

DigiGulden whitepaper – version 1.0
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The DigiGulden, what, where and how?

The DigiGulden is risen from the idea to create a currency for the future, a future of finance that is completely independent of the current banking systems, safe and open for everyone to use.

Creating a new currency is quite easy, getting people to use and accept it is the difficult part. This means that most of the work and most of the challenges lie in building on gaining the support of the end-users, people willing to use it as a currency and people accepting it as a payment option.

We have created the DigiGulden, its fully functional and ready for adoption. As the name suggests, it's a currency tailored especially for the Dutch citizens, although borders do not exist in crypto space, we choose to tailor the DigiGulden especially for the Dutch market as we think this gives us the ability to focus on working towards the acceptance of the DigiGulden as a currency.

The Netherlands is used often by big multinationals to pilot their ideas or products because the population is relatively small (+/- 17 million) and at the same time it has good facilities which are essential for a successful (product)launch. Although the Netherlands is quite small in terms of land area, the Netherlands sits in the top 20 of countries ranked on the GDP metric. This means it's a very large economy and will therefore be the perfect market for the DigiGulden to grow to its full potential.

The DigiGulden is minted, and will run on the worldwide Radix network, the Radix technology roadmap states that their final release (version Xi'an, planned for 2024) will be capable of processing thousands of cheap transactions per second while operating fully decentralized. Radix is therefore the only technology / network capable and safe enough for the DigiGulden to be used as a daily means of payment by the 17 million Dutch citizens.

The total supply is fixed at 2.550 billion tokens. This number is tailored for the Dutch market. According to the "ALLIANZ GLOBAL WEALTH REPORT 2021", the average Dutch citizen has a net worth of roughly 150.000 EURO as of the end of 2021. We chose to keep the same order of magnitude for the DigiGulden. Meaning that for all +/- 17 million Dutch citizens, 150.000 DigiGuldens are minted. This makes a total of 2.550 billion DigiGuldens.

Tomorrow's currency

We used 'best practices' based on lessons learned over the last couple of centuries to design tomorrow's currency. Looking at history, currencies were created, used and became obsolete. This was more often than not caused by inflation numbers spiraling out of control as a result of mismanagement by governments / institutions. So, it's clear that inflation should be kept in check, but there is a lot more that can be improved in the current status quo.

DigiGulden was created with the following principles in mind;

No-one can print more DigiGuldens and dilute the supply

History teaches us that other currencies lost their trust when certain individuals, companies, institutions or governments misused their power to dilute the supply. This basically gives 'some' an unfair advantage over the many. We therefore think it's an absolute requirement that all users are equal, and no-one has the power to dilute the supply, we have therefore chosen to freeze the number of DigiGulden Tokens in existence, this supply will not be changed ever.

DigiGuldens must be spread among the population

One of the most essential things for end-users to accept 'anything' as a good and valid currency, is to have the ability to possess or acquire a fair and meaningful amount of it for themselves.

To illustrate this better; if the world would switch tomorrow to gold to use as 'currency', people would not support this idea if someone already acquired 80% of all gold in the world for themselves. This would be an unfair advantage to start with and it would result in gold not being accepted by most users. If, on the other hand, everyone would be able to gain an equal part of the whole gold supply in the world, acceptance for using gold as currency would be far larger.

Because of this, it's essential to not only push as much as DigiGuldens in circulation as fast as possible, but also that this is done in such a manner that no-one is left out and everyone has a fair and equal opportunity to acquire a meaningful amount of DigiGuldens. This is achieved by keeping the price low and limiting the amount that can be bought.

The DigiGulden foundation will steadily raise the price of the DigiGulden, inversely proportional to the amount of DigiGuldens still available for bringing into circulation. The goal is to bring 55% of the total supply in circulation and emit the remaining 45%, over a period of 40 years for free, via staking rewards on our DigiGulden validation server. This server is hosted in the Netherlands, is active as a validator node and actively participating in the Radix consensus. Via this mechanic the DigiGulden foundation guarantees a fixed and stable yearly inflation of 1,5% over a 40-year period and at the same time participate in keeping the Radix network safe.

The reason why the foundation is controlling the price point (in a stable upward trend) to reach the 55% circulation number is that projects during the startup phase usually have a relatively small market capitalization. This makes them an easy target for price manipulation that can be misused to initiate pump and dump schemes. By controlling the price and being transparent about it upfront in terms of supply and timing, we hope to minimize the possibility of price manipulation by anyone.

