HEDGING INFLATION WITH

AGCOIN

Empowering the Undervalued Silver Industry With Blockchain Technology

Abstract

Combining silver, one of the oldest currencies on earth, an experienced team of miners and illiquid small scale silver mining operations with blockchain technology presents a unique opportunity to empower the silver industry, and its stakeholders, to extract the real value of this currently undervalued, but historically significant asset.

By creating continuous liquidity through the tokenization of silver reserves, orders and finally physical deposits backed by a trusted banking provider AGC presents a unique investment opportunity to participate in a paradigm shift that places the power back in the hands of the people.

AGC coin will run on a top of dAPP Vault like platform where users can interact with the AGC environment. Open orders or redeem silver, send, receive, borrow against, stake or swap AGC coin with other cryptocurrencies.

AGC runs as a custom Parachain, developed in Substrate with inherent security from the Polkadot Ecosystem. AGC offers a double staking mechanism where, apart from obtaining reward from lending, additional silver will be generated out of AGC silver mining operations. AGCoin's purpose is to provide perpetual value for the silver community and create a peer-to-peer payment ecosystem with access to the secondary market and pools of liquidity to unlock the inherent value of this historically significant asset.

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1. Introduction

Executive Summary

Rapid advances in blockchain technology are reinventing the way companies operate and deliver products and services to their clients extrapolating tremendous value in certain cases. These changes have been visible in the mining & metals industry, a sector that has been traditionally slow in adopting technological innovations, however, they have been focused on traditional products and have not been combined in a way to empower an entire community and its stakeholders.

The following whitepaper will describe a unique opportunity to apply blockchain technology to the undervalued silver market that will unearth real value for the silver community and all of its stakeholders.

"A joint venture partnership between an operating silver mine (and additional small scale mining operations), a consortium of premium vault and banking service providers and blockchain specialists. Connected under a Polkadot Parachain and backed by a multi-assets pallet connected to a Vault dApp."

The platform will provide silver holders with outstanding decentralized financial services, including a peer-to-peer payment ecosystem and other token incentivization. The AGC Enterprise vision goes beyond making silver a stable anti-inflationary hedging mechanism, by tokenizing the world silver in one place,

through diversified ownership while also being highly scalable. The vault stored commodities will be tokenized under AGC parachain, acting as a decentralized multi commodity exchange opening up a wide array of opportunities and options to empower the silver industry.

Our framework comprises two tokens, first a payment token ("AGCoin") with which the operating capital will be raised and second, an asset token ("AGToken") which is a digital representation of physical silver in the form of standard bullions. The AGCoin will be issued in stages as follows (MPS = Market Price for silver bullions at the time of issue; we assume that the price if USD 25/oz over the whole project):

In order to fully redeem the AGCoins into AGTokens, a total of 44,873 tons of silver will have to be produced. In phase 2 any silver mined after all AGCoins has been fully redeemed can be sold directly by issuing new AGCoins in line with the production of new silver. The price for new AGCoins will be determined at the time of issuance. Issuance will take place on an ongoing basis when investors are subscribing for AGCoins and silver is available to support the tokens. This will assist with price stability after full redemption of the initial offerings where AGCoins will be backed by physical silver at all times.

This structure will run on top of a Vault dAPP platform where users will interact with the AGC coin environment

connected to a double staking mechanism with returns generated out of silver mining operations and lending. Furthermore, AGC holders will be able to swap, send, receive and transact with AGC coin.

Vault Platform will be the primary marketplace for the AGC. Connected to a sophisticated application the silver community will finally be exposed to a paradigm market shift.

It is time for silver to emerge from its current, and unnatural position, as an undervalued commodity controlled by major corporations and return to its natural, and historical place, as a financial instrument, investment and inflationary hedge for the people that is front and center in the monetary and financial ecosystem. An asset for the people.

The AGCoin will be issued in stages as follows (MPS = Market Price for silver bullions at the time of issue; we assume that the price if USD 25/oz over the whole project):

Stage	Price/Token	Number of tokens	USD raised
1. Private Sale	MPS – 25%	97,689	2,000,000
2. Pre-Public Sale	MPS – 20%	293,067	8,000,000
3. Public Sale	MPS – 10%	595,833	20,000,000
Total	$76.992.000	986,589	30,000,000

History of Silver

Silver is one of the oldest elements humans have constantly admired across the world. It was first used as a currency four thousand years ago in Greece and is considered as one of the first currencies ever in use. It was traded for goods throughout the civilized world. From the drachma of the ancient Greeks, which contained an eighth of an ounce of silver to the Roman denarius and the British pound sterling, which designated a specific weight amount of the element, silver has long held a special place as a store of value. In the United States silver certificates could be redeemed for bullion or silver dollars. Then in the early 1960s silver rose to over a dollar, and it was not long before you could no longer redeem the certificates silver. The precious metal spans a variety of items ranging from jewelry, art, watches to religious artifacts, likewise have a broad industrial applicability within solar panel manufacturing, mobile phones, LED chips, medicine, batteries, touch screen and many others.

According to science silver and gold main origins are in stars explosion, gold from bigger ones, and silver from smaller ones, considered to be the rarest. . Silver's value has been proven as a precious metal and time-tested commodity. To sum up, silver served as money for thousands of years until the gold standard was introduced in the XIX century. Although not money, silver is used as an investment. Like gold, silver is a monetary asset, which may be used as a hedge or safe haven against tail risks. However, silver is much more widely used in the industry; therefore, it behaves more like a commodity and is more business cycle-sensitive than gold. Given its size and liquidity, silver is clearly a monetary asset, although not as attractive as another reserve currency - gold.

The impressive trading volume also explains why annual mining production (and its cost) the most important factor in silver's price formation is not (its equivalent is cleared during several trading days in the global silver market). Following the data from the LBMA latest press release published on 1 October 2020, as at end August 2020, there were a record 8,955 tons of gold, valued at a record high of $563.5 billion. This was the fourth consecutive monthly increase in the amount of gold held in London vaults (see final chart attached). There were also 33,390 tons of silver, valued at a record high of $29.4 billion. This equates to approximately 716,406 gold bars and 1,112,986 silver bars. The data represents the holdings of seven custodians offering vaulting services (all of which are LBMA members) and the Bank of England.

The price of silver, as each price, is determined by the market forces of demand and supply. The supply is the amount of a good offered for sale at each price. Therefore, the silver supply is the amount of silver offered for sale at each price. The silver supply in that sense should not be confused with the annual supply of silver, which comes from the mining production and recycling. In 2020, global silver production declined by 6% to 25,000 tons. Mexico was the largest silver producing country in 2020, according to the preliminary data released by the U.S. Geological Survey (USGS), global mine silver output was 25,000 tons in 2020, a 6% decline compared to 2019 (26,500 tons).

This drop in silver production was primarily associated with temporary shutdowns of mines in China, Mexico and Peru in response to the COVID-19 pandemic. Mexico was the largest silver producer (5,600 tonnes), followed by Peru (3,400 tonnes) and China (3,200 tonnes). Nine out of the top ten silver producing countries have seen a decline in their silver output, while one country (USA) increased its domestic silver production by 2%.

Top 10 silver producing countries, tonnes.
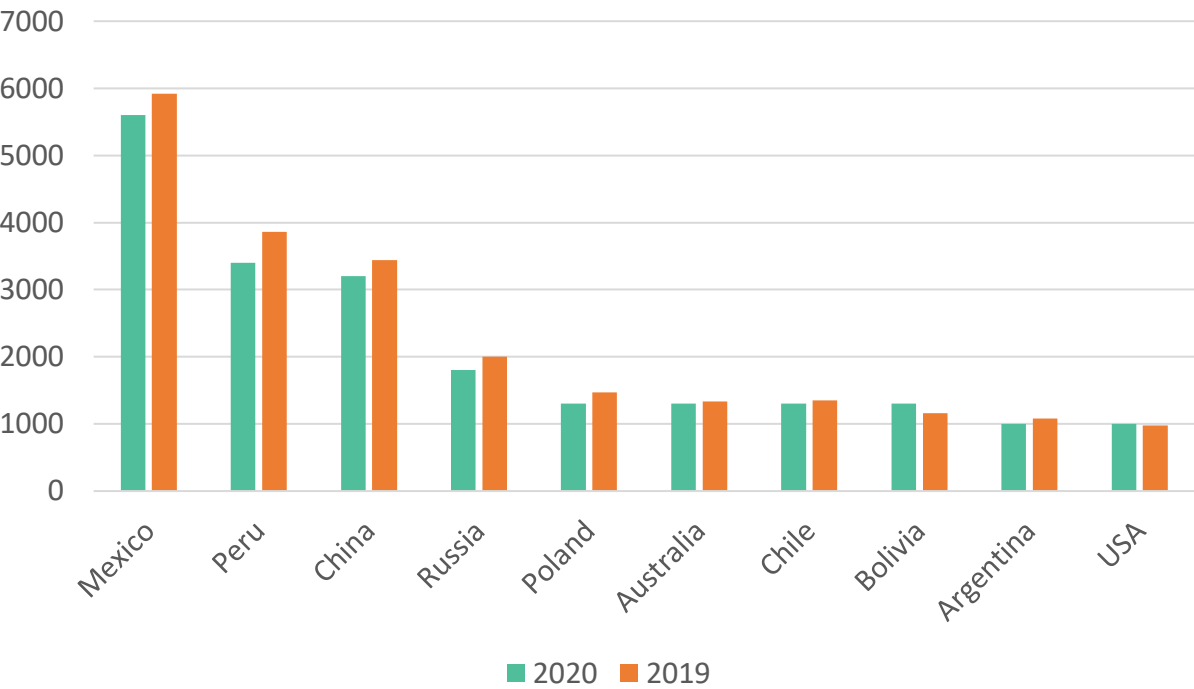
According to the USGS data, in 2020, global consumption of silver was estimated to have decreased slightly from that of 2019. Coin and bar consumption increased for the fourth year in a row. Consumption for industrial uses was estimated to have decreased in the first half of 2020 owing to lockdown restrictions in response to the COVID-19 pandemic, supply chain disruptions, lowered inventory replenishment, and reduced labor forces within factories. Jewelry and silverware consumption of silver was estimated to have decreased by 23% and 34%, respectively. Lockdown measures in key silver-producing countries are likely to affect mine supply tallies from this year, which could spur price growth.
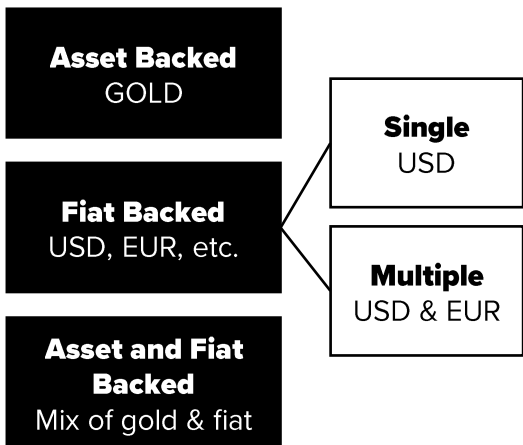
Stable coins today

