces will also feature solar carport roofs, which are a perfect combination of aesthetics and functionality. These elements will complement the main generating unit - the photovoltaic farm that forms part of the unit's infrastructure.

The entire LAB ONE concept will be complemented by the design of the building, with a focus on creating harmony with the natural environment and a sense of community for the people working there via its architecture. We commissioned the design work to the renowned APB studio.













# **Future Solutions**

## **purpose and mission**

## LAB ONE objectives

The Future Solutions Research and Development Center's main aim is the practical implementation of the objectives arising from the cluster's research, development and innovation policy. Within the meaning of the R&D Act, this will bring the company tangible benefits in the form of tax relief and enable the use of preferential financial instruments.



- The company's aim is to develop new technologies for selected sectors, in particular:
- Configuration designs of zero-emission cluster units
- Concentrated research applications for the development of new production technologies
- Creating new, sustainable business models for producing and distributing electric and machine energy globally, as well as on the Polish market, and running a profitable business as a result;
- Finding and testing technologies and systems protecting against potential improvements to the operating and business system;
- Creating ecosystems for innovative solutions, in cooperation with scientific institutes and other partners in the area of zero-emission cluster systems
- Creating electrical, analytical and management resources for cooperation with startups.

Operationally, Future Solutions Research and Development Center plans to build a zero-emission energy cluster powered by renewable energy sources with a capacity of no less than 1.7 MW and an accompanying set of laboratories to facilitate research on renewable energy, in particular the production of green hydrogen and the construction of cluster systems. Future Solutions plans to conduct scientific research, development work and other activities primarily in the following areas:

- research on the efficiency of green hydrogen production in the electrolysis process;
- using green hydrogen in construction;
- energy management optimization systems, including advanced IT systems;
- applying innovative sets of optimizing sensors and measurement systems;
- charging units and methods of storing electricity and the possibility of building a green hydrogen refueling cluster network.

The guiding principle of Future Solutions LAB ONE Research and Development Center is to constitute a kind of link between science and the world of business and global utility production, or commercialization. As a research unit, we intend to fill the gap between the scientific community and

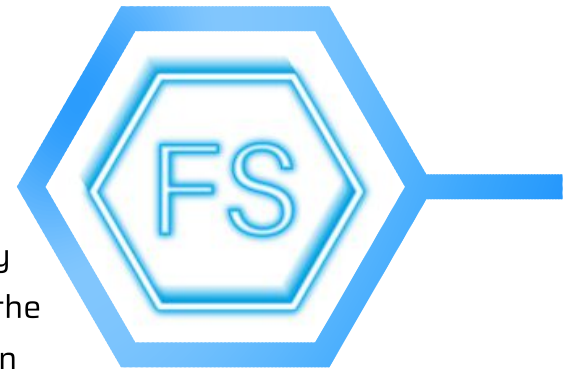
the market by researching and optimizing products at the idea or patent stage, and by innovatively adapting existing equipment and devices in an unprecedented way.

Future Solutions R&D Center aims to contribute to a wider implementation of the principle of sustainable development and the decarbonization of industry. By putting research into practice, we intend to help achieve the international COOL EARTH goals - reducing the earth's temperature by 2 degrees C by 2050.

## 3.2.

### The Future Solutions mission

Hydrogen has a chance to play an important role in the energy mix. In our opinion, this is one of the most promising solutions on the low-carbon energy market to help achieve climate neutrality. Green hydrogen is cited as one of the key energy sources that may contribute to the implementation of the European Green Deal. Hydrogen cells produce electricity through the chemical transformation of hydrogen and oxygen, while water produces hydrogen via electrolysis. Once the domain of space exploration, nowadays it is used more commercially, including vehicle propulsion, heating or electricity production.



#### Therefore, the Research and Development Center's main mission is to study:

- Electrolysis process and efficiency
- Use and testing of graphite electrodes
- Applicability of graphene in hydrogen technology
- Energy storage techniques and discharge parameters
- Long-term and large-scale energy storage
- Biological hydrogen generation
- Hydrogen bonding techniques for transportation
- Smart energy management systems
- Smart energy consumption meters
- Modern electric charger systems
- IT support in the general energy sector
- Methods of creating zero-emission cluster systems for the construction industry





**SDT<sub>1</sub> LAB ONE ITO**  
**in the ECM ecosystem**

## The concept of energy tokenization and the construction of a zero-emission cluster system

The energy market concerns us all. Soaring energy prices, costs of energy acquisition, atmospheric pollution, and depleting natural resources are the main problems facing the global market. The world stands on the brink of some difficult economic and moral decisions, reflected by new regulations on pollutant emissions. Decarbonization projects are expensive, and the costs of implementing them will be shouldered by each and every one of us. There is only one direction: obtaining the largest possible supply from renewable energy sources.

With this aim in mind, Energy Coin Market has decided to build an innovative solution in the form of a zero-emission distributed energy system. For this purpose, we have constructed a FinTech tool that operates via an Internet platform, to help people actively participate in the production of clean energy and use it in unprecedented ways.

The ECM concept is based on the construction of independent energy clusters integrated into the architecture of our cities and villages. Thanks to the use of BIPV technology, significant amounts of energy may be generated without interfering with unspoiled nature. By using hydrogen technology solutions, we have been able to store unused surplus energy for years and then use it when there is no production. Such installations can be successfully supplemented with home vertical wind turbines or tidal turbines, depending on capabilities and needs.

These production units owe their existence to modern IT solutions in the form of blockchain and the ECM ecosystem will be presented to the public on the basis of an ITO (Initial Token Offering). By representing the energy cluster with an SDT (Solaris Device Token) series utility token that includes the generation capacity (kW) and the construction value, a multi-use coupon could be created. The SDT token confers the right to receive the energy produced by the power it represents. Unfortunately, due to its nature, energy cannot be packed in a cardboard box or poured into a bottle. Distributed register technology comes to the rescue once again, enabling energy to be expressed digitally. In the ECM ecosystem, this function is performed by the EC (Energy Coin) token with a fixed parity of  $1 \text{ EC} = 1 \text{ kWh}$ .



To summarize, an ECM ecosystem user with an SDT token (series) will receive EC tokens representing the generated energy via a free-of-charge air drop. For the ecosystem to function globally, one more problem must be solved: different energy values for a given region or energy carrier. Therefore, ECM has introduced the EC token nominal value parameter. This value will be assigned individually when the token is issued for a given SDT series cluster and will be determined based on the following:

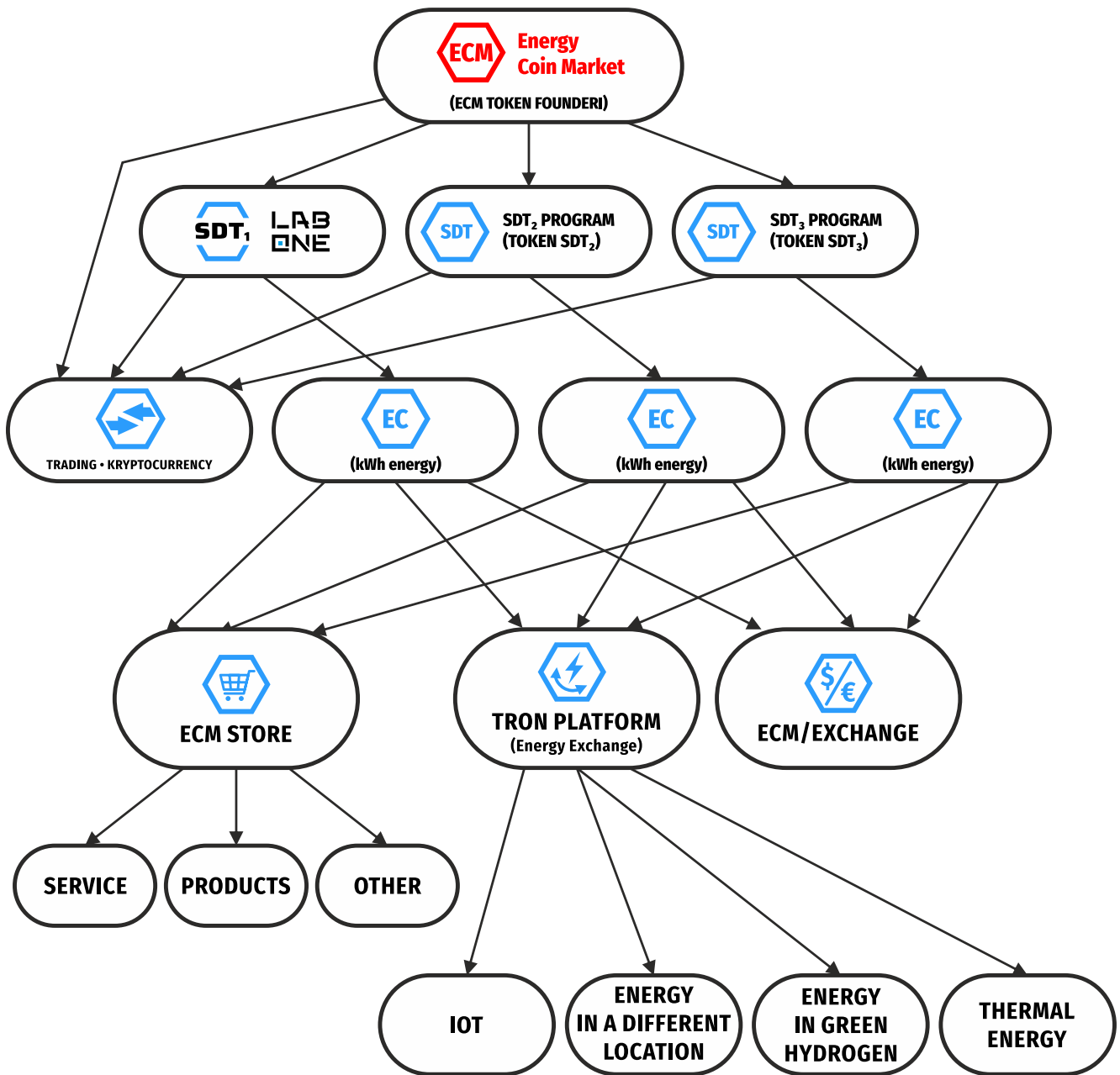
$$\begin{array}{l}
 \text{Nominal} \\
 \text{EC} \\
 \text{value}
 \end{array}
 = \frac{\Sigma \text{ The total value of energy produced}}{\Sigma \text{ Total amount of EC emissions from a given cluster}}$$

(production amount in kWh)

The nominal EC value will be expressed in USD to enable the scalability of the ecosystem and allow users to choose where they want to generate green energy. Including clusters in everyday architecture will also enable production and consumption to be linked on a prosumer basis. Expressing energy digitally as an EC token also opens up new possibilities for its use or inter-cluster exchange via ECM/STORE, ECM/EXCHANGE, SES and TRON Energy Exchange Platform tools.

