HEMELIOS

Whitepaper

November, 2019

Summary

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You will find important legal information in section 5 of this white paper.

Abstract

The HEMELIOS token (HEM) is a digital currency designed to maximize the alignment of interests of developers and investors through the implementation of an original and innovative mechanism based on economic incentives. We believe this mechanism designed to run indefinitely is unparalleled in other crypto projects and in the financial sector in general.

In a few words, this mechanism ensures by its design the sane and solid structure of HEMELIOS token (HEM). On the one hand, the developers are not entitled initially to receive any HEMELIOS token (HEM), on the other hand, the developers will be entitled to receive new minted HEMELIOS token (HEM) if and only if the value of tokens appreciate substantially from its initial phase.

It’s a paradigm shift for the concept of token creation. Usually token creation dilutes former investors, here this effect is structurally different thanks to the token design: the price of the token must necessarily rise substantially for a new token issuance to take place. Thereby HEMELIOS token (HEM) is, by design, a breakthrough innovation which defends, objectively and above all, the interests of investors.

To ensure the integrity of this mechanism, terms and conditions will be directly hard coded inside the HEMELIOS’s smart contract and safe-guards will be set up to prevent any and all deviation from this aim.

1. Context

1.1 Development of Blockchains and tokens

The adoption of Blockchain technology is not simply a temporary trend or fashion, but a firm and continuous shift towards a new paradigm: an easier, quicker and more transparent financial world based on mathematics, economics and computer science.

This adoption leads to new possibilities including the development of tokens: units of value that exist on a blockchain and can represent anything (e.g. a digital currency, a right to access a service, ownership of a tangible or intangible asset, etc.). Tokens offer multiple benefits including the capability to program value.

Thanks to this possibility, we now have the ability to design new economic incentives that do not exist in conventional finance. Far from resting on what has been done so far in the crypto ecosystem, our team wants to push the limits: our goal is to develop a new economic incentive which is, by design, disruptive.

1.2 Design of a new economic incentive

The value of cryptocurrencies and tokens is determined by the market as most of them are quoted on exchange platforms to ensure liquidity to investors. Nevertheless, an important and increasing amount of cryptocurrencies and tokens have little to no liquidity. More importantly, there is a lack of value appreciation over time.

One of the reasons for this downturn is how these instruments are designed: the economic incentives of developers are not truly tied to those of investors beyond the initial stage.

In light of these elements, we decided to launch the HEMELIOS project and create a new kind of token called HEMELIOS token (HEM) backed by the Ethereum blockchain and designed as a breakthrough innovation. It is a revolution in the crypto world, breaking with older design of tokens in order to defend, above all, the interests of investors through a mechanism described in the following pages of the whitepaper.

2. Token Design

2.1 HEMELIOS presentation

HEMELIOS token (HEM) will be issued using a smart contract that meets the requirement of the ERC-20 standard in order to be easily interoperable within the ecosystem (e.g. be listed on exchange platform, be used for payment, etc.).

Initially, 50 000 tokens will be issued and kept in reserve by Hemelios project. These tokens will be gradually and slowly offered for sale on exchanges.

As we have said earlier, the value of cryptocurrencies and tokens is determined by the market through the use of exchange platforms. Our token is no exception to the rule. However, we hard-coded, inside the smart contract, an original and innovative mechanism to economically incentivize developers if and only if the token's value appreciates significantly, in line with the investors interests.

This mechanism could be simply explained as follows: every time the price of HEMELIOS token (HEM) on exchanges reach a new level, 500 new tokens are minted and distributed equally among the addresses of the developers. A level can be defined as a certain price to reach in order to trigger the next minting process. The minting process related to a level can only be triggered once and only once. (cf. 3. Continuous Crowdsale Details)

The price of HEMELIOS token (HEM) used to unlock a new level is determined using a price index which is an average price obtained by aggregating the prices of HEMs quoted on different exchanges. This price index is fed to the smart contract using an oracle. (cf. 2.2 Implementation of an Oracle)

It is important to note that the number of levels is non-finite. This design choice was made on purpose to ensure that the developers are continuously economically incentivized over the long term.

Furthermore, from an investor's point of view, this mechanism has been designed to closely link token issuance and token performance. The minting process is indeed closely linked to the multiplication of the original price, valued in US dollars, of HEMELIOS token (HEM). We believe this is unheard of in crypto and even in the financial ecosystem in general and that it will be to the greatest benefit of investors.

This unique and innovative concept creates a win-win situation from the short term to the very long term horizon. This concept will open a new path in token design for the future, based on a token issuance price function (price increase factor) instead of a token issuance time function (either initially or at a later stage during the life of the token).

