

# GSU PROTOCOL

White Paper v. 1.05

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## Bringing the Next Gen Stablecoin

More stable than any fiat currency



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# 1. Summary

1. GSU | Protocol issues [GSU coin/ꝰGSUc](#) stablecoin;
2. It is an overcollateralized CDP lending protocol;
3. It accepts ETH, wBTC, qualified USD and EUR stablecoins, etc. as collateral;
4. Its stability is further supported through sustainable ecosystem incentives;
5. It actively engages and contributes to the wider open-source Ethereum ecosystem;
6. It collects stabilizing and beneficent fees embedded at the protocol level;
7. It ensures better price stability than any fiat currency, due to its soft peg to the GSU rate, and is the official CDP protocol for the [Global Stability Union](#) organisation.

## 2. World view

### 2a. History/Background

The GSU rate now offers the solution to a monetary problem that has vexed all those engaging in international transactions, or who are otherwise exposed to currency swings, for as long as they have had to navigate a troublesome world marked by differing monetary systems, asking:

#### **Will my funds retain their value? What are the stabilizing mechanisms in place?**

Old-style currencies were based upon precious metals, and the Gold Standard built around the pound sterling brought about a Golden Age of international currency stability all the way up until World War I.

The cataclysms of the two World Wars eventually upset this market model. The victorious Allied Powers convened in the small town of Bretton Woods, New Hampshire, USA, in 1944 to agree a new international monetary system. The outcome was a solution in which most of the world's various currencies had a fixed exchange rate to the US dollar, and the US dollar was then pegged to gold - a sort of global gold standard by proxy.

This agreement established the US dollar as the **point-of-value-reference** globally. This unique position as the issuer of the reference currency gave the US dollar dominance and was notably labelled by the French government as "**the exorbitant privilege.**"

Then, 27 years later, in 1971 the United States arbitrarily decided to abandon the agreement reached in Bretton Woods and cancelled the convertibility of the USD into gold - eliminating the agreed standard for exchange stability. This self-centred move brought about the current system of volatile exchange rates, while retaining the position of the US dollar as the point-of-value. As US Treasury Secretary John Connally correctly remarked at the G10 Rome meeting in December of 1971: "**The dollar is our currency but your problem.**"

### 2b. A New Type of Stability

On a global scale, the world faces a series of existential threats, a fast-changing geopolitical landscape and economic uncertainty. It is the mission of the GSU Protocol to provide a tool - the GSU coin - to our users which gives them the monetary stability and transaction efficiency to proceed further towards their chosen goals, whether they be personal prosperity or the greater societal good.

The GSUc's mission is a contemporary reflection of the principles enunciated in the US Declaration of Independence (1776): *"all men are created equal ... endowed by their Creator with certain inalienable Rights, that among these are Life, Liberty and the pursuit of Happiness."* However, in our understanding the *equality* should be shared by all people, while recognizing the circumstances and location of the individual.

For too long, one's prospects have depended upon the economic/financial environment into which one happened to be born, but the GSUc now offers an opportunity to provide equality of opportunity, of prospects (note: *not* of results) to all.

We believe that, regardless of where you live, you should have access in the highest possible degree to monetary stability and transaction efficiency. Ensuring that sort of level playing field is the best tool for empowering the individual to achieve prosperity and his/her life goals.

## **2c. Protecting against inflation**

The price-stability of the  $\alpha$ GSUc also provides a cushion to inflation in prices denominated in any one currency, and as such reduces the risk of that affecting the whole of the ecosystem. Current US inflation almost at 9% is obviously a problem to the users of USD-pegged tokens. (As per May 2022 U.S. inflation was reported at 8.6%, <https://www.usinflationcalculator.com/inflation/current-inflation-rates/>)

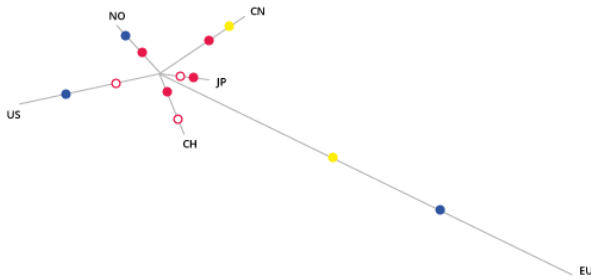
Holding part of one's crypto assets in  $\alpha$ GSUc will protect against decreasing purchase power.