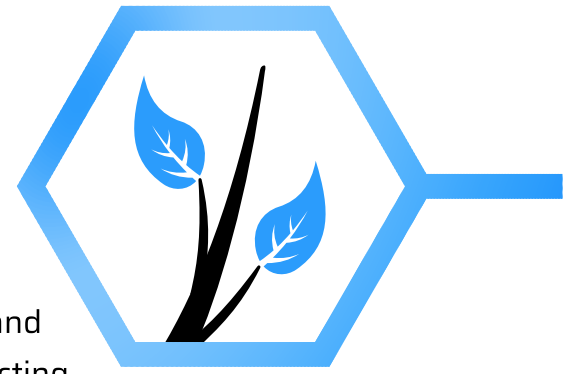
This is how ECM tokenizes the energy system and the energy produced in it.

## DIAGRAMS OF THE FUNCTIONING OF THE ENERGY COIN MARKET ECOSYSTEM (ENERGY WALLET)





## Sustainable ESG growth and a win-win model



The ECM ecosystem is designed to give everyone a choice and help them make the decision to start a sustainable life. By constructing a distributed cluster system in which we can participate by generating energy, we have the opportunity to stabilize power supply costs. We can also use energy differently than before. However, the most important point is that the energy clusters in the ECM ecosystem are zero-emission thanks to renewable energy and hydrogen technology. The only waste produced during their operation is water. Therefore, a counter will be featured on the ECM Platform illustrating the benefits achieved from all the atmospheric pollutants that have not been emitted. Additionally, Energy Coin Market will be connected with the ETS green certification system. If clusters obtain so-called green certificates, they will be distributed among SDT series token holders of a given generation system as property rights granted by the token.

Where ECM will generate a lot of benefits is ESG (environmental, social and governance). Sustainable development policy plays an increasingly important role in the global economy. In EU countries, the buildings and facilities where ECM will build energy clusters are responsible for 40% of greenhouse gas emissions, so their energy efficiency has become a key concern. Zero emission is one of the most important goals of construction. Emissions in this sector must be reduced by 30% of the average energy intensity of buildings and 55% of CO<sub>2</sub> emissions by 2030. This target has been imposed by the Paris Agreement and the introduced provisions of the European Green Deal. The regulations of the Energy Performance of Buildings Directive (EPBD) and the environmental reporting obligation from the Non-Financial Reporting Directive (NFRD) and Corporate Sustainability Reporting Directive (CSRD) are designed to achieve such objectives. Including buildings in the Emission Trading System (ETS) certification system (green certificates) will also be of key relevance. The amendment to the Energy Performance Directive is to include a requirement that from 2028 all newly constructed buildings in the EU are required to have photovoltaic installations fitted and meet zero-emission regulations.

Regulations regarding the Carbon Border Adjustment Mechanism (CBAM), referred to as carbon duty, will also prove significant for international trade. This mechanism aims to offset the costs of CO<sub>2</sub>

emissions for products imported into the EU from countries that do not have restrictive regulations regarding greenhouse gas emissions. The CBAM mechanism will regulate the prices of imported goods by building emission costs into their value.

The above regulations create a dilemma that all stakeholders must face. Without investing in green solutions, there is no chance of remaining competitive. In our opinion, the costs of decarbonization will be largely passed on to the end user (consumer). ECM's proposal to build a distributed system based on zero-emission energy clusters (SDT) integrated with modern construction and a digital image of green certified energy (EC) will enable the regulations to be applied smoothly. The tokenization process (ITO) will also help reduce costs incurred by all stakeholders by giving them the opportunity to produce clean energy and profit from it. The opportunities offered by ECM through virtual prosumer mechanisms in the form of the Tron Energy Exchange Platform will also enable importers and producers from outside the EU who will be affected by the CBAM carbon duty, to remain competitive. The implementation of ECM solutions will help achieve emission levels and minimize costs by combining production and consumption in accordance with the win-win business principle.

## 4.3.

### ECM in use

#### 4.3.1.

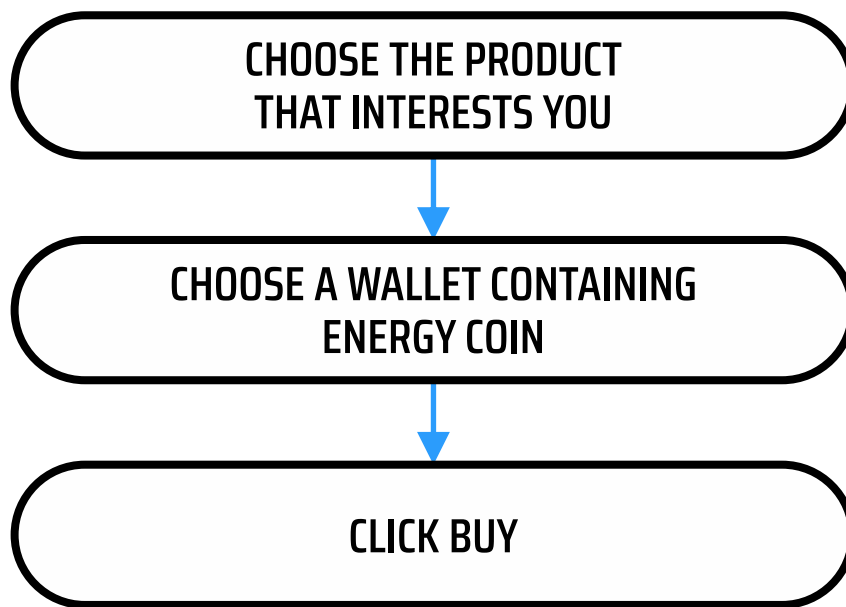
### ECM STORE



The Energy Coin Market ecosystem will include a unique zone on the platform called ECM/STORE. Here, users will be able to purchase various types of products and services using their energy obtained in the form of Energy Coins (EC).

The ECM/STORE will be accessible to every Internet user so that they can check what products are available. Only registered users of the ECM platform will be authorized to conclude exchange transactions. The ECM/STORE will operate according to regions and will be adapted to the particular market: Europe, America, Asia and Africa.

The ECM/STORE offers an easy way for users to purchase available products for previously generated energy, without the need to use a credit card or account in the classic sense.



The ECM/STORE is an e-commerce solution that enables energy to be used differently than before by creating purchasing power from it. The business model used to build the ecosystem will have a unique impact on the product range. In accordance with the ECM policy, our store will primarily offer products and services produced by SDT cluster members. This will boost its appeal and guarantee new sales markets for entities that decide to take advantage of the modern zero-emission energy generation systems available from ECM. The services provided by our clusters will be supplemented with a wide range of products not produced by ecosystem members. Paying with clean, ecological energy for products produced with the same energy can achieve a more sustainable economy more quickly.

In order to improve ECM/STORE logistics processes, an original sales method - DROP SHIPPING - will be used. In this model, the store mechanism takes care of marketing, collects orders for customers, settles payments and sends orders to ship specific goods to suppliers offering them. Such a solution based on modern mutual outsourcing services will, on the one hand, reduce sales costs and, on the other hand, minimize storage expenses. The sales mechanics of the ECM/STORE platform will be supported by artificial intelligence, which, based on data collected from the ecosystem, will adjust to recipient groups, create targeted marketing campaigns and season the products on offer. The ECM/STORE will work according to the following principle:

**USE YOUR ENERGY TO BUY WHATEVER**

### 4.3.2.

## ECM / EXCHANGE

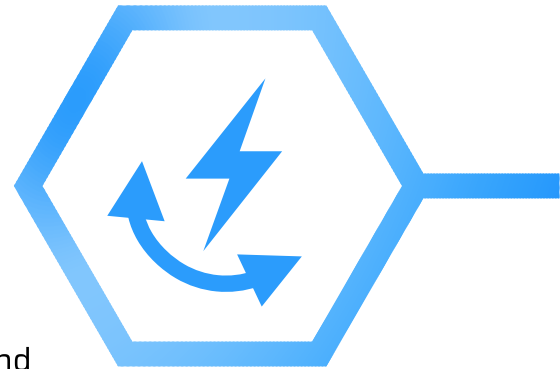
The ECM/KANTOR tool serves another useful aspect of the Energy Coin Market ecosystem. This is not a typical exchange office where any assets can be exchanged. ECM/EXCHANGE is used to burn EC (Energy Coin) tokens while this token is exchanged for classic FIAT currency or for subsequent tokens from the SDT series in the SES system. As in the ECM/Market, only a token with an active option for face value exchange may be exchanged.