As soon as 55% of all DigiGuldens is brought into circulation, the market capitalization will be sufficient at that point. The foundation will not sell any DigiGuldens anymore and let the market determine the price of the DigiGulden.

Possession and use of the DigiGuldens should be permissionless and trustless

One of the great foundations of (most) crypto projects is that the network/chain does not discriminate, meaning that there is not a central entity (company and/or government) having power users need to trust.

Using DigiGulden for payments is trustless as there is no single entity, person or government that is in control, meaning you don't have to trust anyone to keep your assets safe and to process your transactions. These are all safeguarded by the combined consensus mechanism of the Radix network. This means that no-one can freeze or cancel your account (wallet) and no-one can stop you from using DigiGulden. This obviously is in stark contrast with the current banking system where banks and governments have full control over your assets.

The DigiGulden must be in accordance with the authorities and regulations

Our main goal is to make sure DigiGuldens are available and accepted as a means of payment. It's therefore very important we fully align with local authorities and local rule and regulations to make this happen. This is also the reason why the DigiGulden foundation is registered as "Stichting DigiGulden" in the Netherlands.

Transactions must be cheap and fast

For a payment system to have the right to exist, it should at least offer the same basic functionality as the current FIAT based payment systems. This means that 'the system/platform' should be able to process thousands of transactions per second, offer almost instant transactions and feature low transaction costs.

This all sound relatively easy but these requirements proved to be quite difficult to achieve while being fully decentralized. When we look at bitcoin for example, the transaction capacity (and therefore costs) lacks behind because the whole system is very decentralized and thus very safe. Bitcoin lightning offers the transaction capacity but achieve this via a side chain which is less decentralized. In a nutshell, gaining in one metric always hurts performance in the other, it has been proven very difficult to offer full capability in all three metrics: high capacity, low costs and highly decentralized. This problem is known as "The Trilemma".

This is where Radix is changing the game and brings the necessary innovations to the crypto space. Radix approach is solving this trilemma offering transaction capacity, low costs while operating fully decentralized. This outlook makes Radix the perfect platform to service the DigiGulden.

Inflation should be positive and stable

Inflation by itself is not a bad thing when its stable and at a healthy level. Inflation is essential to keep a currency healthy. When for example there is a negative inflation in a system - called deflation - it often means its relative valuation goes up. This results in users that won't spend their assets as the

relative value it represents will be higher tomorrow than today. This effect is limiting economic growth.

When inflation is too high - often caused by diluting the supply - consumers might lose trust in the currency. When the value of a currency will be far lower next year, this hurts the buying power and therefore one's economic strength.

To make sure that when 55% of all DigiGuldens are brought into circulation, inflation will be at a healthy and stable level, the DigiGulden foundation will emit the remaining 45% of the DigiGuldens for free as staking rewards for people delegating stake at the DigiGulden validation node.

DigiGuldens must be accepted as a valid means of payment

The most important requirement for any currency is that it can be used to pay for goods and services. This means DigiGuldens should be accepted as a means of payment. This is basically a "chicken and egg" problem. Why would anyone choose for a currency if they cannot use it to pay for goods and services? What is the incentive for suppliers of goods to start accepting a currency if almost nobody has them in their possession?

This is where the DigiGulden foundation comes into play, as stated above, the foundation will be selling DigiGuldens and thus generating income. All revenue will be used to

1. Making sure all Dutch citizens will be aware of the DigiGulden
2. Help and encourage retail to accept payments in DigiGulden

Distribution of DigiGuldens.

The total supply is set to 2.550 billion DigiGuldens. This number is fixed.

- 51,8% will be sold by the foundation
- 44,9% will be emitted for free via staking rewards over a 40-year period
- 2,5% is hold in 5 founder wallets and will be unlocked based on execution performance
- 0,4% is hold in day 1 investor wallets and will be unlocked based on execution performance
- 0,4% is hold in a Marketing wallet reserved for marketing spend

See below the distribution in more detail:

Bucket	Supply	Weight	Comment
Total supply	2.550.000.000.000	100,0%	Roughly 150.000 DigiGuldens minted per Dutch citizen.
Available to sell	1.320.600.000.000	51,8%	This will be available in tranches, supply and price per tranche.
40 year inflation (1,5%)	1.144.281.079.060	44,9%	This will be used to ensure a steady and healthy yearly 1,5% inflation.
Supply Founders	65.000.000.000	2,5%	Locked, unlock in steps, dependent on tokens in circulation.
Supply day 1 investors	10.000.000.000	0,4%	Locked, unlock in steps, dependent on tokens in circulation.
Marketing wallet	10.118.920.940	0,4%	This wallet is used for promotional activities.