Stablecoins are cryptocurrency that has been designed with the aim of minimizing price volatility. Exchange rate volatility (most commonly against the US dollar) places stablecoins in contrast with more volatile crypto assets like bitcoin, which lack any inbuilt price stability mechanism.

Significant volatility is one of the main reasons why many institutions and individuals have remained on the cryptocurrency sidelines to date, and stablecoins have been developed to address this issue. The level of interest and resources devoted to stablecoins is striking and indicates that stablecoins are viewed as a very important part of the digital assets ecosystem. Indeed, stablecoins are often thought of as a foundational or infrastructure layer, one that could significantly expand the crypto asset user base.

Asset-backed coins have been the more popular to date and represent 77% of all stablecoins. Further, some algorithmic stablecoins as part of their rollout strategy also incorporate asset-backing. Generally, asset-backed stablecoins are easier to bring to market and simpler in their design, particularly when they are 'traditional asset-backed' (eg USD, gold). More complex designs include MakerDAO's Dai stablecoin, which is 'crypto-asset backed' with ether (ETH) and other crypto assets. (Fig 01 Main Stable Coin Design Types).

Traditional Collateral: 33%

| Asset Backed |
| GOLD |

| Fiat Backed |
| USD, EUR, etc. |

| Single |
| USD |

| Multiple |
| USD & EUR |

| Asset and Fiat Backed |
| Mix of gold & fiat |

Crypto Collateral: 44%

| Cryptoasset Backed |
| ETH |

| Crypto and Fiat Backed |
| ETH & USD |

Algorithmic: 44%

| Algorithmic Backed |

| Fee Backed |

| Seigniorage Shares |
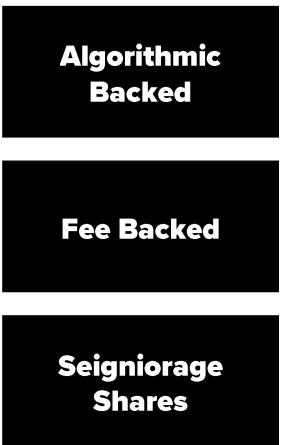
Pros and cons associated with traditional-collateral off-chain backed tokens.

Pros

- Demonstrated market demand and use: Tether's market value of $38 billion has been achieved despite of significant concerns around regulatory compliance, transparency and brand reputation

- Enforceable price floor: hard assets can be used to counter price instability and 'death spirals', which are a particular concern for some algorithmic stablecoins

- Trust: traditional asset-backed stablecoins enable traditional trust-enforcement measures (e.g., legal action); may be easier for some people to conceptualize and adopt

- Funding: asset-backed stablecoins have demonstrated strong fundraising appeal

- Simplicity: no complex inbuilt incentive structure as value exists in the collateral; no need for smart contract issuance / on-chain collateralization, meaning less engineering talent needed to implement

- Collateral flexibility: reserve can consist of one or many of the same type of asset (e.g., USD and EUR), or different assets (e.g., commodities, fixed income)

- Regulatory risk: banks can manage licensing, which is especially useful in the US given the fragmented nature of e-money regulations

Cons

- Centralized: requires trust in the issuer or escrow agents

- Inefficient: lacks automated monetary supply mechanism; may require manual redemptions processing

- Banking: requires partnership with a bank or escrow agent that holds licenses for deposits / reserves

- Limited peg options (e.g., fiat that the banks can easily manage)

- Compliance: possible risks from underlying fiat (KYC / AML, security rather than utility token)

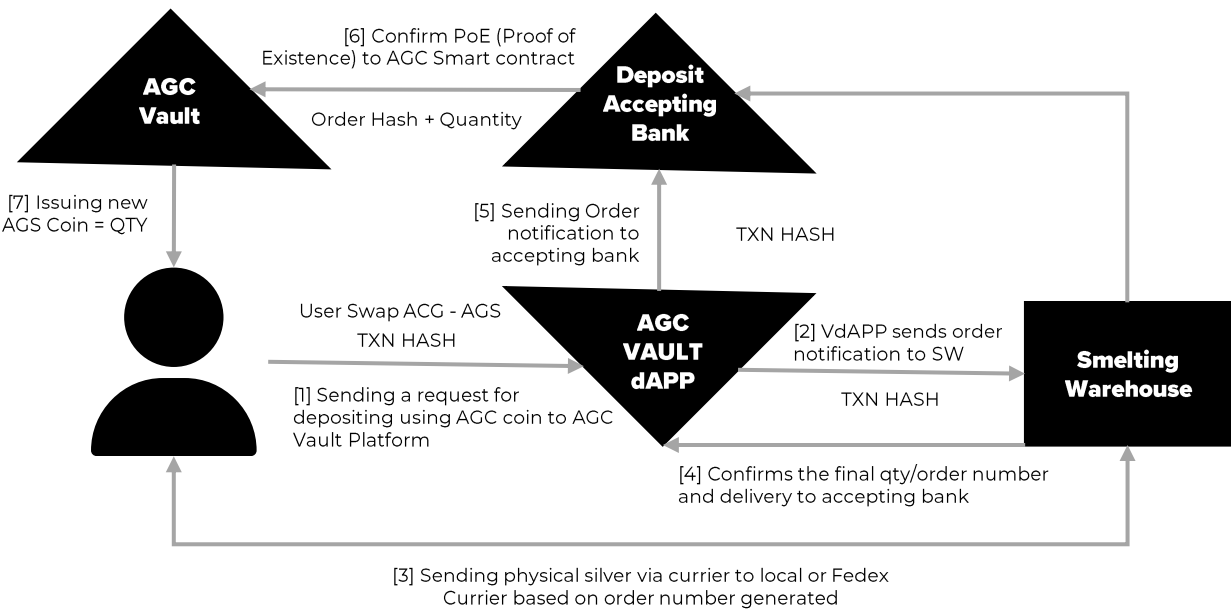- Taxes: uncertain tax status, may generate taxable income

AGC COIN

1. AGS Token
2. The Vault App
3. Tokenizing Vault Deposits
4. Flow of Funds
5. AGC Mining
6. AGC Custodian

2. AGC COIN

AGCoin project emerged at the intersection of a broad silver mining experience with blockchain technology to create additional value for the silver community by developing a tokenomy around tokenized privately held deposits of silver in the Vault. AGCoin's mission is to create a stable peer to peer finance ecosystem around silver holders where everyone can instantly send, receive, borrow against, stake or swap AGC coin with other cryptocurrencies. Each AGCoin issued in circulation is backed in by a one-to-one ratio with a oz, (1oz) of 99,99% quality silver held in reserve by a 3rd party vault banking partner located in Switzerland. AGC aims for perpetual decentralization, therefore is developing a quite unique approach which addresses two key issues with the asset-backed coin in general: internal coin issuing system and external asset custodian.

AGCOIN is built in top blockchain technology and addresses an innovative approach running a parachain in Subtrate, the Polkadot and Kusama ecosystem, having integrated a newly developed pallet, specifically designed for asset backed tokens. AGC is targeting a broader applicability from addressing volatility problems in crypto transactions for both merchants and friendly payment and looking to integrate interoperability in peer-to-peer silver community payments. AGC features brings quite unique characteristics with particular attention on the staking area where AGC showcasing a double staking mechanism, with a reward layer coming out from silver mining operations and a second from traditional lending.

AGC is running on top of a Vault dAPP where users will tokenize silver deposits and will interact with AGC environment.