### 4.3.3.

## TRON

TRON - Energy Coin Market in cooperation with the Future Solutions Research and Development Center creates a complete and reliable tool for everyone involved in the energy market locally, in a cluster, or otherwise. The system's basic job is to create an effective peer-to-peer exchange of energy (expressed by the Energy Coin token), which instantaneously generates significant value for consumers, energy producers, power grid operators and the environment. The platform will have many unique features enabling the exchange of energy expressed in EC - from the very beginning, the system has been designed with the distributed energy market in mind. The TRON Energy Exchange Platform is designed to work with renewable energy sources such as wind, water or photovoltaic farms, as well as smaller home photovoltaic installations by using a unique combination of systems.



Solaris Hydrogen, the Energy Coin Market block technology and the TRON Platform will ultimately also enable energy to be exchanged in various forms: e.g., green hydrogen, heat or electricity. To make an exchange system that is fully functional, Energy Coin Market will acquire the right and opportunity to exist on the markets as a transmission unit and energy operator, or establish close cooperation with such an operator.

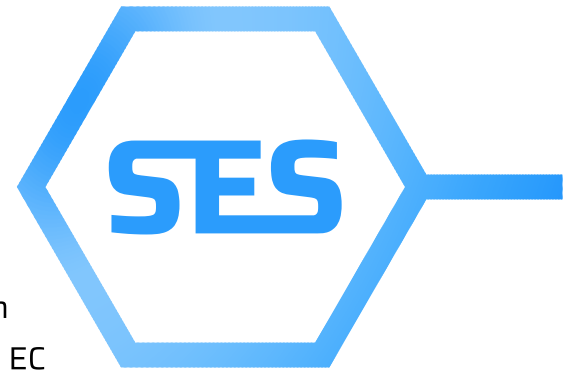


#### 4.3.4.

### SES system – ecosystem expansion

SES (Synergy Expansion System) – is a synergy mechanism for the development of the ECM ecosystem (energy portfolio). The EC (Energy Coin) token, in addition to the face value exchange function at ECM/EXCHANGE as well as the value function on the TRON Energy Exchange Platform, will be endowed with another function so that the EC may be exchanged for SDT series tokens available in the Energy Coin Market offer. This exchange will be supplemented with preferential terms and conditions always specified in the White Paper of a given program from the SDT series or in the form of promotional campaigns.

The SES mechanism will facilitate the use of the energy value acquired in the already functioning SDT programs in order to expand the ECM ecosystem – i.e., the energy portfolio – by relocating them into subsequent tokens from the SDT series. The SES mechanism is designed to enable users with a long-term strategy to reap additional benefits by allocating the generated energy to subsequent energy generating programs (SDT). For the Energy Coin Market Platform itself, the SES mechanism will prevent a partial outflow of generated energy expressed in EC because of its total consumption by ECM/EXCHANGE, TRON Platform, ECM/STORE.



#### 4.4.

### ECM and SDT, LAB ONE technology

#### 4.4.1.

### BEP-20

BEP-20 (Binance Smart Chain Evolution Proposal) is a token standard created by Binance for Binance Smart Chain, a smart contract platform that runs alongside the original Binance Chain. Tokens are an important element of any blockchain based system and DApps. They facilitate the flow of value and help keep track of all activity along the chain.

Binance adopts a unique "double chain architecture". Therefore, its network supports two chains: Binance Chain and Binance Smart Chain. The native BNB token is used to drive both. While each



chain is independent of the other, the infrastructure operates via a bridge with its own unique mechanics.

It uses wrapping to transfer assets between blockchains. Thanks to this solution, the system is ultra-safe as well as stable.

Binance Smart Chain is compatible with EVM (Ethereum Virtual Machine), and so it is possible to transfer DApp to it or connect it to a MetaMask wallet. The BSC consensus algorithm is now PoSA (Proof of Staked Authority), a variant of the PoS (Proof of Stake) algorithm. This solution ensures high speed and low transaction costs. Proof of insertion is a form of cryptocurrency mining, which is primarily based on rewarding users of the chain for the mere fact that they have a working asset in the wallet, and not for actual mining and using full GPU power. For this reason, the PoS method puts far less burden on the computer unit, which results in lower electricity consumption, and consequently produces a pro-ecological effect in accordance with the concept of the ECM ecosystem.

#### 4.4.2.

### e-Vision

e-Vision, together with the MDM module and the Energy Management system, is a comprehensive billing system for trade and distribution - simply put, a complete software package for energy clusters, energy cooperatives, as well as any entity wishing to integrate all the needs of local distribution operators and energy sellers in one tool. Fully integrated with dedicated hardware platforms (meters, EMS devices, etc.) as well as FK Platforms, and able to work in cloud and on-premises models, this solution ensures not only perfect adaptation to market needs, but also fast implementation. The combination of e-Vision system modules through smart contracts with the ECM Platform block system and SDT programs can guarantee safe billing for the energy produced and the amount of EC due.

[www.cbrfs.com](http://www.cbrfs.com)



## ECM DApp

ECM DApp is software which ensures that processes involved in the Energy Coin Market ecosystem run properly. This tool is based on a set of smart contracts that guarantee the precise and consistent operation of the ecosystem, meaning guaranteed self-regulation and automatic control. This 'cuts out the middleman', reduces transaction costs, and also depersonalizes trust, in the sense that the standing of a particular entity does not need to be checked. This solution is also referred to as 'trust without trust', based on the principle of code enforcement (smart contract). The brain of the system is a database that facilitates the recording and flow of data between e-Vision, ECM/STORE, TRON Energy Exchange Platform, ECM/EXCHANGE. The application is based on distributed register technology in the BEP-20 system.

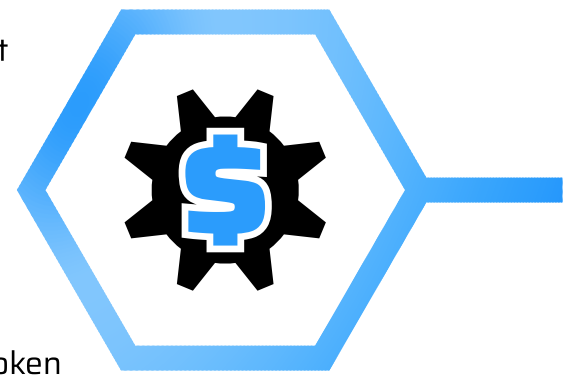






**LAB ONE financial  
aspects and funding**

Future Solutions Research and Development Center was set up as a self-financing venture that will generate its main revenue and profit from producing energy in the form of electricity or green hydrogen from the installation of a photovoltaic farm located at the Research Center itself.



Energy produced in this way will be represented by an EC token (Energy Coin) with a constant parity of  $1\text{EC} = 1\text{ kWh}$ . All EC tokens issued will be distributed proportionally in the form of a free air drop among SDT<sub>1</sub>, LAB ONE token holders. The issuing of tokens and operation of air drop are regulated by ECM DApp smart contracts. This guarantees security and automation.

Another important component of the SDT<sub>1</sub>, LAB ONE system's revenues is the fact that FUTURE SOLUTIONS will participate in subsequent ecosystem clusters. LAB ONE acts within the zero-emission distributed ECM cluster system as a research and development unit responsible for the correct operation, optimization and monitoring of clusters, as well as development opportunities. For this reason, the LAB ONE system will be entitled to receive a free air drop of tokens for subsequent SDT clusters (series), thus ensuring that the energy expressed as an EC token (Energy Coin) will have a cyclical impact. These values will also be distributed by ECM DApp smart contracts among SDT<sub>1</sub>, LAB ONE token holders, thereby boosting efficiency. To maintain the consistency and scalability of the ECM ecosystem, Future Solutions will also act as a user of the ecosystem in the sense that it shall retain a pool of frozen reserve tokens prohibited from sale to guarantee the LAB ONE unit revenue in the form of energy. They ensure self-financing and the smooth operation of the cluster. The frozen reserve mechanism will also ensure the transparency of air drop remuneration in the ECM ecosystem.

Additional revenue will be generated by the research conducted in Gniewino and its subsequent commercialization. Moreover, in connection with its research work, the Future Solutions R&D Center plans to obtain EU and government subsidies and grants from funds intended for the development of green energy and hydrogen technologies.

A sewage treatment unit is located in the immediate vicinity of LAB ONE in Gniewino. Future Solutions plans to establish future cooperation regarding the production of green hydrogen from waste products generated during purification. If energy is generated in hydrogen, it will be represented by an EC token and will increase the air drop for holders of the SDT<sub>1</sub>, LAB ONE token.

- The maximum cost of construction and creation of LAB ONE Future Solutions Research and Development Center is estimated at USD 7.2 million, to be modified in accordance with the design stages of the unit

**Funds raised from the issue of tokens will be divided into stages:**

**The first – the pre-sale – will finance the following conceptual design areas:**

- The premises
- The PV installation
- The green hydrogen production and storage installation
- An on-site water intake and treatment facility
- Hydrogen cell stacks and gas cogeneration installation
- SHES station design

This will facilitate a precise cost estimate including detailed amounts for the individual stages of the investment, and the amount of SDT<sub>1</sub> LAB ONE tokens issued through the liquid reserve system will be adjusted accordingly.

**The second stage, financed from the public offering of the token, will involve:**

- The completion of target projects, procurement of relevant building permits, and selection of the general contractor for the building and the production installation
- Development of the e-Vision process management system

**Stage III:**

- Constructing an intake and water treatment plant
- Constructing the photovoltaic farm installation
- Connecting up the power
- Starting electricity production

**Stage IV:**

- Constructing the laboratory building
- Constructing the green hydrogen production and storage installation along with the necessary infrastructure
- Constructing the hydrogen cell stack system
- Constructing the gas cogeneration system
- Installing the servers and laboratory equipment (scientific infrastructure)



## Stage V:

- Launching the e-Vision system - monitoring of manufacturing processes
- Test launch of green hydrogen production
- Efficiency and performance measurements
- Acceptance of the FS RDC unit in Gniewino

## Stage VI:

- Operations up and running

Should the hard cap be reevaluated before the public sale, the number of tokens will be reduced to the project's production value through a liquid reserve.