In no event shall the developers, the Hemelios project, or any of its members, directors, stakeholders, consultants, agents or professional advisers shall have any liability whatsoever towards holders of HEMs.

In particular, there should be no expectation on the part of any holder of HEM that any work will be performed by the developers or the Hemelios project, or any of its members, directors, stakeholders, consultants, agents or professional advisers.

2.2 Implementation of an oracle

The use of an oracle is mandatory as smart contracts cannot access data outside the blockchain, such as a market price. Thereby, the oracle feeds the smart contract with external information (i.e. send a transaction when the token price reaches a new level) that will trigger the minting process.

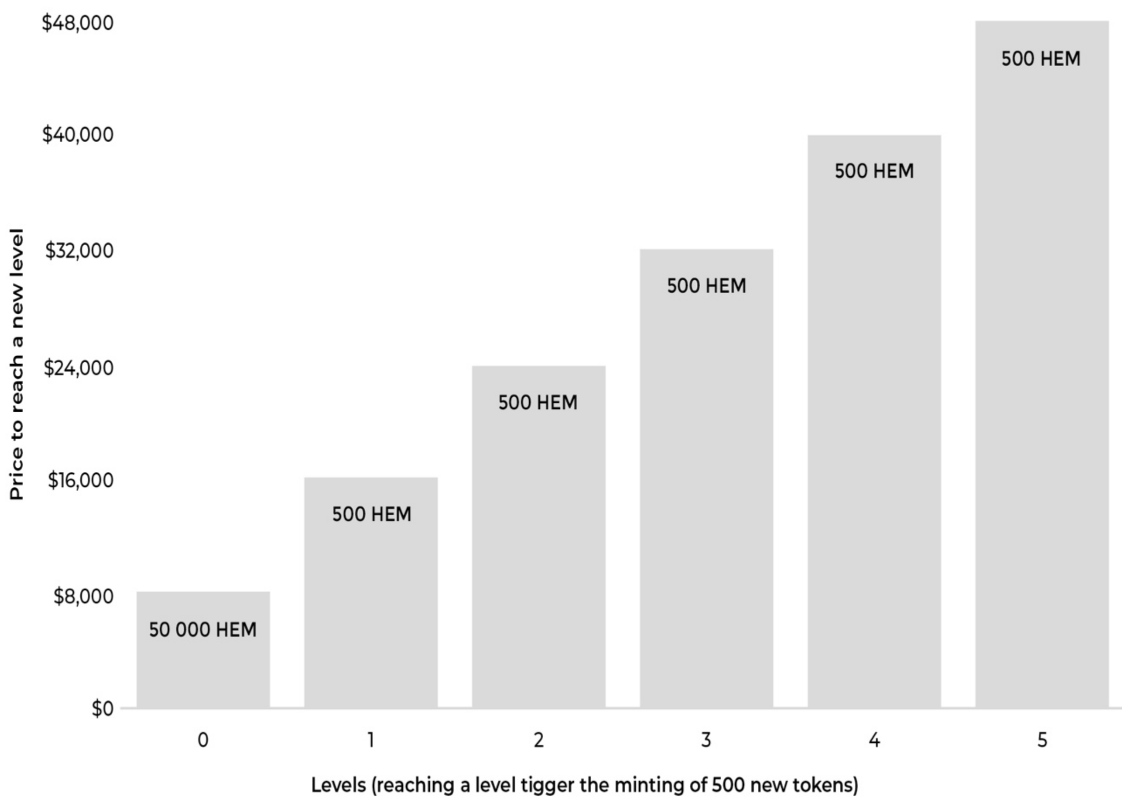
In order to ensure that these new tokens are only created when the token price reach a certain level, the minting process is triggerable only by an oracle, and to prevent misuse of the oracle, we have established safeguards.

3. Continuous Crowdsale Details

Before the Continuous Crowdsale, a private subscription is held for a single private investor. The price during the private subscription will be an HEMELIOS token (HEM) for one bitcoin.

After the private subscription, the HEMELIOS token (HEM) will be directly quoted on exchanges at a price to be determined at the time of the listing.

The interval between two levels is $8,000 as shown in the graph below.



The table below recapitulates levels for the minting of new tokens.

Level	Tokens Issuance	Total number of tokens issued	Price to reach to mint 500 new tokens	Comments
0	50 000	50 000		Minted at the deployment of the smart contract
1	500	50 500	$16,000	When the price on exchanges (using a price index) reach a new level, the oracle feed the smart contract with this external information to trigger the minting process of 500 new tokens. The interval between two levels is $8,000
2	500	51 000	$24,000	Same comment as above
3	500	51 500	$32,000	Same comment as above
4	500	52 000	$40,000	Same comment as above
…				
9	500	54 500	$80,000	Same comment as above
…				
99	500	99 500	$800,000	Same comment as above
n	500	50 000 + n*500	(n+1)*8,000	Same comment as above

As you may have noticed on the graph and table above, developers will be incentivized for the first time when and only when the price of HEMELIOS token (HEM) has roughly doubled from its original price (16,000$ is the first level to reach). Which means that developers will only be rewarded if investors reap significant profits.