## **2d. Overcollateralisation and market stability**

Issuance of the  $\alpha$ GSUc through the GSU Protocol is based on overcollateralisation of locked crypto-assets, such as ETH and wBTC, as well as leading USD and EUR stablecoins. This means that the protocol always has quality collateral exceeding the value of the issued  $\alpha$ GSUc ensuring security buffer, even in times of financial tension. This combined with its well-balanced incentive-structure for market actors limits collateral exposure and the associated liquidation risks.

## **2e. Protocol Shift**

Our journey started some 5 years ago with the successful deployment of an off-chain oracle producing an exchange rate that performed with lower volatility compared to traditional "stable" fiat reference assets. Since then, we have been monitoring this rate to understand its reliability and potential use-cases, and to eventually offer it to a wider ecosystem and beyond.



Centre of exchange rate gravity (UK)

We see the GSU | Protocol as an independent, crypto-backed, blockchain-agnostic, censorship resistant tool that lifts the sustainable scalability limits of the existing stablecoin market.

**The GSU | Protocol:** is the **CDP issuance/lending protocol** for the Global Stability Unit (GSU) pegged stablecoin (ꝰGSUc).

It reflects actual underlying economic activities between countries and currencies;

It is not based on direct agreements between banks, brokers, or exchanges;

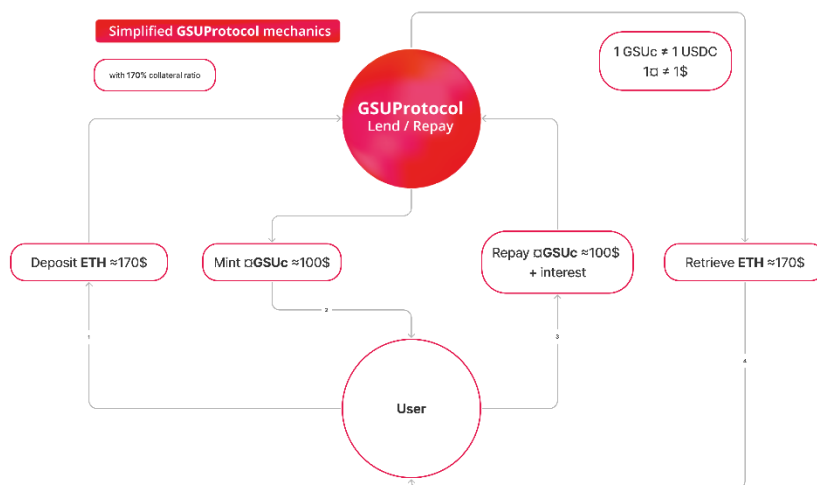
It is not a rigid currency-peg controlled by a central bank.

Instead:

It is a crypto-native stable exchange rate that can substantially ease exchange-rate instability;

It optimally reduces volatility and the risk of disorderly exchange-rate movements;

It is an over collateralised crypto-asset which, due to that fact, incorporates a substantial financial buffer to ensure security and survivability even in adverse market circumstances.





## Introducing Global Stability Unit (GSU)

*A new type of balanced exchange rate that serves everyone equally with stability.  
A fair exchange rate for all.*

### Tl;dr

- Reducing the Web3 ecosystem dependency on \$USD.
- Underlining the importance of protecting purchasing power.
- Providing for stable cross-border activities and international payments.
- Countering long-lasting consequences of volatility. The risk of a currency-peg controlled by a central bank.