Financing via tokenization - purchasing a token as a kind of prepaid voucher for energy generated in the future - along the associated wide functionality, allows investors to reap some long-term benefits. Considering the shift in the value of energy over time and the trends in the energy technology market, the prospects for this type of investment look very promising indeed. In addition, each investor may become actively involved in the process of decarbonizing the economy and protecting the natural environment. In accordance with the mission of Energy Coin Market, by building a green energy portfolio and providing unique and innovative tools, it provides a fresh insight into energy and how it could be used.

**#ECM MARKET**

**#TRON**

**#ECM/EXCHANGE**

**#SES**

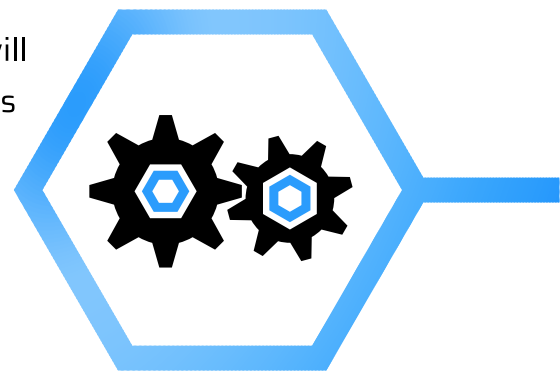
**#BLOCKCHAIN**

**For more, visit [www.ecmarket.eu](http://www.ecmarket.eu)**



**The SDT<sub>1</sub> LAB ONE  
tokenomy**

Tokenization – financing through a crowdfunding system – will be conducted via the Energy Coin Market Platform on the principles of the EC Market ecosystem in accordance with the contract concluded. ECM will issue the SDT<sub>1</sub> LAB ONE system token.



### Principles of the SDT<sub>1</sub> LAB ONE system:

- > The number of SDT<sub>1</sub> LAB ONE tokens submitted to ITO is finite and equal to the value of the production costs of the LAB ONE product in the ECM ecosystem for the Future Solutions Research and Development Center
- > The Soft Cap of the SDT<sub>1</sub> LAB ONE project has been estimated at 2,900,000 SDT<sub>1</sub> tokens. This amount is the total of tokens issued during the ECM starter round as well as 900,000 SDT<sub>1</sub> LAB ONE tokens used to acquire land in Gniewino.
- > The Hard Cap is the number of tokens for the ITO public offering and amounts to 7,200,000 SDT<sub>1</sub> LAB ONE tokens
- > SDT<sub>1</sub> tokens will be issued in five rounds
- > The funds obtained by issuing the SDT<sub>1</sub> token will be distributed in accordance with the investment schedule (stages) described in the previous chapter
- > Each stage will be approved by a committee of ECM and FS RDC representatives together with an independent investment inspector.
- > The SDT<sub>1</sub> token is a primary token created in the BEP-20 blockchain network.
- > The SDT<sub>1</sub> LAB ONE token shall represent the production capacity of the LAB ONE cluster according to the following:

$$\text{SDT}_1 \text{ LAB ONE} / \text{kW} = \frac{\Sigma \text{ power generated in kW by the LAB ONE unit}}{\Sigma \text{ amount of SDT}_1 \text{ LAB ONE tokens issued}}$$

- > Each token may be divided according to the standard adopted
- > The SDT<sub>1</sub> token will come with burn options according to the lifespan of the project (the lifespan of an energy production unit)
- > The energy generated in the system will be displayed through a digital EC token equal to kWh and transferred in the form of Air Drop to holders of the SDT<sub>1</sub> LAB ONE token in accordance with the indicator:



$$\text{EC / SDT}_1 \text{ LAB ONE} = \frac{\Sigma \text{ amount of EC tokens issued (amount of energy produced)}}{\Sigma \text{ amount of SDT}_1 \text{ LAB ONE tokens}}$$

$$\Sigma \text{ amount of energy produced in kWh within the LAB ONE system} = \Sigma \text{ amount of EC tokens issued from the SDT}_1 \text{ LAB ONE system}$$

- > The SDT<sub>1</sub> token will operate through a smart contract that strictly defines the manner and date of transferring the energy produced in the form of an EC token in accordance with the ECM ecosystem (DApp ECM)
- > The amount of EC derivative tokens produced will be equal to the amount of energy produced in the LAB ONE generating unit in Gniewino.
- > The nominal value of an EC buy back by Energy Coin Market for SDT<sub>1</sub> of the LAB ONE Gniewino unit will be determined quarterly in accordance with the following:

$$\text{EC nominal value} = \frac{\Sigma \text{ value of LAB ONE energy produced}}{\Sigma \text{ amount of EC generated by the SDT}_1 \text{ token (amount of energy produced in kWh)}}$$

- > EC (Energy Coin) tokens representing the generated energy obtained from the air drop of subsequent clusters will be distributed according to the following:

$$\text{EC tokens Air Dropped for SDT}_1 \text{ LAB ONE} = \frac{\Sigma \text{ EC tokens acquired from Air Drop}}{\Sigma \text{ tokens in the SDT}_1 \text{ LAB ONE system}}$$

- > The regulations and principles regarding how the ECM ecosystem operates are available at [www.ecmarket.eu](http://www.ecmarket.eu)

## Issuing the SDT<sub>1</sub> LAB ONE token – the methodology

SDT<sub>1</sub> LAB ONE tokens will be issued in sales rounds related to the construction stages of the unit in Gniewino. This will enable the system to be up and running quickly and EC (Energy Coin) tokens to be issued. The LAB ONE energy cluster built by Future Solutions R&D Center and Energy Coin Market is one of the main pillars of the ecosystem. It will enable ECM to become operational and systematically develop a modern energy system. Together, we will tokenize zero-emission energy and the green energy it produces.

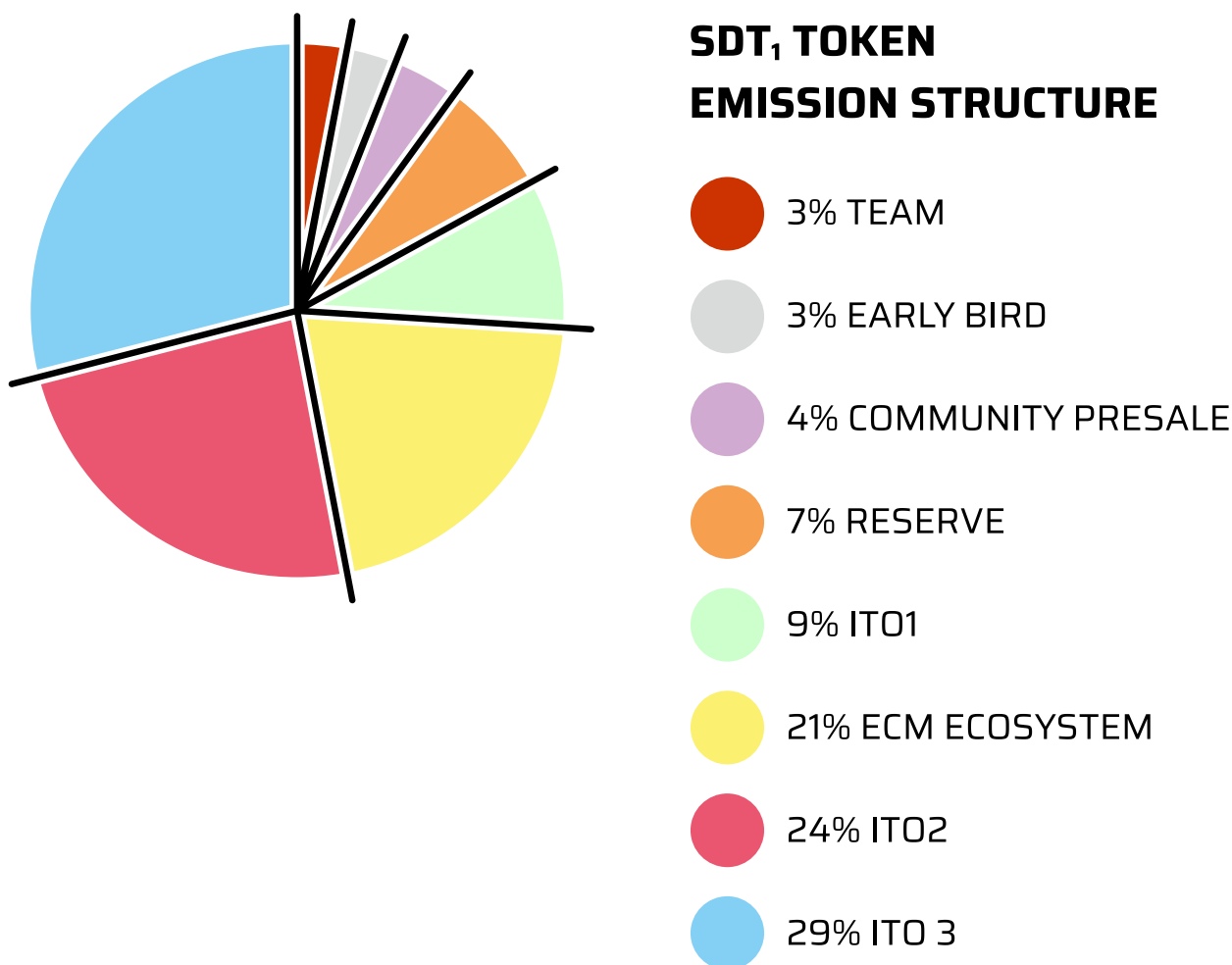
ITO Issuance	Round	Amount of SDT <sub>1</sub> LAB ONE Tokens for ITO	%ITO	Amount of Tokens	price
	EKOSYSTEM ECM STARTER	0	0,00%	2.000.000 SDT <sub>1</sub>	Air Drop
	ADVISOR/TEAM	0	0,00%	240.000 SDT <sub>1</sub>	Air Drop
<b>I</b>	EARLY BIRD PRESALE	210.000	3,47%	210.000 SDT <sub>1</sub>	0,8 USD
<b>II</b>	COMMUNITY PRESALE	350.000	4,86%	350.000 SDT <sub>1</sub>	0,85 USD
<b>III</b>	ITO ROUND 1	900.000	12,50%	900.000 SDT <sub>1</sub>	0,9 USD
<b>IV</b>	ITO ROUND 2	2.100.000	31,94%	2.100.000 SDT <sub>1</sub>	1 USD
<b>V</b>	ITO ROUND 3	2.700.000	37,50%	2.700.000 SDT <sub>1</sub>	1,05 USD
<b>VI</b>	LIQUID RESERVE	940.000	9,73%	940.000 SDT <sub>1</sub>	1,1 USD
	FROZEN RESERVE	0	0,00%	6.290.000 SDT <sub>1</sub>	FROZEN