The code of the smart contract is publicly available at this address: 0x19747816a030fecda3394c6062cdf6b9b4db0e0b

https://etherscan.io/address/0x19747816a030fecda3394c6062cdf6b9b4db0e0b

4. Conclusion

The mechanism behind the HEMELIOS token (HEM) is an original and innovative way to create a virtuous circle to promote the sane development of the project which is aligned with long-term interests of investors.

Regarding the issuance policy of tokens, the Hemelios project decided to issue 50 000 HEMELIOS tokens (HEM) upfront. These tokens will be issued, kept in reserve and gradually offered for sale on exchanges. This practice is done in order to promote the scarcity of the token which is a determining factor to create momentum around the token and is in the best interest of investors.

Furthermore, as shown in the graph appearing in section 3, the Hemelios project has decided to issue only 500 new tokens for the developers per level to have as little a dilutive effect on investors as possible. This is the only mechanism, designed to run indefinitely, in place to economically incentivize the developers over the long term.

Hemelios project will act accordingly, if necessary, to keep an acceptable level of dilution at any new level reached, including the request of part of these new tokens to be burnt.

As said above, this mechanism is a breakthrough innovation that will open a new path in token design for the future, based on a token issuance price function (price increase factor) instead of a token issuance time function (either initially or at a later stage during the life of the token).

5. Legal

This document does not constitute an offer or an invitation to sell shares, securities or rights belonging to Hemelios project or any related or associated entity.

As described more in detail in section 6.1 below, an HEM is not a security. It is a crypto-currency that qualifies as a payment token as defined by the FINMA it its guidelines for enquiries regarding the regulatory framework for initial coin offerings, as published on 16 February 2018.

The Hemelios project does not act as a derivative provider within the meaning of Article 3 paragraph 3 of the Stock Exchange Ordinance (*Ordonnance sur les bourses et le commerce des valeurs mobilières – OBVM, 2 December 1996*).

The Hemelios system is not a market within the meaning of the Financial Market Infrastructure Act -FMIA (*Loi fédérale sur les infrastructures des marchés financiers et le comportement sur le marché en matière de négociation de valeurs mobilières et de dérivés – LIMF, 19 June 2015*)

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(iii) any resulting action that may be brought.

Hemelios project may not be held responsible for any tax or charges a buyer of HEM may have the obligation to pay in its residing country with respect to the purchase, ownership or sell of an HEM.

Neither the developers nor the Hemelios project, nor any of its members, directors, stakeholders, consultants, agents or professional advisers shall have any liability whatsoever towards holders of HEMs.

In particular, there should be no expectation on the part of any holder of HEM that any work will be performed by the developers or the Hemelios project, or any of its members, directors, stakeholders, consultants, agents or professional advisers.

5.1 Nature of HEMs

An HEM does not represent an investment

In a security or a financial instrument within the meaning of FMIA and EU Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 relating to markets in financial instruments: HEMs confer no direct or indirect right to Hemelios project's capital or income, nor does it confer any governance right within Hemelios project.

An HEM is not proof of ownership or a right of control

Control over an HEM does not grant the controlling individual any asset or share in Hemelios project. An HEM does not grant any right to participate in control over Hemelios project.

HEM is not an electronic currency

Within the meaning of EU Directive 2009/110/EC of the European Parliament and of the Council of 16 September 2009 relating to access to and pursuit of the business of electronic currency institutions: HEMs do not represent a claim on the issuer which is issued on receipt of funds for the purpose of making payment transactions and HEMs are not accepted outside the Hemelios system.

HEM is not a payment service

Within the meaning of EU Directive 2007/64/EC of 13 November 2007 relating to payment services in the internal market, nor within the meaning of EU Directive N° 2015/2366 of the European Parliament and of the Council of 25 November 2015 relating to payment service 2 (DSP 2): Hemelios project's business does not consist in receiving currencies against the delivery of HEMs; as such, an HEM is not a means of payment either.

HEM is a cryptographic token used by the Hemelios system

An HEM is a crypto-currency, i.e. an unregulated, digital asset, designed by its developers and issued by the Hemelios project and used and accepted by the members of a given community. It qualifies as a payment token as defined by the FINMA it its guidelines for enquiries regarding the regulatory framework for initial coin offerings, as published on 16 February 2018.