<https://medium.com/@GSUcoin/introducing-global-stability-unit-gsu-5ffb3c9c0157>

We want to establish the **αGSUc** as the world’s most stable digital unit, outperforming the US dollar and any other fiat or crypto currency with regard to price-stability. Using the **GSU soft-peg** we can reduce exchange-rate risk and associated costs by more than 50% globally. This has been empirically and academically documented.

UNIVERSITY OF COPENHAGEN  
DEPARTMENT OF MATHEMATICAL SCIENCES

To whom it may concern



#### On the matter of the digital unit GSU

31 MARCH 2017

I can confirm that the volatility analyses have been conducted correctly, using data representing +80% of global trade volume, and that they confirm that the GSU assures a reduction of global exchange rate volatility of more than 50%.

I can confirm that this reduced volatility is achieved through a new type of exchange rates, which are in alignment and correctly calculated.

Further, I can confirm that this new type of exchange rates are fully functional and can be operated in actual practice to existing fiat currencies.

Yours sincerely,

Rolf Poulsen  
Professor of Mathematical Finance

<https://www.globalstabilityunion.org/media/1222/cph-uni-gsu-march-2017-201912.pdf>

## 2f. Ecosystem effects

This ecosystem has evolved tremendously over the past few years, with some stablecoins having grown to significant sizes. However, the stablecoin space is still today almost 100% dominated by USD-reference tokens. This leaves their users vulnerable to fluctuations in the US dollar's value against other currencies, and as the USD is not the native currency of most users in the ecosystem, this is a problem to the ecosystem itself.

By contributing this new, superior price-stability, we strengthen the whole ecosystem by providing a unit from which, via integration, every single other protocol can potentially benefit.

The entry of the GSUc Protocol Mechanism will ultimately be beneficial to a number of markets, including that of stablecoins generally and various protocols (e.g., other CDP, lending, yield, etc.). It will broaden their scope, at what can be visualized as “both ends”:

### Output:

Presently, stablecoins resulting from CDP operations peg themselves to the US dollar, resulting in a risky skew that leaves their holders vulnerable to that currency's fluctuations and inflation. In contrast, the  $\alpha$ GSUc, which results from the GSU CDP protocol and its soft-peg to the GSU rate, functions as a stability mechanism across all currencies, a common denominator of stability enabling a degree of risk-spread away from the USD rate in a parallel structure of stability.

### Input:

Current CDP protocols are limited in the sort of crypto assets they will accept as collateral in exchange for the issue of their own stablecoins. In contrast, it is the  $\alpha$ GSUc protocol's intent to broaden the types of accepted cryptocurrencies by developing methods to eventually be able to securely adopt as many liquid crypto-assets as possible as collateral. From the start we will accept all leading USD and EUR stablecoins alongside ETH and wBTC.

### *Metamorphosis*

From the original Maker protocol towards global financial stability and thereby prosperity, without the dominance of any single financial point-of-value: **Together.**



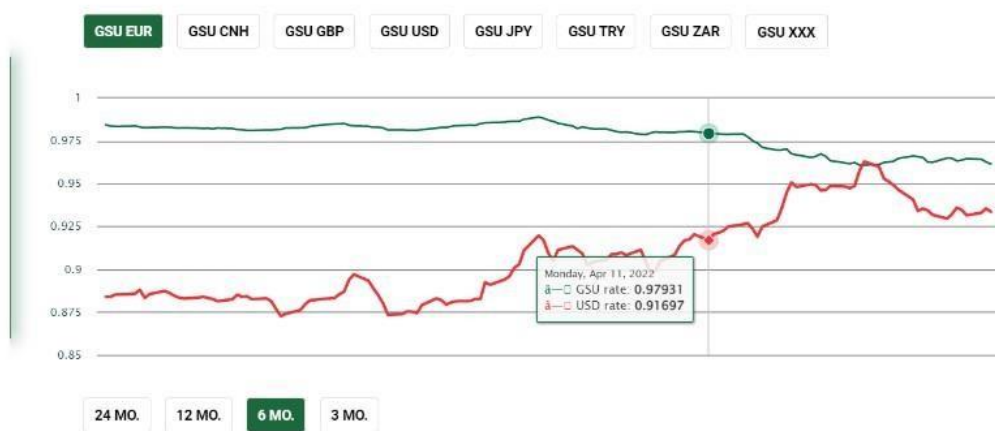
### 3. Advantages

The benefits presented to users of the  $\alpha$ GSUc can be broken down according to advantages with respect to two separate alternatives:

#### 3a. Vs. Fiat Currencies

Although the GSU exchange rate is crypto-native and based on a plurality of world economic data, all calculations based on that are run “in the engine room.” This means using it provides the same simple experience as when using traditional digital fiat currencies. Here are its benefits in the fiat-currency world:

**Price Stability** (first and foremost): The GSU is designed to be the world’s most stable unit of value. Since its value is based around the center of exchange rate gravity, holders will find that with the  $\alpha$ GSUc they can better retain value, on an international basis - even in the face of the usual currency fluctuations. Measured on a global scale the  $\alpha$ GSUc provides a >50% reduction of exchange risk. As risk equals cost, using the  $\alpha$ GSUc means lesser cost.



GSU to EUR

Explore the rates & Introduction to GSU below:

<https://gsu.io/fiat> <https://gsu.io/crypto> <https://medium.com/@GSUcoin/introducing-global-stability-unit-gsu-5ffb3c9c0157>

**Convenience of transfer:** The  $\alpha$ GSUc is easily sent or received via any EVM wallet-app or on-line market. Blockchain technology means direct, peer-to-peer settlement: no intermediaries. The counterparty - no matter what the location - receives the completed transaction without delay.

**Low cost:** Transactions on blockchain can sometimes feel cumbersome and expensive. As the offering expands, we will be adding support for different Ethereum scaling solutions that will bring the cost of transfers to a fraction of the transaction prices today.

$\alpha$ GSUc is the first crypto to beat any fiat currency in price-stability.

### **3b. Vs. Other Cryptocurrencies**

Although they have already attracted many hundreds of thousands of users and investors, cryptocurrencies are still in their infancy in relative terms, even the oldest and best-known, namely Bitcoin (BTC) and Ethereum (ETH). This is evident from one simple fact: cryptocurrency valuations are mainly taken with respect to some traditional fiat currency (predominantly the USD), rather than against any other cryptocurrency.

This makes the  $\alpha$ GSUc particularly advantageous within this sphere. In the first place, it offers a hedging alternative similar to that traditionally presented by fiat currencies, but then additionally within the crypto-to-fiat paradigm, which is even better. Here are its benefits in the cryptocurrency world:

**Stability:** Holdings in  $\alpha$ GSUc offer those with a cryptocurrency portfolio a safe haven in which they can retain their portfolio's value no matter their native currency, e.g., during a period in which the user deems cryptocurrency volatility to be excessive.

**Security:** At the same time, those with holdings in  $\alpha$ GSUc are assured of the continued existence and value of those holdings, due to various security measures we incorporate. These include the Protocol's overcollateralisation aspect as well as its Security Module.

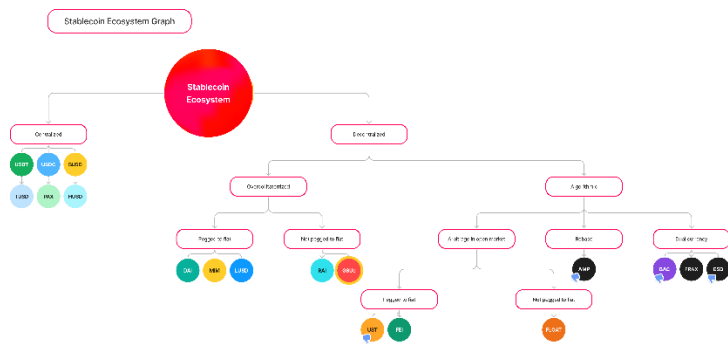
**Flexibility:** The fact that the  $\alpha$ GSUc will be convertible to increasingly more cryptos offers the broadest array of options to users seeking to re-enter cryptocurrency markets. We are planning incentive structures and partnerships that will ensure deep liquidity against ever-more tokens.