Point VI is a liquid reserve which, in accordance with the principles of tokenization, can be redeemed in part or in full by adjusting the size of the SDT<sub>1</sub> LAB ONE issuance to the cost of creating the project.

It will also balance fluctuations in the USD/PLN exchange rate while the unit is being built. All subsidies, grants and the enterprise's own funds allocated to the construction of the LAB ONE unit by

Future Solutions Research and Development Center will result in the burning of an equivalent quantity of SDT<sub>1</sub> tokens

The frozen reserve represents a non-transferable blocked number of 6,290,000 SDT<sub>1</sub> LAB ONE tokens assigned to the unit. This is a technical, digital representation of a 40% air drop of energy that enables the LAB ONE cluster to be self-financed and to fund the work performed therein. Such mechanics will also ensure transparent remuneration via air dropper EC tokens (Energy Coin) from subsequent SDT series energy clusters, wherein Future Solutions Research and Development Center shall be a statutory participant. Frozen reserve pool tokens are prohibited from trading and cannot be submitted for an ITO offer. In this way, work on the development and expansion of the zero-emission distributed energy system of the ECM ecosystem is secured.



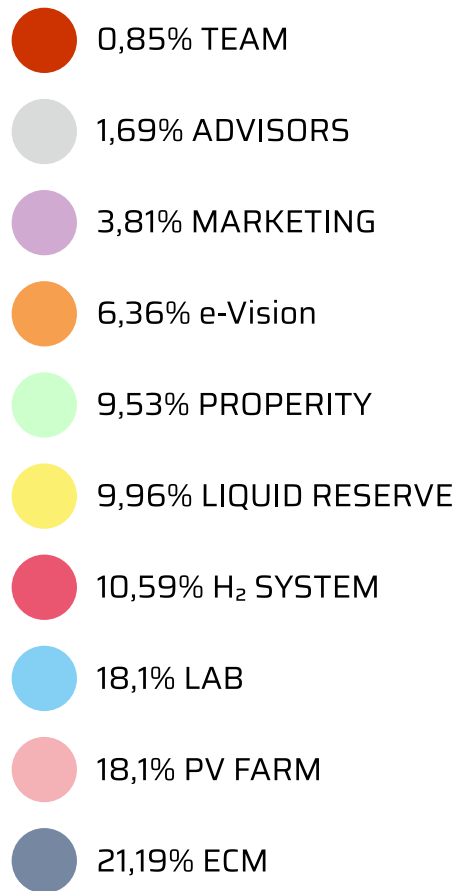
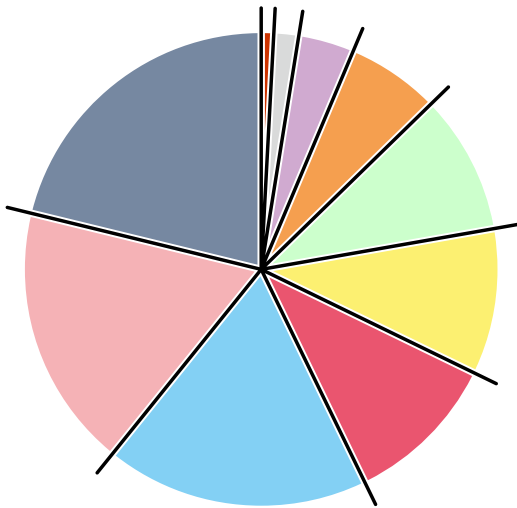


## Estimated methodology for using the funds generated by the SDT<sub>1</sub> LAB ONE program

Future Solutions Research and Development Center plans to distribute the funds obtained from individual rounds of the SDT<sub>1</sub> token issue in accordance with the following principles:

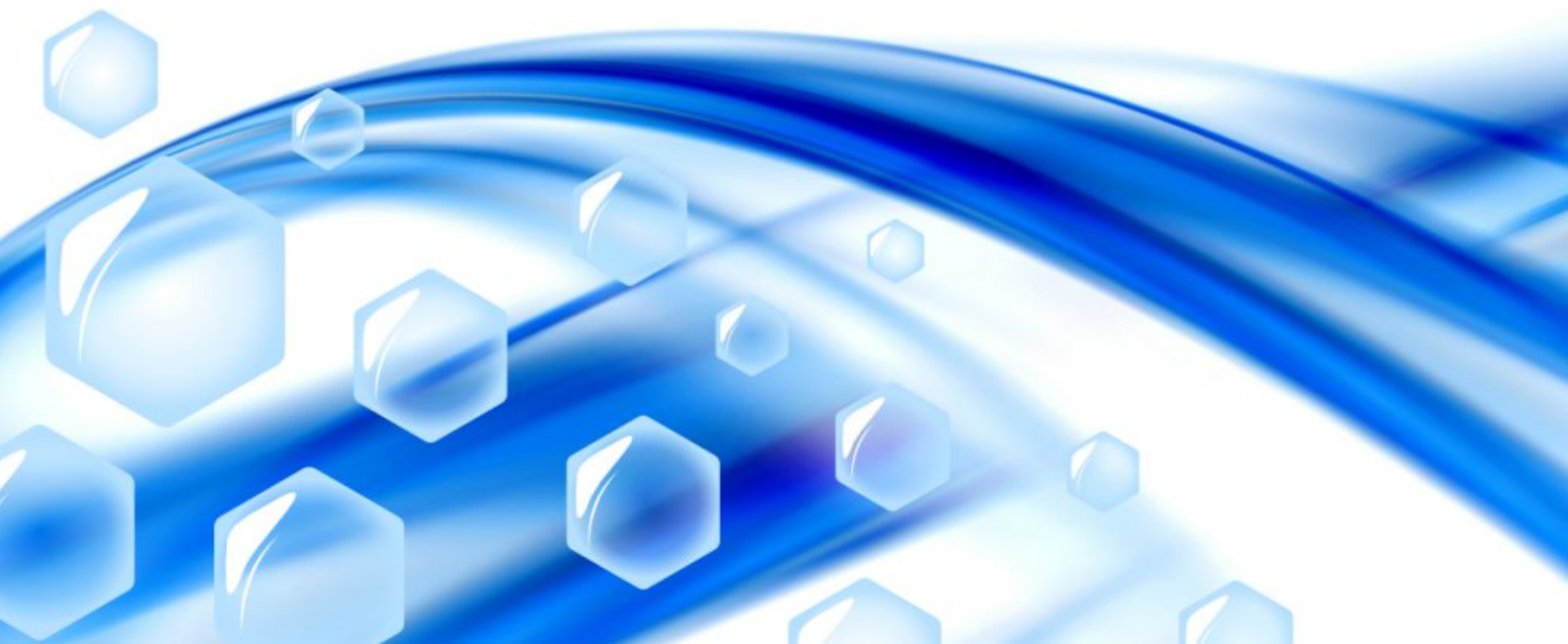
AREA	ALLOCATION OF FUNDS
<b>1. PUBLIC RELATIONS MARKETING</b> 360 000 SDT <sub>1</sub>	Building Public Relations and issuing progress reports about the work completed so far on the construction of LAB ONE as well as the operations of Future Solutions itself. Marketing campaign dedicated to the distribution of the SDT <sub>1</sub> LAB ONE token.
<b>2. SOFTWARE E-VISION</b> 600 000 SDT <sub>1</sub>	Financing the production of the e-Vision R&D program, in order to create a system for managing Processes in energy clusters adapted to the LAB ONE unit.
<b>3. PROPERITY</b> 900 000 SDT <sub>1</sub>	FS RDC acquires full ownership rights to the land in Gniewino for the construction of the LAB ONE unit. Partially via air drop.
<b>4. PV FARM</b> 1 700 000 SDT <sub>1</sub>	RES energy generation infrastructure including the construction of a photovoltaic farm and other Supplementary units such as carports.
<b>5. ADVISORS BOARD</b> 160 000 SDT <sub>1</sub>	The pool of tokens for our advisors is partially transferred via air drop.
<b>6. TEAM</b> 80 000 SDT <sub>1</sub>	These tokens are dedicated to our exceptional team. They will be distributed during the last SDT <sub>1</sub> Distribution round via air drop.
<b>7. H<sub>2</sub> SYSTEM</b> 1.000 000 SDT <sub>1</sub>	Financing the construction of a unique system for converting energy produced by a PV unit into green Hydrogen, building a storage system and a test distribution station.
<b>8. LAB</b> 1.700 000 SDT <sub>1</sub>	To better understand and optimize how energy is converted into hydrogen, storage techniques and to work on many other programs, a modern building will be built and equipped with a full range of laboratories – LAB ONE. The research performed there will help build a modern power industry based On distributed generation sources and hydrogen technologies.
<b>9. EKOSYSTEM ECM</b> 2.000.0000 SDT <sub>1</sub>	Tokens transferred via air drop to the system responsible for running ITO LAB ONE. This is a contribution to the construction of a modern energy sector expressed by the ECM energy portfolio, joined by Future Solutions. By building further distributed sources of energy production, ECM will create an ecosystem that will influence the global perception of the energy sector. LAB ONE is the first project and the basic element of the platform. Together, ECM and SDT <sub>1</sub> will offer an innovative way of Using and looking at energy through the SDT <sub>1</sub> LAB ONE project and the entire ECM ecosystem.
<b>10. LIQUID RESERVE</b> 940 000 SDT <sub>1</sub>	A pool of SDT <sub>1</sub> tokens for adjusting the production value of LAB ONE in relation to the USD/PLN exchange rate. It also constitutes a liquid reserve securing the construction of individual stages. Unused tokens will be burned and will not be offered during the round.
<b>11. Frozen (locked-up) Reserve</b> 6.290.000 SDT <sub>1</sub>	The frozen reserve does not reflect the cost of constructing the LAB ONE unit. The pool of blocked tokens is intended to create a mechanism to enable self-financing and obtain a level of energy level to power LAB ONE. Thanks to the frozen reserve, the LAB ONE cluster will be both a producer and Consumer in the ECM ecosystem.