[6] Confirm PoE (Proof of Existence) to AGC Smart contract

AGC Vault

Order Hash + Quantity

Deposit Accepting Bank

[7] Issuing new AGS Coin = QTY

[5] Sending Order notification to accepting bank

TXN HASH

User Swap ACG - AGS
TXN HASH

AGC VAULT dAPP

[2] VdAPP sends order notification to SW

Smelting Warehouse

[1] Sending a request for depositing using AGC coin to AGC Vault Platform

TXN HASH

[4] Confirms the final qty/order number and delivery to accepting bank

[3] Sending physical silver via currier to local or Fedex Currier based on order number generated

AGS Token

Acting as digital representation of co-ownership rights in a specific silver bullion, AGS token will represent one gram of physical silver from specified silver bullion. AGS tokens can only be purchased with AGC coins, i.e. any person wishing to invest in AGS tokens will first have to purchase AGC coins on one or several cryptocurrency exchanges where the AGCoin is listed. Similarly, if a holder of an AGS token wishes to divest, he or she will receive AGC coins which have to be sold through a cryptocurrency exchange in order to exchange into fiat currency. The AGS token will act as the first commodity in our network of vaults and will represent the widest liquidity on the market, empowering AGC coin with a consistent pool of liquidity.

The Vault app - AGC Vault

The Vault app is the main application where users will interact with the AGC environment. From the AGC Vault platform users create new silver deposits or redeem silver instantly. The AGC Vault will also act as the main marketplace for AGC coin. Certain transactions will be initiated by using AGC coin.
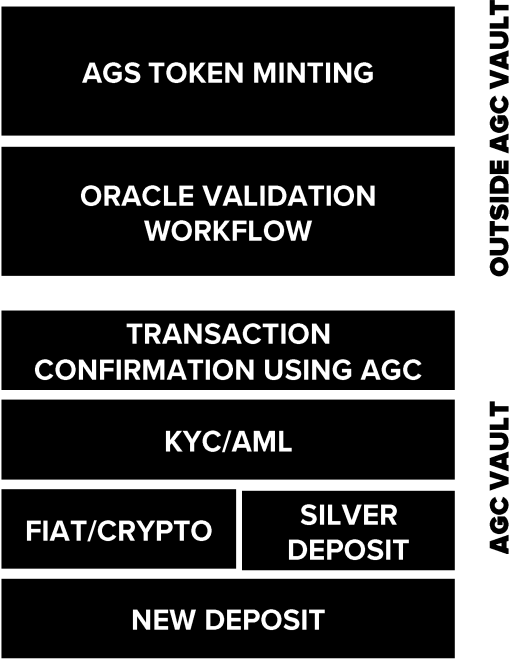
AGC Vault platform consist of five major parts:

1. Opening New Deposits
2. Redeem Silver Deposit
3. Staking AGC Coin
4. Swapping AGC Coin
5. Borrowing against AGOIN
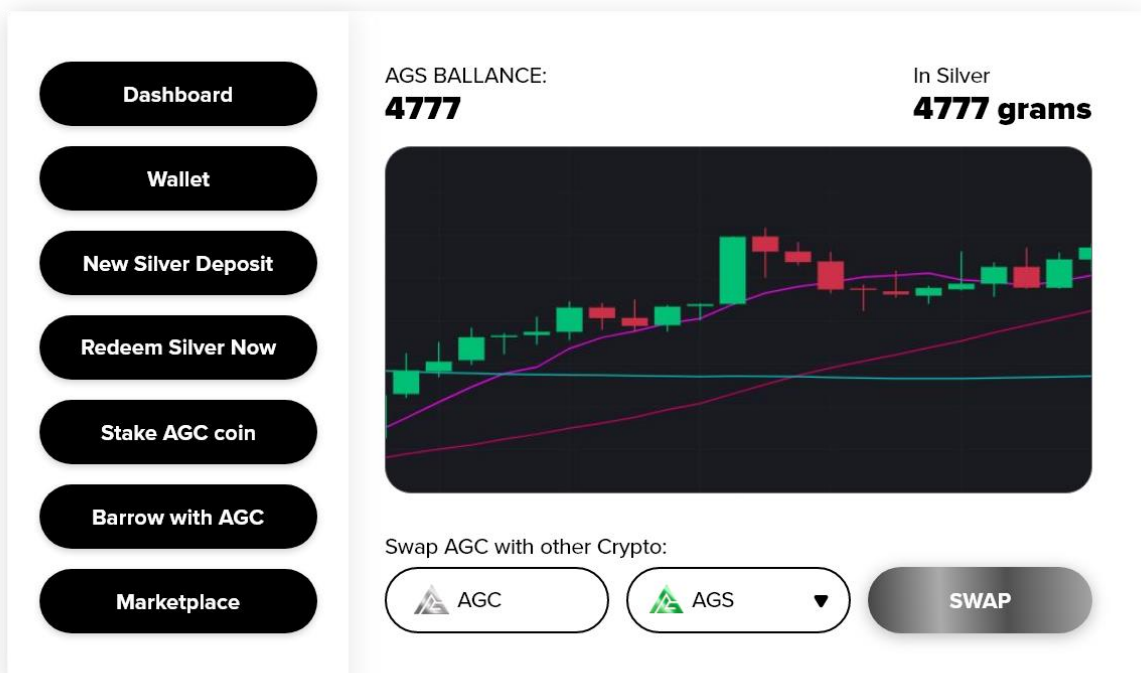
1. Opening New Deposits

A deposit can be opened in two ways in the Vault platform, by paying with fiat and other crypto, a process that requires KYC/AML check to complete, or by directly depositing your privately held silver with our Vault Banking partner. A fee in AGC coin is required to complete the transaction. It is a workflow involving input, then a validation workflow serving as an oracle, validating the minting or liberation of tokens, best described in the next figure.

OUTSIDE AGC VAULT

AGS TOKEN MINTING
ORACLE VALIDATION WORKFLOW

AGC VAULT

TRANSACTION CONFIRMATION USING AGC	
KYC/AML	
FIAT/CRYPTO	SILVER DEPOSIT
NEW DEPOSIT	

The fee users must pay in AGC is used to confirm the transaction and enable a trusted environment for a safe and compliant delivery and deposit of silver according to our banking partner standards and regulators policies. The AGC fee is structured as following:
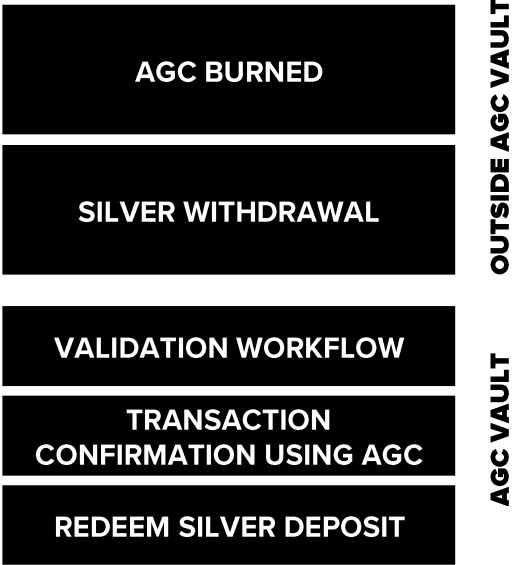
- When AGC is purchased directly with fiat or crypto. In this case the user will pay the settlement fee only which comprise the transaction confirmation and proof of storage deposit fee

- When AGC is purchased over privately held silver deposits which might comprise any shape of silver, must be delivered to our smelting warehouse partner, shape within 99,99% quality silver bars to be delivered to the Vaulting partner.

For both types of deposit an annual fee of 2% representing storage deposit must be paid to cover the storage cost of Silver on our vault banking partner side.

2. Redeem Silver Deposits

AGC coin holders can redeem back the silver they own at any point in time, by initiating a redeemability transaction in the Silver Vault Platform. Silver can be initially redeemed from our Vault Banking Partner located in Switzerland, or from our global network of partners on a later stage. When X amount of Silver is Redeemed, Y amount of AGC coins is burned.

AGC BURNED	OUTSIDE AGC VAULT
SILVER WITHDRAWAL	
VALIDATION WORKFLOW	AGC VAULT
TRANSACTION CONFIRMATION USING AGC	
REDEEM SILVER DEPOSIT	

3. Staking AGC

Staking is an activity where a user locks or holds his funds in a cryptocurrency wallet to participate in maintaining the operations of a proof-of-stake (PoS)-based blockchain system. It is similar to crypto mining in the sense that it helps a network achieve consensus while rewarding users who participate. Because of its asset backed construction, AGC coin showcases a double staking mechanism, first as one described above and second from generation of more silver out of silver mining operations.

The beta program for staking out a mining operation will target a pool of 11 million unextracted ounces of silver owned by AGC Mining Operations, part of AGC Enterprise.

	Year 1	Year 2	Year 3	Year 4	Totals
Silver Extracted	1.790.000	2.640.000	2.640.000	2.640.000	9.710.000
Cost to Extract	$ 17.900.00	$26.400.000	$26.400.000	$26.400.000	$26.400.000
Est. Market Value	$48.330.000	$87.120.000	$79.200.000	$105.600.000	$320.250.000
Ext Account Interest	$21.848.000	$76.992.000	$9.936.000	$3.600.000	$51.656.000
Total Profit	$52.278.00	$76.992.000	$62.736.000	$82.800.000	$274.806.000

Staking mechanisms out of silver mining operations will be initiated from a pool of USD 100,000,000M out of a USD 130,000,000M initial stake offering conducted by AGC Enterprise. Initial Stake Offering will lock up the purchased funds in your wallet until the account volume will match the silver in the vault with newly extracted silver. Extracted silver will be distributed yearly and new AGC tokens will be released in the wallet.