**Ease of Use:** Transactions into and from cryptocurrencies generally share the speed/convenience attributes already cited above in the case of fiat currencies. Payment service providers can help alleviate any short-term struggles involved in paying for IRL goods with crypto. Our plan is to create partnerships across-the-board to ensure exchange fluidity.

**Broadening of Scope:** The vast majority of stablecoins peg themselves to the US dollar. In contrast, the  $\alpha$ GSUc is designed to provide stability worldwide, across all major currencies.

The  $\alpha$ GSUc can serve the existing DeFi ecosystem with provable stability applied in prediction markets and stablecoin arbitrage. It can also act as a store of value or hedge against volatile markets. Inclusivity and financial independence are at the core of the protocol values. We believe that there is a need for a transparent, immutable, and globally stable unit that can become a means for trade, based on level-playing-field competition, enabling personal independence and monetary stability that is censorship-resistant. The implications and use-cases that arise from this are limitless. For example, in the online/crypto space, usable tokens for the gaming industry can be provided by using the GSU's state-of-the-art stable rates for their in-game currencies.

Last but not least, a direct link to the physical world, through which you could make use of  $\alpha$ GSUc to pay for goods and services, is very important for mass adoption. Merchants could benefit from conducting transactions through a unit that provides them with stability, and which does not require them to pay for transaction processing but rather pays them for  $\alpha$ GSUc usage.



## 4. Markets

### 4a. Individual Use

*A stable token for the crypto market*

Two young professionals have become intrigued by cryptocurrencies and have started to invest in them. Soon they realized how risky they are; they want to relay some or all of their committed value into a safe haven when the crypto market becomes more volatile. The  $\alpha$ GSUc is that crypto safe haven, which offers them stability and ease-of-mind no matter where they live (what their domestic fiat currency is) or what may be happening elsewhere.

### *Remittances*

A head-of-household travels from Turkey to Germany to earn wages. Most of that money must be sent back to the family, to maintain that connection, provide support and ensure children's upkeep. They want the money to retain its value across the Euro-to-Turkish lira conversion; while maintaining a fast, efficient means to send it. The  $\alpha$ GSUc offers both.

### *Value protection*

A head-of-household in Turkey is hit hard by sudden losses in the value of the lira (as it has in fact experienced since QIII of 2021). This devaluation means that imported goods essential for everyday life become much too expensive. The  $\alpha$ GSUc is an ideal way to protect purchasing power for any individual or family living in countries with unstable currency regimes.

### *Daily use*

Meanwhile, a teenager, highly cyber-aware, likes the convenience of being able to send small monetary amounts to friends via smartphone. Since the stability of the GSU to any local currency is solid, holding value in fiat or  $\alpha$ GSUc is more-or-less the same – while the convenience of  $\alpha$ GSUc services and could well tip the scale in favour of using  $\alpha$ GSUc.

### *Professional travellers*

This professional traveller couple knows their itinerary will continuously take them to a number of countries, each using different currencies. They choose to hold the stock of traveling-money they allot for taking care of cash expenditures in  $\alpha$ GSUc. That way, the cross-currency value of the remaining money is always kept as stable as possible. When they arrive someplace new, they simply change the amount they think they need into the new local currency. Indeed, the cross-currency value of the money is stable for as long as they keep it in  $\alpha$ GSUc. Even after the business trip ends, they might just keep any remaining amount in  $\alpha$ GSUc as a readily available stash for the next time they are called out on the road.

## **4b. Business Use**

### *Business*

A large Japanese electronics manufacturer is well aware of its exposure to developments in world trade and the currency markets, as it exports far more of its devices than it sells in its home market. Dealing in æGSUc assists considerably in stabilizing both the international payments received and those it is contracted to make.

### *Investor*

A savvy business owner wants to further expand company's operations. In the modern world, this often involves cross-border activities, incurring exchange rate risk. As this is not under individual control, they prefer to reduce it as much as possible. This is where the æGSUc comes into play.