## PRODUCTION COST STRUCTURE OF THE LAB ONE UNIT





# Scholarship scheme





Future Solutions Research and Development Center intends to establish a system of annual scholarships and competitions for the brightest young talent.

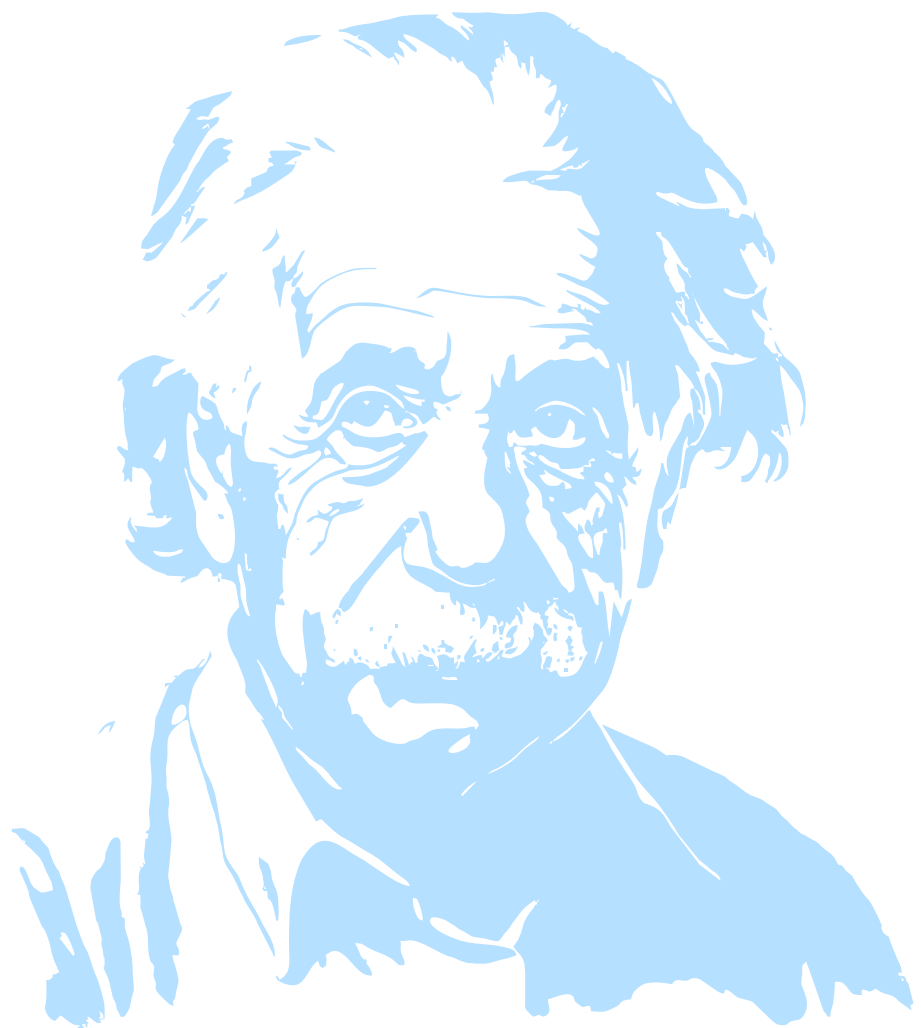
In this way, we would like to express our appreciation of the student community who, through their work and commitment, will have an impact on the future of humanity. We have decided to donate at least 1% of the funds obtained from the profits from the production of green energy in Future Solutions LAB ONE to this purpose. This mechanism will boost the value of the scholarship budget and increase the EC tokens obtained by the SDT, LAB ONE system originating from the generated energy and air drops of the frozen reserve.

With this aim in mind, a scholarship advisory board will be set up at the research center, who will decide on the form of the program and the topic of the competitions held. They will also draft the relevant regulations.

This is one method we intend to use to select future potential employees for the center and attract innovative technological input that takes a fresh new look at our area of our research.

In consultation with ENERGY COIN MARKET, selected start-ups will receive funding.

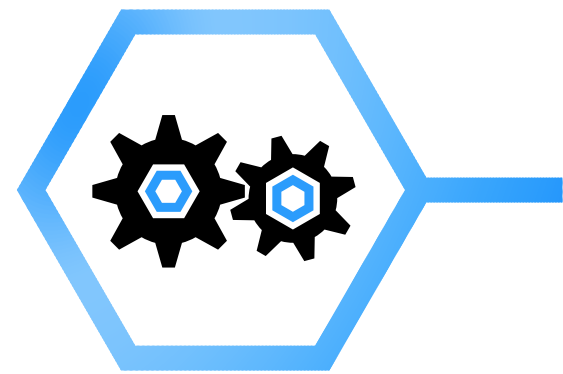
**Details at**  
**[www.cbrfs.com](http://www.cbrfs.com)**





**Future Solutions IT**  
**new energy solutions**

Future Solutions Research and Development Center has signed a letter of intent with a selected group of advisors, declaring the will to establish cooperation in software development projects corresponding to the directions of the FS RDC business profile. Within the scope of this cooperation, a limited liability commercial law company called Future Solutions IT will be established.



The selected advisory group comprises people with many years of experience in IT markets, who have cooperated with companies such as Intel, Ziaja, and been responsible for multiple projects in the VAG group and the VW Poznań factory. Partners with this kind of experience guarantee high quality systems for Future Solutions IT. The group of specialists will also be joined by experts and research workers from the Gdańsk University of Technology.

The first projects for FS IT will involve our own innovative e-Vision - a system for managing energy production and consumption processes in the form of Solaris Hydrogen energy clusters. Another system that the company will build is Jakub Goryszewski's self-designed platform intended for all participants of the energy market locally, in a cluster or otherwise. The TRON Platform will be responsible for matching the demand for energy from RES to the precise needs of users.

The platform's technology enables the use of advanced energy trading algorithms to buy surplus energy from the market, store it well in advance and sell it when the demand, and therefore the price, is high (energy consumption peaks). It will also ensure the possibility of inter-cluster digital energy exchange, which may significantly relieve the load on transmission networks.

## 8.1.

### **e-Vision - the heart of the energy cluster system**



e - Vision is a complete software package for energy clusters such as the Solaris Hydrogen system that integrates all requirements connected with the correct production, distribution and optimization of energy consumption. Thanks to full integration with dedicated hardware platforms (meters, monitoring sensors, electrolysis, fuel cells, gas co-generators, photovoltaic panels, wind and water production teams, etc.), FK Platforms and the



ability to work according to a cloud or an on-premise model, this solution offers quick and easy deployment and provides a complete solution for the Solaris Hydrogen power unit. Simply put, the e-Vision system controls processes of production, storage, expenditure and billing.

A comprehensive system of this type is addressed to small and medium-sized enterprises, energy clusters and individual households. Right from the word go, e-Vision was planned according to a prosumer model. Many mechanisms typical for commercial power engineering systems were abandoned, and instead a host of solutions were introduced to minimize the number of staff required by the energy producer to operate the system itself and deal with billing.

The e-Vision system is based on two fundamental elements:

### 1. Support for technical processes

- > e- Vision EMS
- > e- Vision SCADA

### 2. Support for business processes and energy management

- > e- Vision DSR
- > e- Vision MDM
- > e- Vision BILLING
- > e- Vision REPORTS
- > e- Vision CUSTOMER CLOUD
  
- > **e- Vision EMS** - in cooperation with scientists from the Gdańsk University of Technology, an integrated management system for energy production sources that supervises the technical state of the cluster
  
- > **e- Vision Scada** - a real-time system supervising Solaris Hydrogen automation. Its main functions include collecting current data on the operation of the entire Solaris Hydrogen solution, visualization of this data, process control and data archiving
  
- > **e-Vision DSR** - Demand Side Response helps you become proactive in terms of reducing energy consumption on the part of recipients and adapting to external needs as well as personal optimization
  
- > **e-Vision MDM** - helps efficiently acquire and manage data from smart and traditional electric and gas meters for the purposes of billing processes

- > **e-Vision Billing** - enables group as well as scheduled billing of gas-fueled electricity. The system is integrated with e-Vision MDM
- > **e-Vision Reports** - helps meet all the reporting obligations imposed on entrepreneurs by the regulator, but also facilitates, thanks to the handling of Big Data mechanisms, a better understanding of the processes and trends taking place within the Solaris Hydrogen system. Inference based on AI (artificial intelligence) mechanisms allows reports to be generated for even better management of energy production and consumption
- > **e-Vision Customer Cloud** - a dedicated package of on-line mobile applications that allow a Solaris Hydrogen user to monitor energy consumption and other utilities on an ongoing basis, as well as to operate meters and devices within a home network (smart home)..