4. Swapping AGC Coin

In order to build an immediate secondary market and access to liquidity for AGC Coin, we shall use a non-custodial cross chain AMM DEX, designed uniquely for Polkadot and Kusama ecosystem and hosted on the SORA 2.0 network. AMM DEX swap engine will be integrated in the AGC Vault Platform using SDK.
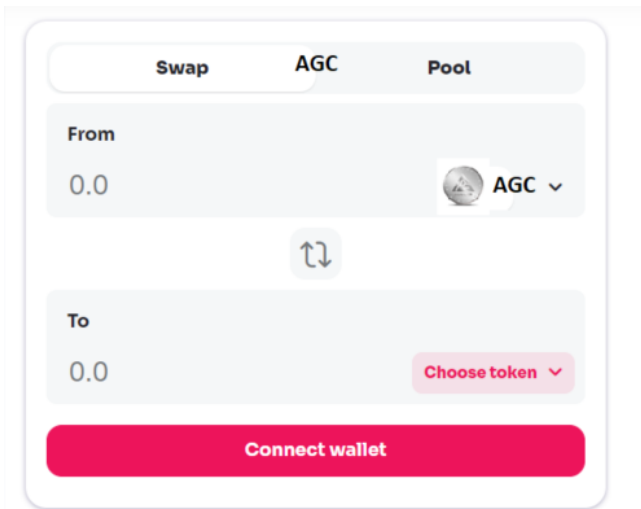
Swap engine is using Aggregate Liquidity Technology (ALT) With the security and convenience of a decentralized exchange. There are certain benefits over Ethereum based DEXs, such as:

- Multitude of assets existing on numerous chains with the capability to go beyond the limits of current Ethereum DEX's with the opportunity to add tokens from the Polkadot ecosystem as well as from other blockchains to the exchange. In doing so, the threaded pairs are not limited to ERC 20 tokens like other DEXs, but can be any blockchain that can be connected to Polkadot

- Lower gas fees, which is a critical aspect of stable coins, especially when connected to merchant payments or any other form of payment which involves stable price of goods or services. Gas fee will be lower because of the infrastructure of Substrate that does not use expensive mining for consensus.

- On-time transactions currently represent the most important aspect of the entire ecosystem are hardly achieved today due to complex congestion problems in the ETH network. By using Substrate user will have access to fast and reliable system for processing DeFi based transactions

The swap engine will charge a 0.3% trading fee per transaction like Uniswap does. Trading fees are used to buy back and burn the swap engine tokens while new swap engine tokens are minted to reward LPs.

The Swap Engine will provide access to the entire Polkadot and Kusama ecosystem, basically AGC coin holders will be able to swap AGC coins instantly with any token across the ecosystem.

5. Borrowing against AGC Coin

AGC holders will be able to instantly borrow capital in the form of another top cryptocurrency. The mechanism uses a staking-backed loan engine by using AGC as a collateral. Due to the partnership incentives with our Vault banking partner AGC holders will be able to access fiat loans in several currencies against AGC. To enable cross blockchain liquidity AGC

Vault platform will use the decentralized finance hub of ACALA, a stable coin platform part of the Substrate ecosystem. ACALA's staking Liquidity releases staked assets (DOTs) as fungible and liquid assets (L-DOTs) extracting the derivative value of staked assets to fuel Defi without scarifying the security to the whole network.

AGC COIN

AGC Staking backed LOANS

EUR **USD** **CHF**
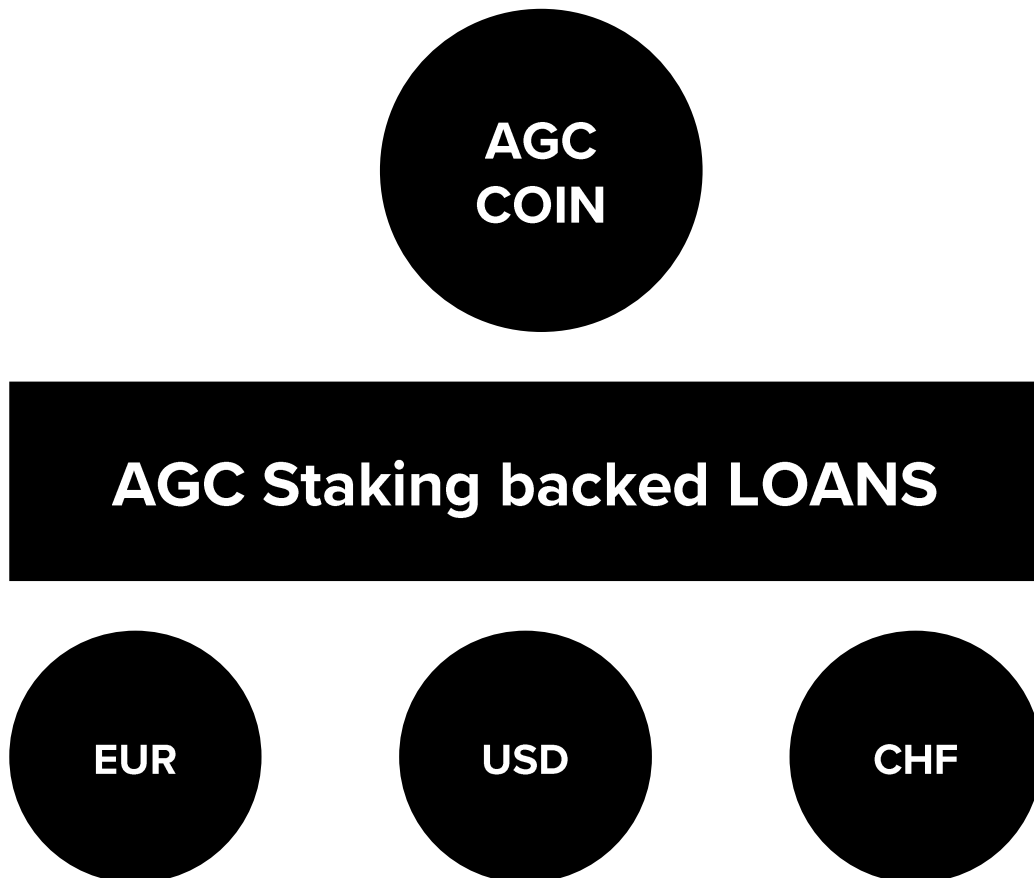
Tokenizing Vault Deposits

Tokenization converts the value stored in tangible or intangible objects into a token that usually can be manipulated along a Blockchain network. In simple words, tokenization can turn almost any asset, either real or virtual, into a digital token and enables the digital transfer, ownership, and storage without the necessary need of a central third party/intermediary.

Tokenizing Vault deposits orders implies creating tokenized orders in an external partner environment (Vault Banking Partner) and pre-registering a future 100% next customer, since AGC token is minted only if the physical silver is confirmed with the order is not in our accountability if the order will be filled off-chain or don't. Since all the orders are tokenized within the Vault platform that gives 100% trusted accountability against any 3rd party audit.

Flow of Funds

The flow of funds in AGC Coins comprise 5 steps and is described in the following diagram:
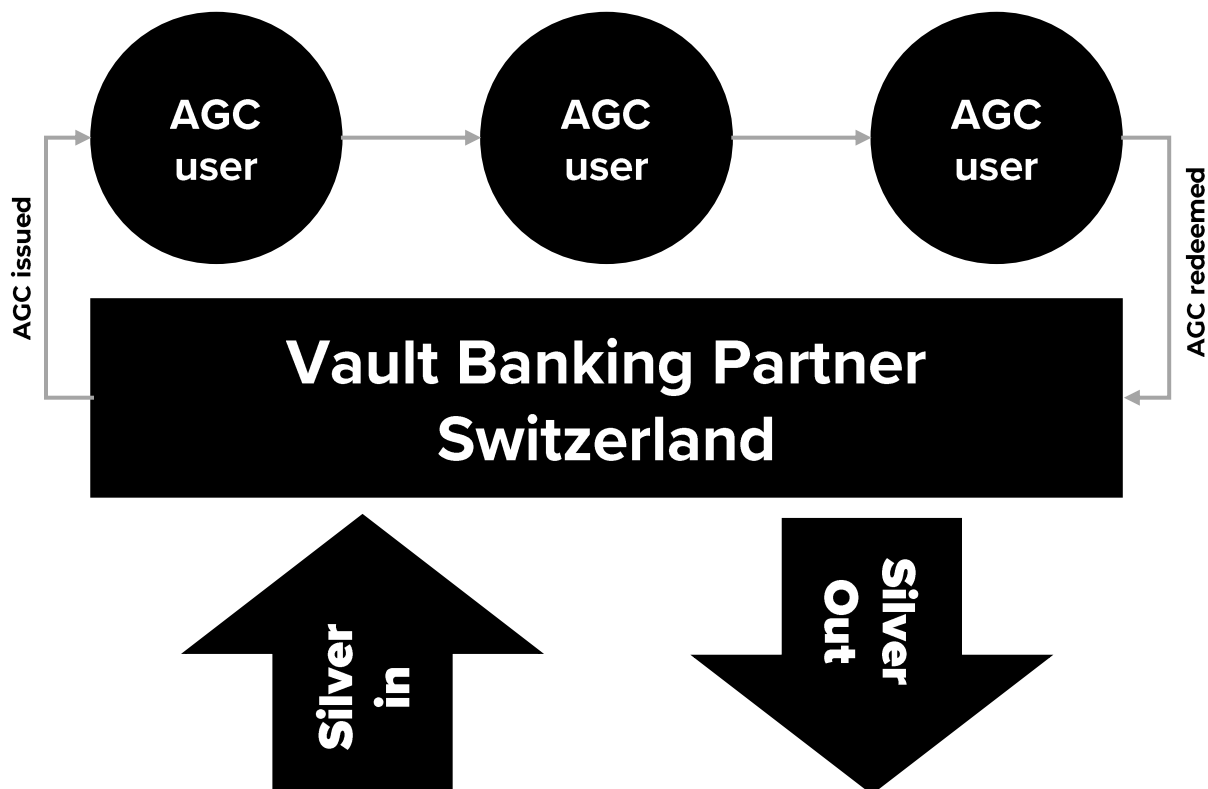
1. User send silver deposit in the Vault Banking partner
2. Proof of Deposit is confirmed and releases more AGS in circulation. Amount of silver weight deposited by user in the vault equals to the amount of AGS issued (e.g., 10.000 grams of silver deposited = 10.000 AGC issued)
3. AGS token will be exchanged in AGCoin
4. AGCoin issued is used within Vault-base marketplace and around silver community for payments
5. The user creates a redemption order to the AGC Vault by purchasing back the AGS tokens which are burned and the physical silver redeem