Table 1: supply distribution

Pricing overview

Tokens will be available per tranche (bucket), every tranche is kept in a separate wallet, wallets will be unlocked when the preceding tranche is sold out. The supply and price of a tranche is inversely proportional to the previous tranche. The availability (in %) per tranche and pricing schemes will be real-time available on the DigiGulden website.

Below is a table with the tokenomics of the DigiGulden. The 2nd column represents the selling price in EURO per million of DigiGuldens. To give everyone a fair chance to acquire a meaningful amount of DigiGuldens, the first tranche has the biggest supply (3rd column) for the lowest price.

The second tranche will be active when the first is depleted. It will feature a lower supply and a higher price than the previous tranche, this goes on till the last tranche. When the 8th tranche is sold out, 55% of all DigiGuldens is brought into circulation.

The 4th column below states the unlock % of the founders and day-1 investor wallets. The wallets will be managed by a 3rd party (notary). The wallets are locked to incentivize the founders to focus on achieving predefined circulation goals which are essential for a successful implementation of the DigiGulden as a currency. This also limits the options of possible disruptions in pricing.

Tranche	Price per million in EUR	Millions supply	% unlock, locked wallets	Wallet ID
1	10	516.100	40%	rdx1qsp5qkr5pypzu0suzsaa6xrs2s0323d23kqnark3r4ayzqflwmjj5gg7vvt8
2	20	318.800	65%	
3	30	197.300	81%	
4	50	121.400	90%	
5	80	75.900	96%	
6	130	45.500	100%	
7	210	30.400	100%	
8	340	15.200	100%	

Table 2: tokenomics of the DigiGulden

Inflation via free stake emissions.

Next to the direct process of selling DigiGuldens, the DigiGulden foundation will also bring DigiGuldens into circulation via free stake emissions. To become eligible for these free DigiGulden emissions, one must allocate Radix stake to the DigiGulden Radix validation server or one of the partner validator nodes. An UpToDate overview of possible options will always be available on the DigiGulden website. In overview below you can see the amount of DigiGuldens reserved per year for staking rewards.

Staking rewards	supply	Inflation %	Wallet ID
Year 1	21.085.783.814	1.5%	rdx1qsp9jqj57f5qcxaea3mejc5vdze8tvxz0am0eh7e4ser8vw2t6vmnggvhqw0
Year 2	21.402.070.571	1.5%	
Year 3	21.723.101.630	1.5%	
Year 4	22.048.948.154	1.5%	
Year 5	22.379.682.377	1.5%	
Year 6	22.715.377.612	1.5%	
Year 7	23.056.108.276	1.5%	
Year 8	23.401.949.901	1.5%	
Year 9	23.752.979.149	1.5%	
Year 10	24.109.273.836	1.5%	
Year 11	24.470.912.944	1.5%	
Year 12	24.837.976.638	1.5%	
Year 13	25.210.546.288	1.5%	
Year 14	25.588.704.482	1.5%	
Year 15	25.972.535.049	1.5%	
Year 16	26.362.123.075	1.5%	
Year 17	26.757.554.921	1.5%	
Year 18	27.158.918.245	1.5%	
Year 19	27.566.302.019	1.5%	
Year 20	27.979.796.549	1.5%	
Year 21	28.399.493.497	1.5%	
Year 22	28.825.485.899	1.5%	
Year 23	29.257.868.188	1.5%	
Year 24	29.696.736.211	1.5%	
Year 25	30.142.187.254	1.5%	
Year 26	30.594.320.063	1.5%	
Year 27	31.053.234.864	1.5%	
Year 28	31.519.033.387	1.5%	
Year 29	31.991.818.887	1.5%	
Year 30	32.471.696.171	1.5%	
Year 31	32.958.771.613	1.5%	
Year 32	33.453.153.188	1.5%	
Year 33	33.954.950.485	1.5%	
Year 34	34.464.274.743	1.5%	
Year 35	34.981.238.864	1.5%	
Year 36	35.505.957.447	1.5%	
Year 37	36.038.546.808	1.5%	
Year 38	36.579.125.011	1.5%	
Year 39	37.127.811.886	1.5%	
Year 40	37.684.729.064	1.5%	