# **ECM energy clusters and Future Solutions**



According to a document issued by the Ministry of Energy entitled "The Concept of Energy Cluster Operation in Poland", energy clusters represent a global trend towards building a modern energy economy based on ecological energy production technologies and nationalization of the use of resources. An energy cluster is based on the production of various types of energy, which may be considered to be the core of its business and the starting point for other operations such as distribution or trading. The main objectives pursued by energy clusters are:



- energy security
- reducing the energy consumption of the economy
- increasing the share of renewable energy sources in the national energy mix
- development of diverse energy sources
- improved power quality
- achieving a defined economic outcome
- making property development more attractive by reducing energy supply costs
- development of low-emission transport
- creating new business models

Although action taken was purposefully aimed at achieving individual or local goals, the greatest benefits were identified nationwide. This means that by using effects of scale, energy clusters can achieve goals of national importance. Future Solutions Research and Development Center LAB ONE in Gniewino is a kind of energy cluster solution. This unprecedented combination of energy production – from renewable sources combined with a green hydrogen production and storage unit, controlled by our own e-Vision process management tool, to powering our own research unit with a fuel cell stack and cogeneration – is an example of how to take advantage of new cluster solutions.

Therefore, Future Solutions intends to explore the possibility to develop and apply energy clusters in European markets.



**Legislation and regulations  
applicable to the  
ECM system**

The project run by Future Solutions Research and Development Center to construct a renewable energy generating unit with a green hydrogen production system and a laboratory team will be financed by a crowdfunding campaign via the Energy Coin Market system based on a tokenization program (ITO).

The agreement concluded between the companies states, that Energy Coin Market will conduct a tokenization program on behalf of R&D FS and on its account on ECM principles, and R&D FS LAB ONE will constitute the ecosystem research and development unit.

The legal structure is based on the regulations of the ECM ecosystem. SDT<sub>1</sub> LAB ONE primordial token will act as an legitimating symbol (prepaid coupon), confirming the conclusion of an agreement to obtain a free Air Drop from the part of the energy generated in R&D Future Solutions LAB ONE resulting from the power assigned to it (kW). Such agreement will be concluded by accepting the regulations on the ECM platform. The regulations resolved the following issues:

#### **The SDT<sub>1</sub> LAB ONE token and how it works:**

- > SDT<sub>1</sub> is a primary token confirming the conclusion of a contract and comes with a package of functions and privileges (prepaid coupon), operating in accordance with the principles of Energy Coin Market (DApp ECM smart contracts)
- > The SDT<sub>1</sub> token confirms participation in the tokenization program of the FS RDC LAB ONE research and production unit in Gniewino (energy cluster)
- > The aim of the SDT<sub>1</sub> program is to build a photovoltaic farm generating unit with a minimum 1.7 MW capacity, to create a set of electrolyzers adapted to the size of the farm and to construct a laboratory building of approximately 1300 m<sup>2</sup>, together with a cogeneration and hydrogen cell power supply system in accordance with the aforementioned principles
- > the funds obtained during the SDT<sub>1</sub> tokenization process cannot be used to finance any other project and will be spent in accordance with the principles of the investment





- > The SDT<sub>1</sub> program allows self-financing, subsidies and other types of grants. Any funds obtained in this way will be burned as an equivalent of SDT<sub>1</sub> LAB ONE tokens
- > The number of token is finite, defined, and amounts to 15. 730.000 SDT<sub>1</sub> which, according to the regulations, is fixed and cannot be changed
- > The total number of tokens presented for the SDT<sub>1</sub> LAB ONE ITO public offering is 7,200,000. This values the LAB ONE cluster at a maximum of USD 7,212,500.
- > The tokens allocated to the public offering set the project's hard cap at 7,200,000 SDT<sub>1</sub> LAB ONE
- > The project's soft cap is 2,900,000 SDT<sub>1</sub> LAB ONE
- > The SDT<sub>1</sub> LAB ONE token will be listed on exchanges cooperating with the ECM ecosystem
- > The amount of EC tokens issued within the LAB ONE system strictly corresponds to the amount of energy generated per unit in accordance with the following:

$$\Sigma \text{ amount of energy generated in kWh} = \Sigma \text{ amount of EC tokens issued}$$

- > ECM DApp smart contracts will send the generated energy represented by the EC token via free air drop

$$\text{EC / SDT}_1 = \frac{\Sigma \text{ number of EC tokens generated}}{\Sigma \text{ number of SDT}_1 \text{ LAB ONE system tokens}}$$

- > The EC token is the unit used to obtain the utility value of the energy produced
- > The SDT<sub>1</sub> LAB ONE token will represent part of the production capacity of the LAB ONE cluster in Gniewino expressed in kW. The minimum kW power per SDT<sub>1</sub> LAB ONE token is calculated according to the following:

$$\text{SDT}_1 \text{ LAB ONE / kW} = \frac{\Sigma \text{ production capacity of the LAB ONE unit}}{\Sigma \text{ number SDT}_1 \text{ LAB ONE tokens issued}}$$

- > For the LAB ONE unit, the amount of power per SDT<sub>1</sub> LAB ONE token is 0.000108 kW. This is the minimum level of power per token. If an EU grant or other form of non-refundable subsidy is obtained, tokens with a value equal to this subsidized amount that have not been placed on the market will be burned. This provision ensures that, in the event of obtaining non-refundable financing, the value of power per token will increase. A similar situation will occur if energy production increases as a result of the production of hydrogen from sewage treatment plant waste, which will boost the power capacity of the unit. An important element influencing the production efficiency of kW power is cogeneration. Thanks to hydrogen technology, two types of electricity and heat may be produced within the cluster from available power. Both will be reflected by the EC token in kWh.
- > EC tokens obtained by air drop as a result of LAB ONE's participation in ECM ecosystem clusters will be distributed according to the following:

$$\text{EC Air Drop / SDT}_1 \text{ LAB ONE} = \frac{\Sigma \text{ obtained EC Air Drop}}{\Sigma \text{ quantity of SDT}_1 \text{ LAB ONE tokens}}$$

- > The nominal EC value for SDT<sub>1</sub> LAB ONE projects will be determined each time at the time of its issuance based on the following:

$$\text{EC nominal value} = \frac{\Sigma \text{ value of LAB ONE energy produced}}{\Sigma \text{ amount of EC generated by the SDT}_1 \text{ token (amount of energy produced in kWh)}}$$

This allows the value of energy in kWh to be related to its type (E thermal, E electric, green hydrogen) and to the energy prices of the region where it was generated. This also enables the value of co-generated energy to be referred to the SDT<sub>1</sub> LAB ONE token

- > FS RDC shall be required to draft a quarterly report on the results in order to determine the nominal value

- > Since the SDT<sub>1</sub> program (investment) is run in Poland, the nominal EC value in classic currency will be accounted for in PLN and then converted into USD according to the average exchange rate of the National Bank of Poland on the day preceding the issue of the EC token
- > In the case of EC exchange at the ECM/EXCHANGE, ECM/STORE, the token is "burned"
- > In accordance with the White Paper, the SDT<sub>1</sub> token shall be listed on cryptocurrency exchanges and its price regulated by the classic mechanism of supply and demand
- > Ultimately, ECM shall provide access to the TRON Energy Exchange Platform, where the EC token may be exchanged for energy in another location or medium and value in the Internet of Things (IoT)
- > The SDT<sub>1</sub> token will have a "burn" function to destroy the token when the contract expires. This depends on the lifespan of the energy generation system and in the case of SDT<sub>1</sub> it is set at no less than 15 years starting from the first day of production (as outlined in the White Paper) and specified according to the parameters of the generating unit
- > The Energy Coin Market system imposes on FS RDC a ban on encumbrance, pledging, alienation or any other form of activity that could reduce the production capacity of the LAB ONE unit in Gniewino and thus reduce the value obtained from energy production in relation to the value of the issued SDT<sub>1</sub>, LAB ONE and EC tokens
- > Energy Coin Market imposes an obligation that the Future Solutions LAB ONE Research and Development Center unit in Gniewino be insured for a value not less than the value of the issued SDT<sub>1</sub> tokens (replacement value)
- > Energy Coin Market imposes the obligation to draft quarterly reports on the results achieved by FS RDC, in particular those achieved from energy production and so-called ecological profit (potential CO<sub>2</sub> emissions saved by the unit)

The LAB ONE Future Solutions production and research unit in Gniewino, in accordance with the intention of Energy Coin Market, is a project that in its essence aims to contribute to the decarbonization of the economy and generally assist in improving the global ecological situation.