AGC Mining

AGC Mining Operations consist of a silver mining and processing plant located in Mexico and over 140 million ounces of extraction rights for underground silver assets. The plant is managed by Comprosuoro Corporation, mother company of AGC Enterprise having over 18 years of precious metals extraction experience. Over USD 28 M has been invested in development to date and there are a 160 employees on the payroll. The plant will operate and extract the11 million ounces of silver that will be allocated to staking AGCoin, This is out of a total projected 140 million ounces in the ground.

AGC's mining strategy is to connect key players around the global silver mining industry to join forces on the staking mechanism of AGC coin and provide constant access to liquidity for the silver community. To achieve this AGC Enterprise will build up a non-profit association called GSMCOE (Global Silver Mining Operators Council of Excellence), an entity that brings together of executive, media leaders and academics around mining & metals sector to continuously discuss and innovate about ways of providing funding and sustainability for the industry and contribute to global adoption of AGCoin and envisioning the benefit of adding up the more silver to a single decentralized business model entity but in real possession of the masses.

AGC Custodian

Cryptocurrency custody solutions are independent storage and security systems used to hold large quantities of tokens. Custody solutions are one of the latest innovations to come out of the cryptocurrency ecosystem and have been expected to herald the entry of institutional capital into the industry. Securing volumes of crypto assets through custody offers users a similar experience with traditional banks. Crypto custody solutions are designed to secure, protect, and insure large digital asset volumes even if the owner ends up losing keys as it can be replaced by the custody management outfit. AGC strategy comprises an internal custody infrastructure for AGC Vault platform operations as well as an external partnership with BNY Mellon for the AGC custody.

At the start AGC will use a Ledger Vault for securing digital assets. Ledger Vault integrates enterprise grade crypto-asset safeguarding and transaction solution utilizing end-to-end hardware and software security to achieve governance, scalability and 24/7 availability of funds without compromising on security. Hardware Security Modules (HSM's), Personal Security Devices (PSD), the Secure Channel, BOLOS (Ledger's security operating system), and hierarchical deterministic derivation are five fundamental components underpinning the security of the Vault Platform. With Ledger Vault, private keys and governance rules are sealed in a HSM that generates the transaction/signature. Ledger is pursuing relevant security methodologies to certify the Ledger Vault. As such, we completed the System and Organization Controls (SOC) 2 Type 1 examination.
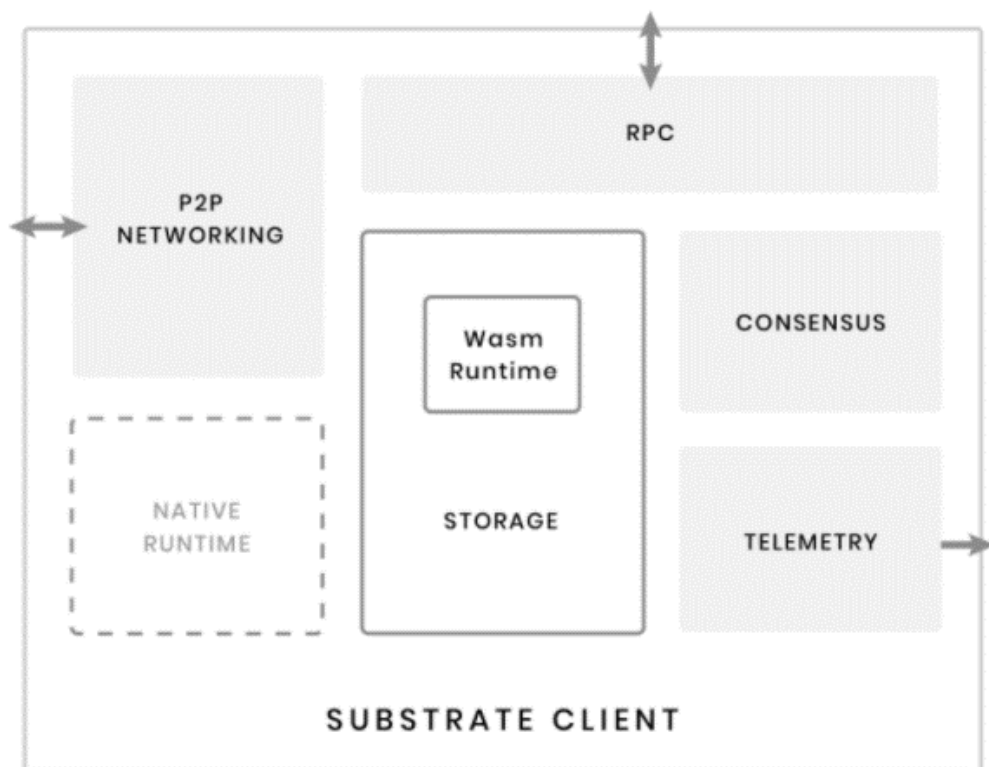
Technology behind

1. Substrate and Polkadot environment
2. Asset Backed Pallet
3. Inheriting Polkadot security
4. Proof of Silver Reserves
5. Coin issuing structure

3. Technology behind the Vision

AGC is a parachain built up in Substrate, a modular framework that enables to create purpose built blockchains by composing custom or pre-built components.

The Substrate client is an application that runs a Substrate-based blockchain node - it consists of several components that include, but are not limited to, the following:

- Storage is used to persist the evolving state of the decentralized system represented by a blockchain. The blockchain network allows participants to reach trustless consensus about the state of storage. Substrate ships with a simple and highly efficient key-value storage mechanism.

- Runtime logic defines how blocks are processed, including state transition logic. In Substrate, runtime code is compiled to Wasm and becomes part of the blockchain's storage state - this enables one of the defining features of a Substrate-based blockchain: forkless runtime upgrades. Substrate clients may also include a "native runtime" that

is compiled for the same platform as the client itself (as opposed to Wasm). The component of the client that dispatches calls to the runtime is known as the executor and it selects between the native code and interpreted Wasm. Although the native runtime may offer a performance advantage, the executor will select to interpret the Wasm runtime if it implements a newer version.

- Peer-to-peer network capabilities allow the client to communicate with other network participants. Substrate uses the libp2p network stack.
- Consensus engines provide logic that allows network participants to agree on the state of the blockchain. Substrate makes it possible to supply custom consensus engines and also ships with several consensus mechanisms that have been built on top of Web3 Foundation research.
- RPC (remote procedure call) capabilities allow blockchain users to interact with the network. Substrate provides HTTP and WebSocket RPC servers.
- Telemetry metrics are exposed by way of an embedded Prometheus server.

Usability of Substrate is framed to be used in three ways:

Substrate Core

Substrate Frame
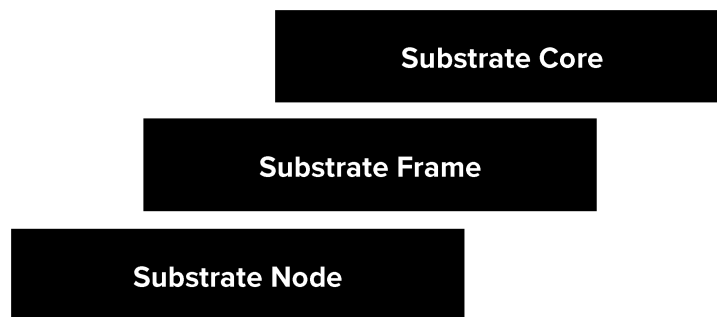
Substrate Node

1. Substrate Node: Running the pre-designed Substrate Node and configuring its genesis block. where just JSON file needs to be provided for the launch of AGC Blockchain. The JSON file allows to configure the genesis state of the modules that compose the Substrate Node's runtime, such as: Balances, Staking, and Sudo.

2. Substrate FRAME: Creates custom runtime using FRAME (Framework for Runtime Aggregation of Modularized Entities), used to build the Substrate Node. This affords a large amount of freedom over the AGC blockchain's logic, and allows to configure data types, selected from a library of modules (called "pallets"), or add custom pallets.