5.2 Risk factors

Acquiring HEM and storing them involves various risks. Therefore, and prior to acquiring HEMs, any user should carefully consider the risks, costs and benefits of acquiring HEMs in the context of the crowdsale and obtain any independent advice in this regard.

Any interested person who is not in the position to accept or to understand the risks associated with following risks must not acquire HEMs. By purchasing, holding and using HEMs, you expressly acknowledge and assume the following risks:

Risks Associated With the Ethereum Protocol

HEMs are based on the Ethereum protocol. Therefore, any malfunction, unplanned function or unexpected operation of the Ethereum protocol may cause HEMs to malfunction or operate in a way that is not expected. Ether, the native Ethereum Protocol account unit, may itself lose value in a similar way to HEMs, and also in other ways.

For more information on the Ethereum protocol, see http://www.ethereum.org

Risks associated with the buyer's credentials

Any third party that obtains access to the buyer's credentials or private keys may be able to use the buyer's HEMs. To minimize this risk, buyers must protect themselves against people gaining unauthorized access to their electronic devices.

Legal risk and risk of adverse regulatory intervention in one or more jurisdictions

The operation of HEMs may be impacted by the passing of restrictive laws, the publication of restrictive or negative opinions, the issuing of injunctions by national regulators, the initiation of regulatory actions or investigations, including but not limited to restrictions on the use or ownership of digital tokens such as HEMs, which may prevent or limit development of the HEMELIOS project.

Given the lack of crypto-currency qualifications in most countries, each buyer is strongly advised to carry out a legal and tax analysis concerning the purchase and ownership of HEMs according to their nationality and place of residence.

Risk of theft and piracy

Hackers or other malicious or criminal groups or organizations may attempt to interfere with the availability of HEMs in several ways including, but not limited to, denial of service attacks, Sybil attacks, mystification, surfing, malware attacks, or consensus-based attacks.

Risk of security weaknesses in the HEMELIOS system's core infrastructure software

The HEMELIOS core software is based on open source software. There is a risk that the Hemelios project, or other third parties, may intentionally or unintentionally introduce weaknesses or bugs into the core infrastructure elements of the HEMELIOS system, by interfering with the use of, or causing loss of, HEMs.

Risk of weakness or exploitable breakthrough in the field of cryptography

Advances in cryptography, or technical advances such as the development of quantum computers, may present risks for crypto-currencies, which could result in the theft or loss of HEMs.

Risk of a HEM mining attack

As with other decentralized cryptographic tokens and crypto-currencies, the blockchain used for the HEMELIOS system is vulnerable to mining attacks, including but not limited to, dual-expense attacks, powerful mining attacks, selfish mining attacks, and critical competition attacks. Any successful attack poses a risk to the HEMELIOS system, the expected performance and sequencing of markets, and the expected performance and sequencing of Ethereum contract calculations. Despite the best efforts of the Hemelios project, the risk of known or new mining attacks exists.

Risk of a Tight Market for HEMs

There are currently no exchanges or trading facilities on which HEMs can be traded. If such exchanges or trading facilities do develop, they will probably be relatively new and subject to poorly understood regulatory oversight. They may therefore be more vulnerable to fraud and default than the established and regulated exchanges that exist for other products. Should exchanges or trading facilities that represent a substantial part of the HEM trading volume be involved in fraud, security failures or other operational problems, the failures of such exchanges or trading facilities may limit the HEM value or liquidity.

Risk of an Uninsured Loss

Unlike bank accounts or accounts in other regulated financial institutions, funds held through the Ethereum network are generally uninsured. At present, there are no public or private insurance agents providing buyers with coverage against a loss of HEMs or a loss of value.

Risk of winding-up of the Hemelios project

For a number of reasons including, but not limited to, an unfavorable fluctuation in Bitcoin value, an unfavorable fluctuation in HEM value, the failure of business relationships or competing intellectual property claims, the Hemelios project may no longer be a viable activity and may be dissolved or simply not launched and the HEM may have no value.

Unforeseen risks

Crypto-currencies and cryptographic tokens are a new, untested technology. In addition to the risks stipulated above, there are other risks that the Hemelios project cannot predict. Risks may also occur as unanticipated combinations or as changes in the risks stipulated herein.

5.3 Governing law and arbitration

Any dispute or controversy arising from or under the crowdsale shall be resolved by arbitration in accordance with the Swiss Rules of International Arbitration of the Swiss Chamber of Commerce in force on the date when the Notice of Arbitration is submitted in accordance with these Rules. The arbitration panel shall consist of one arbitrator only. The seat of the arbitration shall be Lugano, Switzerland. The arbitral proceedings shall be conducted in English.

The HEMELIOS project is Bitcoin friendly.