### *Countering government unreality*

One international entrepreneur recognizes the pressure building up on the currency-peg a government is trying to maintain for its currency. The Central Bank insists on a certain rate for its currency versus a reference fiat currency, but the economic fundamentals clearly do not justify that. So, money is flowing into/out of the country in a very destabilizing way. It is only a matter of time before that peg is re-adjusted or abandoned – but when, exactly? With the æGSUc, that is not a concern for the user. By holding that, they are cushioned against such adverse currency movements, whenever they do come.

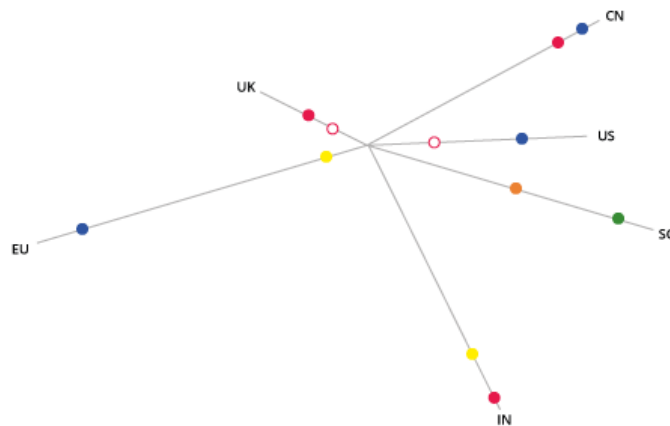
### *On-line network*

An executive at a globally-operating on-line communications network fully shares company's ambition to conquer the world, winner-take-all. But there are other players in the industry who are also determined to be that winner. The competitive struggle is likely to hinge on gaining the massive advantage of assured price stability – namely setting prices in GSU, something that makes it easier for customers everywhere to buy.

## 5. Method/Rate Calculations

The price-formation mechanism of the GSU rate is based on the plurality of actual underlying data and not only a single-factor pricing model operating directly between two parties. It is based on bilateral trade volume and capital flows between countries.

First, we identify the point-of-balance (POB) for any given country which provides the optimal stability for that given country/currency.



*Centre of exchange rate gravity (BD)*

We use this method to assess the POB of the largest nations individually to then identify what we call the global center of exchange rate gravity (G).

Our calculations are based on an analysis of volatility measurements pertaining to 80%+ of global trade volume across the 30+ largest nations and their 35 largest trading partners, including fluctuations in the relations between their national currencies. These analyses represent the ~1000 most important trade relations in the world and are updated continuously to calculate price as a function of the GSU unit in real time.

### The calculations of the GSU exchange rate include:

- Import and export volume of goods and services
- Remittances
- Foreign Direct Investment (FDI)
- Other capital flows

⇒ We call it **The Global Monetary X-Ray**.

We assess the risk for price swings by using the Garman-Kohlhagen formula, measuring volatility rather than focusing on nominal rates. From there we analyse the impact factor, which is a model for weighted volatility, and this way we are able to determine the global centre of exchange rate gravity, which is the target rate of the  $\alpha$ GSUc.

The GSU system continuously monitors shifts in the worldwide centre of exchange rate gravity as capital-flows between any two countries change and the value of their currencies fluctuates. It is updated on an ongoing basis, so that it maintains its stabilizing function.

The result: the GSU is the world's least-fluctuating unit of exchange, outperforming the US dollar and any other fiat or cryptocurrency. Using the GSU soft-peg can reduce exchange-rate risk and associated costs by more than 50% globally. This has been empirically and academically documented in collaboration with University of Copenhagen Department of Mathematical Sciences.

## 6. Tokenomics

CDP protocols are one of the few segments in the crypto ecosystem with a well-documented and stable pricing model. Pricing of a CDP protocol most often ranges between 11%-22% of Total Value Locked (TVL).