3. Substrate Core: The entire FRAME system can be ignored, and the runtime can be designed and implemented from scratch. This could be done in any language that can target WebAssembly. If the runtime can be made to be compatible with the abstract block authoring logic of the Substrate node, then you can simply construct a new genesis block from your Wasm blob and launch your chain with the existing Rust-based Substrate client. If not, then you will need to alter the client's block authoring logic, and potentially even alter the header and block serialization formats. In terms of development effort, this is by far the most difficult way to use Substrate, but also gives you the most freedom to innovate.

AGC blockchain built with Substrate will be natively compatible with Polkadot and Kusama ecosystem, therefore AGC mainnet will be plugged into Polkadot as a parachain getting freedom of creating AGC chain customized for the AGC Vault Platform unique application's needs.

AGCOIN

Asset-Backed Pallet

Pallets are a special kind of Rust module from which Substrate runtimes can be composed. Each pallet has its own discrete logic which can modify the features and functionality of your blockchain's state transition function. Pallets are included in the FRAME (Framework for Runtime Aggregation of Modularized Entities) and define the AGC cryptocurrency for the AGC blockchain. It defines storage items which tracks the tokens a user has, functions that users can call to transfer and manage those tokens API's which allow other modules to burn or mint tokens and hooks which allow other modules to trigger functions when user balance changes.

Substrate pallet is composed of 5 sections:
1. Import and Dependencies
2. Runtime Configuration Trait
3. Runtime Events
4. Runtime Storage
5. The Pallet Declaration

The assets system in Substrate is designed to make the following possible:
• Issue a unique asset to its creator's account.
• Move assets between accounts.
• Remove an account's balance of an asset when requested by that account's owner and update the asset's total supply.

The Assets module provides functionality for asset management of fungible asset classes with a fixed supply, including:
• Asset Issuance
• Asset Transfer
• Asset Destruction

AGC Dispachable Functions
• issue - Issues the total supply of a new fungible asset to the account of the caller of the function.
• transfer - Transfers an amount of units of fungible asset id from the balance of the function caller's account (origin) to a target account.
• destroy - Destroys the entire holding of a fungible asset id associated with the account that called the function.

AGC Public Functions
• balance – Get the asset id balance and who
• Total supply – Get the total supply of an asset if

Usage

Assets module in your runtime by exposing public functions to:

- Issue a new fungible asset for a token distribution event (airdrop).
- Query the fungible asset holding balance of an account.
- Query the total supply of a fungible asset that has been issued.

Assumptions – The total count of assets should be less than Config::AssetId::max_value().

```rust
use pallet_assets as assets;
use frame_support::{decl_module, dispatch, ensure};
use frame_system::ensure_signed;

pub trait Config: assets::Config { }

decl_module! {
        pub struct Module<T: Config> for enum Call where origin: T::Origin {
                pub fn issue_token_airdrop(origin) -> dispatch::DispatchResult {
                        let sender = ensure_signed(origin).map_err(|e| e.as_str())?;

                        const ACCOUNT_ALICE: u64 = 1;
                        const ACCOUNT_BOB: u64 = 2;
                        const COUNT_AIRDROP_RECIPIENTS: u64 = 2;
                        const TOKENS_FIXED_SUPPLY: u64 = 100;

                        ensure!(!COUNT_AIRDROP_RECIPIENTS.is_zero(), "Divide by zero error.");

                        let asset_id = Self::next_asset_id();

                        <NextAssetId<T>>::mutate(|asset_id| *asset_id += 1);
                        <Balances<T>>::insert((asset_id, &ACCOUNT_ALICE), TOKENS_FIXED_SUPPLY / COUNT_AIRDROP_RECIPIENTS);
                        <Balances<T>>::insert((asset_id, &ACCOUNT_BOB), TOKENS_FIXED_SUPPLY / COUNT_AIRDROP_RECIPIENTS);
                        <TotalSupply<T>>::insert(asset_id, TOKENS_FIXED_SUPPLY);

                        Self::deposit_event(RawEvent::Issued(asset_id, sender, TOKENS_FIXED_SUPPLY));
                        Ok(())
                }
        }
}
```
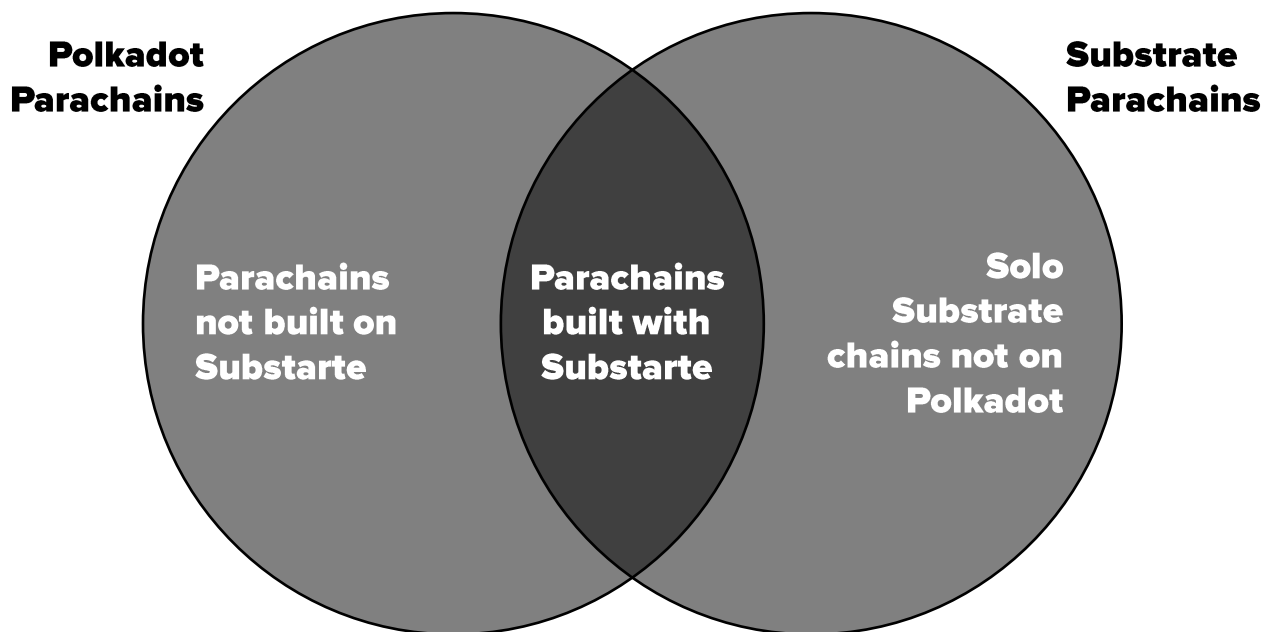
Inheriting Polkadot Security

Any blockchain built with Substrate will be natively compatible with Polkadot, so when the AGC mainnet comes live will be connected to Polkadot as a parachain. By being connected to Polkadot, AGC Blockchain will be able to pass arbitrary messages to other chains in the Polkadot Network making it simple to secure AGC blockchain and communicate with Polkadot's network.

Polkadot Parachains

Substrate Parachains

Parachains not built on Substarte

Parachains built with Substarte

Solo Substrate chains not on Polkadot

Polkadot connects a range of blockchains, from general to app-specific, to create a platform that enables more advanced applications. Some examples of such advanced applications that harness cross-chain arbitrary message passing:

- Oracle service that puts real-world data on-chain

- Identity management system to link user identity in multiple apps

- Decentralized exchange order books and escrow

- IoT network that receives messages from other networks or controllers

- Cross-chain smart contract calls

- Message passing between private and public chains

Proof of Silver Reserves

Crypto ecosystem has faced insolvency numerous times, via hacks, mismanagement or fraud. Because of its business model AGC Enterprise would rather take a counterparty risk, storing the silver value with a reputable licensed 3rd party custodian, and concentrating our focus on developing the AGC ecosystem. With this approach, complex algorithmic identification is not needed because the users and auditors will be able at any time to check the total volume of silver deposits and see if it equals the total amount of AGC coins in circulation.

Coin issuing structure

Since the silver deposits are in trusted 3rd party custodian being held in Switzerland direct minting might be possible since the deposits are trusted anyway. Every time when a new deposit is confirmed in the end Vault, a related amount of AGC is minted directly. To increase even more trust, we will build an oracle function as our vault baking partner that would activate coin minting based on silver deposit confirmation.