## Risc factor

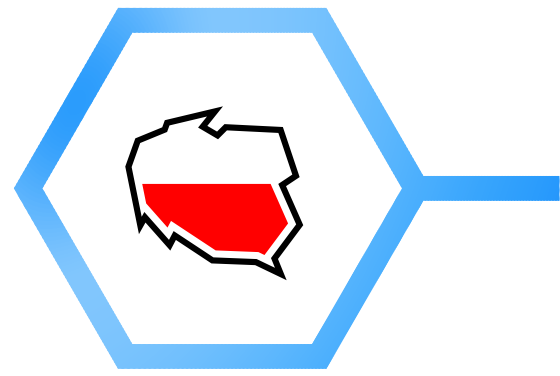
Economic activity based on blockchain technology and digital assets is inextricably linked to certain risk factors, i.e.:





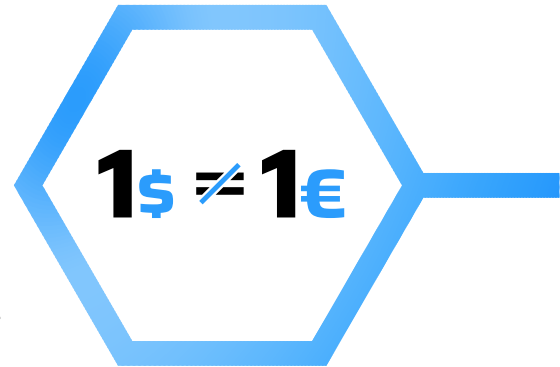
## Legislative risk

All business entities, including Energy Coin Market, depend on the legislation of a given jurisdiction. Since the ECM ecosystem is a form of cross-border business, it is obliged to constantly monitor changes in legislation and to adapt to the current legal situation.



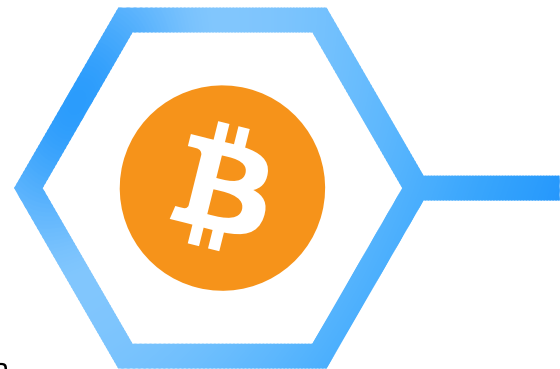
## Exchange rate risk

As an innovative and cross-border business, the Energy Coin Market ecosystem is based on the value of a kWh. This value varies by country, or the way a given energy generating unit operates. Therefore, to minimise exchange rate risk regarding the energy value and its conversion as fiat currency, the US Dollar has been adopted as the main FIAT currency. In addition, the functionality of the system has been supplemented with elements such as ECM/STORE or the TRON platform enabling the usable function of energy excluding the need to convert it into various classic currencies.



## Cryptoasset investment risk

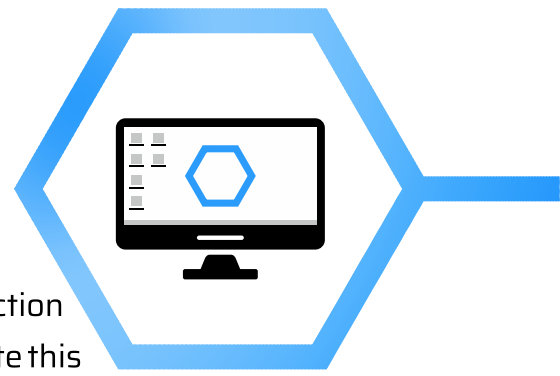
Investing in crypto assets is always associated with speculative risk or the risk related to the evolution of legal regulations. Since the base jurisdiction of ECM is Poland, we provide a link to the website of the entity responsible for market surveillance (KNF), where the risks associated with the purchase and trading of crypto assets are indicated.



<https://www.knf.gov.pl>

## Software risk

The Energy Coin Market platform is an innovative tool in the construction phase, when errors or short-term interruptions may occur. To mitigate this risk, the software will be developed in stages, and this process has been entrusted to one of the most experienced developers.



## Third party risk

Business activity based on blockchain digital technologies carries the risk of third-party interference. To mitigate this risk, the ECM ecosystem will operate in one of the most secure blockchain environments based on double-chain architecture: Binance Chine and Binance Smart Chine based on the BEP-20 standard.



## Legal and fiscal (tax) risk

Energy Coin Market is not responsible for the end user's tax and legal settlements. The user is personally responsible for fulfilling all legal and fiscal requirements applicable to the user in connection with the use of the platform or the use of cryptocurrencies within the scope of exchange or as a means of payment, in particular for submitting appropriate declarations and making appropriate settlements. The user acknowledges that Energy Coin Market does not make any tax deductions from the user nor pays any taxes on the user's behalf.





**Roadmap - LAB ONE**  
**cluster construction project**



## STAGE I

- Establishment of the Centrum Badawczo Rozwojowe Future Solutions sp. z o. o. commercial law company in April 2022
- Cooperation agreement with Energy Coin Market
- SDT<sub>1</sub> LAB ONE White Paper - March 2023
- ECM air drop
- Acquisition of a construction plot in Gniewino partially paid for by the SDT<sub>1</sub> LAB ONE 2023
- Conceptual design for the unit 2022-2023
- Detailed costing for the project 2023

## STAGE II

- Public offering - sale of the SDT<sub>1</sub> LAB ONE token - January 2024
- Listing - February 2024
- Design 2024

## STAGE III

- Construction of the photovoltaic farm installation 2024
- Connecting up the power 2024
- Start electricity production 2024
- First EC token issue (generated energy value) 2024

## STAGE IV

- Construction of the laboratory building and installations to produce green hydrogen along with the necessary infrastructure 2024
- Installation of laboratory equipment and IT server 2024-2025
- Implementation of the e-VISION production process management system 2024
- 

## STAGE V

- Launching green hydrogen production 2024
- Final acceptances 2024
- The operation up and running 2024



**Roadmap**

**SDT<sub>1</sub> LAB ONE ITO token**

1. SDT<sub>1</sub> LAB ONE white paper prospectus ✓
2. Adapting the ITO to EU jurisdictions and ECM ecosystem rules ✓
3. SDT<sub>1</sub> LAB ONE token encoding in Bep-20 ✓
4. Closed network testing ✓
5. ECM security audit ✓
6. Implementation of portfolio and AML/KYC - XI 2023 ✓
7. ECM starter air drop - XI 2023
8. Early Bird - XII 2023
9. LAB ONE design work - 2023/2024
10. ECM presale - XII 2023
11. Fulfillment of the listing terms and conditions - II 2024
12. Listing on selected exchanges - III 2024
13. Advisors and team air drop - III 2024
14. ITO round 1 (property and premises) - II 2024
15. Property and premises acquisition - II 2024
16. ITO round 2 - III 2024
17. e-Vision - 2024
18. Construction of the LAB ONE power supply unit - 2024
19. Start of energy production and date of first ECs issued - 2024
20. ITO round 3 - 2024
21. Construction to begin on the LAB ONE laboratory - 2024
22. Construction to begin on the h2 system - 2024
23. Adjustment of the liquid reserve level - 2024
24. Liquid reserve - 2024
25. Target operations up and running - 2025





**About us**



**Weronika Kosecka** - CEO of Energy Coin Market, Future Solutions R&D Centre, 10+ experience in the recycling industry. Promoter of a pro-ecological and healthy way of life, actively participates in helping Third World countries, and together with her husband is an ambassador for the decarbonization of everyday life and fresh environmentally friendly technologies. In her free time, an avid traveler.



**Roland Kosecki** - Co-Founder of Energy Coin Market, 10+ experience in the recovery, recycling and ecology industry, believer in the raw material cycle



**Bartłomiej Okoń**- Co-Founder, specialist in creating business models and commercialization, director general manager of Future Solutions R&D Centre, author of Solaris Hydrogen's low-emission concept. Co-founder of Future Solutions IT, ECM, Master of Economics at the University of Gdańsk, International Markets and Global Economy, Economic Analysis, 20+ professional experience.



**Jakub Goryszewski**- energy specialist at Future Solutions R&D Centre. MBA, 20+ experience in IT (design, implementation, sales, ERP, Business Intelligence) 10+ experience in energy and R&D projects. Co-author of the Hydrogen Technology Cluster and clean energy technology concept and R&D of the Energa Group, co-creator of Solaris Hydrogen.



**Dorota Janusz** - Public Relations specialist, 16+ in customer relations, brand building, social media marketing expert.

**Dr Mirosław Włas** - researcher at the Gdańsk University of Technology, assistant professor at the Faculty of Electrical and Control Engineering, head of the Laboratory of Intelligent Energy Molanote LAB-6.

**Tomasz Forc** - Energy advisor, MBA 20+ experience in IT, main specialist at Energa Operator (implementation of multiple IT systems for the Energa Group).

**Tomasz Bajorek** - IT specialist at Future Solutions Research and Development Centre. Master of Economics at the University of Gdańsk Foreign Trade and Master of Science at the Gdańsk University of Technology, 15+ experience in IT Google, Intel, design, implementation, sales, creator of many IT systems in the VAG group and automation of the VW Poznań production line,

**Edyta Forysiuk** - specialist in real estate management. She graduated from London Metropolitan University with a Master of Arts in Management and a Bachelor of Arts in Business and Management, Hons. Her impressive professional achievements include key positions in renowned companies.

**Izabela Karkowska** - She is a graduate of Military University of Technology in Warsaw, specialist in chemistry field. Profile: chemical rescue and dangerous substances, gas purity analysis in CBR FS. She has a work experience in Polish Gas Company in Department of Measurements and Telemetry. Additionally, she was an intern at University of Helsinki (Instrumental Analysis) and Institute of Organic Chemistry PAN in Warsaw (Catalytic Asymmetric Synthesis of Isoindolinone).



# Cooperation







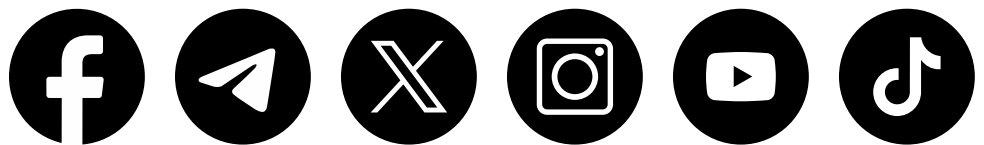
# LAB ONE

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