Introducing the GSU | Protocol, based on a fork of the most trusted stablecoin provider, we aim within the first 12 months to reach a TVL equal to 50% of the leading [Maker](#).

This will be achieved through strong ecosystem incentives, to Users and AMM's, while at the same time partnering with the other protocols. As we issue a GSU reference token, and not a USD reference token, we will not be in competition with the other protocols, but rather represent an opportunity for collaboration and growth.

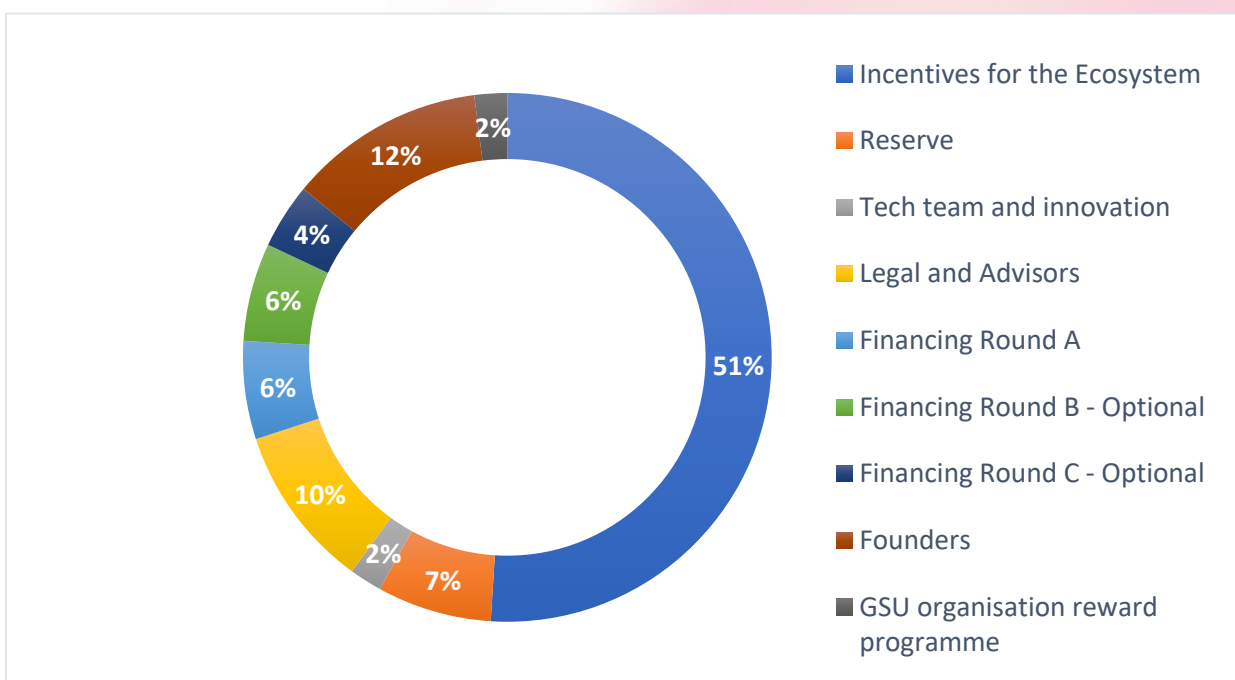
**Start date** : June 28, 2022

**GSU Protocol token symbol** : GSUp

**Contract address** : 0xb5D38B20411F2336e6772229359A4af528499b9b

**Supply** : 1,000,000,000

**Allocations are:**





## 7. Contact

### Issued by:

GSU Protocol Lab ApS (DK reg. 41808691)

<https://www.gsuprotocol.io>

Twitter: [@GSUcoin](#)

Medium: [@GSUcoin](#)

Telegram: [gsu\\_coin](#)

GitHub: [gsu-protocol](#)

Discord: [GSU | Protocol](#)

Email: [hello@gsuprotocol.io](mailto:hello@gsuprotocol.io)

### In partnership with:

Global Stability Union (DK re. 33280726)

<https://www.globalstabilityunion.org/>