AGC MINTING

ORACLE TRIGGER

SILVER DEPOSIT CONFIRMATION

TRANSACTION CONFIRMATION USING AGC
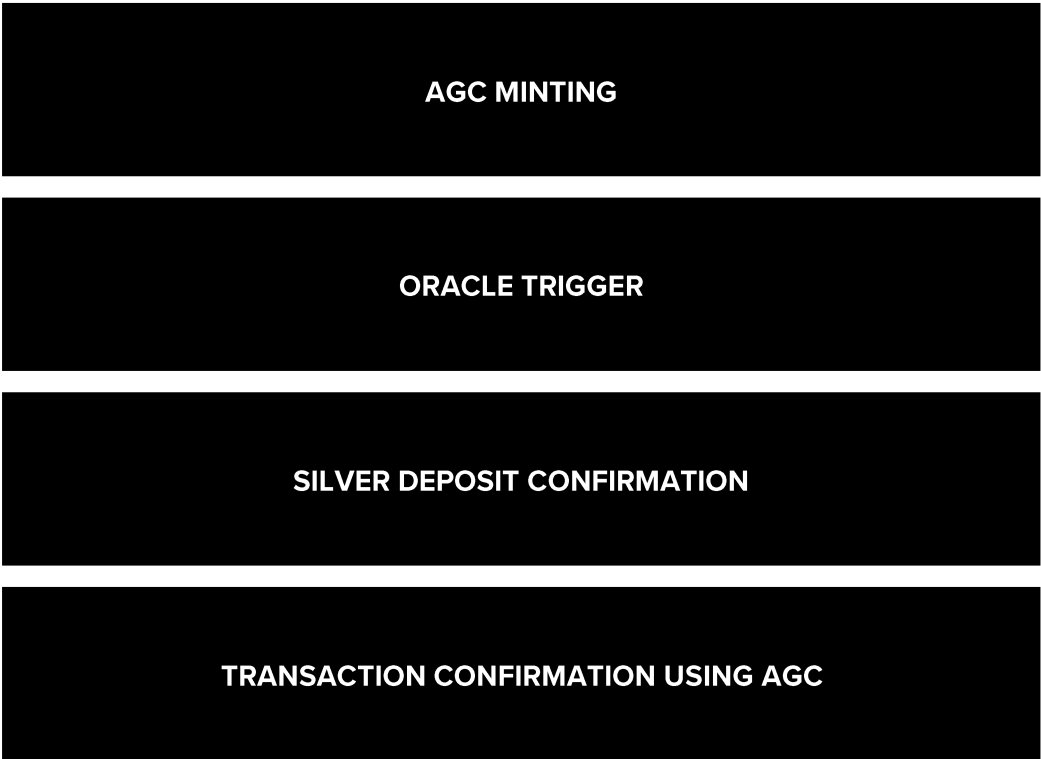
AGC applications

1. Strategic Partnerships
2. For merchants
3. For silver holders
4. For Exchanges
5. Trading pairs

4. AGC applications

AGC applications

Price instability and market speculation have contributed to extreme volatility in cryptocurrencies, creating an ecosystem that is not supportive of vital financial functions. High level of transparency and accountability is calling for the need for a more stable medium of exchange. Recently stable coins reach great momentum, Tether only reaching a market cap of $39 billion and opened doors for an ocean of applicative use. Yet current congestion in

the Ethereum market due to NFT's highly impacted the transaction speed and especially fees in working with Ethereum based stable coins. Transaction speed, very small fees and liquidity and the most important factors in creating efficient applicability to stablecoins.

The core benefits of a stable coin are less volatile units of account, migrating assets on the blockchain and properties of another cryptocurrency.

For Merchants

Merchants want to focus more on getting sales not on payments. Gateway to the crypto communities can be achieved only by converting any crypto orders to a stable coin. AGC offers a key approach for merchants by converting their crypto payments to a stable asset backed coin which stores silver deposit as a value. By integrating AGCcoin in their payment processing merchants will have access more freedom over crypto transactions with greater stability behind, transaction speed

and low fees.

Additional benefits include:

- Price goods and services in fiat rather than a volatile crypto

- Avoid conversion of crypto to fiat and associated fees and taxes

- Provide groundbreaking service such as gift cards and micro-tipping

- Prevent chargebacks

- Accessing new crowds of customers using crypto as a form of payment

For AGC community

Any individual can transact with AGC and get greater stability, hedge against inflation and initiate peer to peer payments instantly. Weather AGC will be use for sending a payment to a friend, purchase a product, initiate a fundraise, open a crypto saving account, open a scholarship fee account, save for your dream car, or open new business or develop new technologies, AGC will offer benefits like:

- Transact in a stable value, privately and without middleman

- Cold store silver value by securing your private key

- Fast conversion in fiat currency

- Build applications in top of Polkadot and Kusama ecosystem that support AGC coin

- Connect instantly to a stable financial ecosystem from anywhere in the world

For payment providers

Payment providers and exchange operators acknowledge that conventional withdrawals using legacy systems can be slow, risky and expensive. Those are facing multiple challenges such as conversation rates, days in processing for international transfer or high cost for small transfers, complex process of coordination with banking entities. By accepting AGC , a payment provider will gain the following immediate benefits:

- Accept crypto-fiat as deposits, withdrawal storage process rather than using a legacy bank

- Allow users to move fiat in and out faster and cheaper

- Easily add other asset backed tokens trading pairs

Trading pairs

Due to its very stable nature backed by silver assets held in a very trusted party and regulated in a top worldwide location such as Switzerland AGC coin will provide value for initiating trading pairs with other security tokens or royalty tokens who will disrupt mining & metals sectors in the days to come. AGC is committed to support that type of projects with added value and immediate access to open liquidity.

5. Future with AGCoin

AGC Enterprise is not necessarily looking to become the currency of people, nor the "holy grail" of stable coins, but to provide continuous and perpetual value to the silver holders community providing them with instant access to innovative service to use on top of their silver's deposits.

Some of the short-term future developments AGCcoin will implement are the following:

Secure multi party computation for crypto custody service

Secure multi-party computation (also known as secure computation, multi-party computation (MPC), or privacy-preserving

computation) is a subfield of cryptography with the goal of creating methods for parties to jointly compute a function over their inputs while keeping those inputs private. Unlike traditional cryptographic tasks, where cryptography assures security and integrity of communication or storage and the adversary is outside the system of participants (an eavesdropper on the sender and receiver), the cryptography in this model protects participants' privacy from each other.

Smart Insurance

Developing a peer-to peer insurance marketplace in the Polkadot blockchain enabling anyone to request insurance for a supported protocol and anyone to provide coverage

Multi-Commodity Exchange

Scale to more vault based commodities to be tokenized within AGC Parachain

Smart Contracts

Develop Parachains smart contracts in Substrate with Ethereum compatibility to provide silver holders with cross chain functionalities.

6. Investment Risk

Risk Factors Related to Silver Investments

All investments involve risk - coins and bullion are no exception. The value of a bullion coin is affected by many economic positions, including the current market price of bullion, the assess scarcity of the coins and other factors. Some of these factors include the quality, current demand, and general market sentiment. Accordingly, because both bullion and coins can go down as well as up in value, investing in them may not be suitable for everyone. Since all investments, including bullion and coins, can decline in value, you should understand them well, and have adequate cash reserves and disposable income before considering a bullion or coin investment.

A.   If one borrows or shorts precious metals, such activity can carry unlimited risk. The risks in borrowing or shorting silver, platinum and palladium are usually greater than the risks in borrowing or shorting gold as there is less liquidity in the silver, platinum, and palladium markets.

B.   The prices of precious metals can fluctuate in wide ranges over relatively short periods of time, and from time to time have done so, and could double or more in an instant under certain circumstances.

C.   Potential up market risk

D.   There is always the potential that world events will cause sudden and unpredictable calamitous price fluctuations that could cause us to liquidate positions unless the borrower had adequate protections in place.

E.   The best protection to such up-market risk is to:

If one is a borrower of silver,

i.   Make sure to always have the silver that is borrowed.

ii. If shorting silver, limit shorts to amounts manageable if the price of silver went way up.

iii. If shorting silver, limit shorts to amounts manageable if the price of gold went way up.

iv. Deposit additional good funds or precious metals with the lender, as a cushion in the event of a rapid increase in the gold price.

v. Anticipate and closely watch and plan for events that could cause the market to rise or skyrocket.

vi. Have lines of credit available from which to draw in case of a large margin call.

The single biggest risk across various classes of investments is market risk.

Type of Investment	Risk Level
Bullion (coins and bars)	Low
Major mining companies	Low - Medium
Midsize mining companies	Medium-high
Junior mining companies	High
Mutual funds	Low
Exchange traded funds (ETFs	Low-medium
Covered call writing options	High
Buying calls and puts options	High
Futures	Low

Risk factors related to legal and regulatory framework

Most cryptocurrency is still unregulated. Regulations are stated to be adopted in several countries but there is not yet a certain legal framework which specifically defines stable coins and asset backed coins. Therefore, a key factor is choosing a starting jurisdiction of which AGC business model to fully comply backed by an experienced legal team with complex crypto projects. As such AGC Enterprise chose Switzerland as a primary jurisdiction which is the most mature location for most of the successful crypto projects. AGC Enterprise is working with DALAW (DIGITAL ASSETS LEGAL ADVISORS) a highly experienced legal team within the crypto and finance field.

Risk related to AGC Coin

Security Tokens are a third grade of tokenization, different from Crypto-Currencies (Bitcoin, Ethereum, etc.) and Utility Tokens, in which the tokens represent fractional ownership in a potentially broad range of financial investments or hard assets. The marketplace has been slow to fully embrace this new paradigm in investing, but times are changing. More frequent announcements of asset tokenization are being released, while sizable pools of investors become educated and embrace the potential of these digital investments.

Anything at all with a legal ownership structure is possible as the elementary asset of a Security Token. It is for this critical reason that the token does not avoid rules and regulations of the host country's regulatory and tax environment. You must strongly consider the investment vehicle structuring and look to work with perspicacious legal counsel along with tax counsel, to address both regulatory rules for asset ownership, and many of the investment objectives of your token holders.

The value of silver comes from its demand. When industries need silver for production, it becomes a hot commodity. However, if industries tend to be waiting on other materials, silver's value will drop.

The misconception is that silver isn't influenced by market conditions, when it's as vulnerable as many other assets.

In defiance of the subtle dangers of silver, it's popular with investors, especially during tough times. This puts it in the category of a safe haven, which is defined as an investment that is expected to hold its value as the market turns turbulent. Nonetheless, no safe haven is guaranteed in every market, which means it's important to research silver before putting money into it. Due to its slightly safer nature, though, some investors choose to make silver a part of a larger portfolio. With AGC token you will earn interest on that part of

your portfolio over the years. The fact that they tend to do better when other stocks are failing can help balance out your portfolio.

Cryptocurrencies are still new and highly volatile. Investing in a AGC token enables investors to enter crypto markets with less risk. Buying physical Silver is limited to precious metal markets, whereas AGC tokens help usher in the modern era of investments and are available on public ledgers every day of the

week.

With inflation worries surrounding the $9 trillion expansion of USD in 2020, fiat currencies are simply not as desirable as a reserve asset for stable coins as they were a year ago. AGC token represents a high-security investment in hard assets that is in step with the digital currency landscape.

Risk factors related to business model

To achieve desired goals stablecoins, have to provide continuous access to liquidity. Because of its business model AGCoin cannot inflate the silver in the Vault which has to be equal at any point in time with the total number of coins in circulation, which creates a possible risk of not being able to deliver as much silver needed to comply with liquidity demand. This risk is mitigated by the silver mining operations of AGC Enterprise which is committed to provide extracted silver for the next 40 years from our mining facilities, nevertheless due to our strategy on

supporting royalty tokens initiatives in mining and metal industry and we hall connect with more mines of silver worldwide and integrate their business model in AGC matrix to match supply and demand at any point in time. Another key risk related to the business model is having a malicious relation across the AGC timeline with our vault banking partner. Risk mitigation will concentrate around building a relation that supports the growth of our business having them as a partner on board with proper contracts in place which cover all the aspects of guaranteeing business functionality and business model support.

7. Appendix

Legal and compliance

AGC Enterprise AG, based in Switzerland , represented by Dr Hans Kuhn from Digital Assets Legal Advisors as Lead Legal Advisor. Any legal inquiry should be directly addressed by email at kuhn@dalaw.swiss. The purpose of the project is to fund the ongoing operation of a silver mine owned and operated by Comprosuoro S.A. de C.V, Amores 826, Col de Valle, Mexico CDMX, CP 03100, Mexico, company number COM090611T47, and the tokenization of silver to be extracted in order to distribute it directly to end investors. The silver mine is fully operational, but requires operating capital of up to USD 30 mn. over the next 24 months in order to reach full potential. The mine is fully explored and silver deposits of up to 11,800,00 oz have been confirmed by Comprosuoro. The silver ore is being processed by Comprosouro and delivered in the form of 30 kg standard bullions. The bullions are numbered and therefore non-fungible. They are held in safe custody by certified third-party vault (tbd), a silver refinery which also has operations in Switzerland. The business case is scalable since other small silver producers in Mexico also need operation capital. The direct distribution to end investors will increase the overall margin of the producer by 40%.

Legal Structure

1. AGCoin ("AGCoin" - Payment token raising operating capital

2. AGS Token ("AGS Token") - digital representation of physical silver in the form of standard bullions

AGCoin and the AGS Token will be issued by AGC Enterprise AG, a company incorporated under the laws of Switzerland, fully owned by AGCoin Ltd. Both tokens shall be sold to retail investors in as many jurisdictions as possible, in particular in Europe and Asia. The overall project is structures into two phases, where the operating capital is raised in deployed in phase 1 and after full redemption of the AGCoins issued in phase 1 any excess production is sold directly to investors in phase 2.

AGCoin will be structured in a way that it qualifies as a payment token under Swiss law and the laws of other jurisdictions. It will serve as a medium of exchange in the AGCoin ecosystem and a store of value. It will also be accepted as a medium of exchange (payment instrument) for the acquisition of AGTokens at a fixed price which shall be below the market price for silver bullions when the AGCoin is issued. This structure should permit to peg the AGCoin to the silver price while avoiding a qualification as a stablecoin or a security. In order to achieve this, is must be clear that the AGCoins does not confer any rights for repayment of the money invested nor an enforceable right to acquire AGTokens in the future (which would be an option). The qualification of the AGCoin as a payment token will permit to list the AGCoin DALAW.swiss 2 2 on one or several cryptocurrency exchanges.

Issuers of payment tokens are qualifying as financial intermediaries under the Swiss Anti-Money Laundering Act (AMLA) and therefore have to join a SelfRegulatory Organization (SRO) like, e.g., VQF in Zug (https://www.vqf.ch/en/). 4 AGToken will be the digital representation of co-ownership rights in a specific silver bullion. This structure is feasible under the new Swiss DLT Act and has been realized in other projects (e.g. for the tokenization of expensive wine, see https://www.insights.sygnum.com/post/sygnum-bank-and-fine-wine-capital-issue-first-tokenized-asset-under-new-dlt-swiss-law).

It will be structured in a way that a qualification as a transferable security and/or a financial instrument can possibly be avoided under the laws of Switzerland and the EU laws (but not the US). For this purpose, one AGS Token will represent on gram of physical silver of a specified silver bullion. AGTokens can only be purchased with AGCoins, i.e. any person wishing to invest in AGTokens will first have to purchase AGCoins on one or several cryptocurrency exchanges where the AGCoin is listed. Similarly, if a holder of an AGToken wishes to divest, he or she will receive AGCoins which have to be sold through a cryptocurrency exchange in order to exchange in a fiat currency.

Phase 1

The AGCoin will be issued in stages as follows (MPS = Market Price for silver bullions at the time of issue; we assume that the price if USD 25/oz over the whole project):

Stage	Price/Token	Number of tokens	USD raised
1. Private Sale	MPS – 25%	97,689	2,000,000
2. Pre-Public Sale	MPS – 20%	293,067	8,000,000
3. Public Sale	MPS – 10%	595,833	20,000,000
Total	$76.992.000	986,589	30,000,000

In order to fully redeem the AGCoins in AGTokens, a total of 44,873 tons of silver will have to be produced. 2.

Phase 2

Any silver mined after all AGCoins have been fully redeemed can be sold directly by issuing new AGCoins in line with the production of new silver. The issuance price for new AGCoins will have to be determined, but we don't see an urgent need to issue the coin at a price below current market prices for silver at the time of issue. Issuance will take place on an ongoing basis, i.e. whenever investors are subscribing for AGCoins. This ensures price stability since after full redemption of the initial offerings AGCoins will be backed by physical silver at all times.

Overall Assessment

We believe that this structure will enable us to achieve the project goals (raising of operating capital, realize retail margins) in a manner which limits regulatory risks and costs. We believe the product is easy to explain to retail investors and highly attractive, because the risks in Phase 1 (when the AGCoin is not backed by physical silver yet but rather by the mere expectation that enough silver will be produced to fully redeem the coins) are adequately compensated by a sizeable discount vis-à-vis the market price. At the same time investors will benefit from any upside potential in the silver price (but also assume downside risks). The blueprint can also be expanded to other producers and is therefore scaleable.

Eligibility

AGC Enterprise AG ("Issuer") is an exempt foundation company incorporated under the Switzerland Foundation Companies Law, (Year), subject to the provisions and obligations related to Anti-Money Laundering ("AML") and Know Your Customer ("KYC") procedures of the Switzerland, namely the Proceeds of Crime Law and the Anti-Money Laundering Regulations. This Token offering is intended for international purchasers based worldwide, excluding persons with residence/nationality from Iran, North Korea, Venezuela, Myanmar in addition to persons located in any of the jurisdictions blacklisted by the Organization for Economic Co-operation and Development and the United Nations.

KYC /AML

All the participants in the token offering platform within the AGC ICO site https://ico.agcoin.io are subject to a KYC/AML check before completing full profile customization. Without successful KYC/AML token sale is not available. The KYC check process will start within the platform after account has been confirmed.

Wallets and secondary market

AGC transfers must integrate   low fees, fast transaction times, and smart contract compatibility, that is why we have chosen Binance Smart Chain (BSC). We shall quantify the benefits of our community on moving on the Polkadot tokens once they are available or to stay multi platform and thus fit into both Polkadot and BSC categories (e.g. Chainlink with Ethereum). AGC tokens conform to a standard called BEP20, similar to the Ethereum standard ERC20. The token standard ensures basic functionality for the token, such as transferring, returning a balance, viewing token ownership, etc. Transaction that occurs with these tokens on-chain will require a fee paid in BNB. This fee is compensation for validators for securing the network. Tokens should be received in STAND-ALONE wallets that support BEP-20 standard. Do not use any exchange wallet for receiving AGC tokens. We are in touch with secondary market providers and we shall be announcing official partnerships by the end of the private sale stage.

Tokenomics, funds allocation roadmap

Coin Type	**BEP-20**
Symbol	**AGC**
Name	**AGCoin**
Target	**$35,000,000.00**
% of Tokens Sold to Public	**100%**
Assumed BNB Price	**$ 240.00**
Total Supply	**1,395,556**
Maximum Supply	**Unlimited**
Mining Algorithm	**Proof of Exchange**
Fixed Token Price (USD)	**$25.07960985**
Total Price (ETH)	**10 AGC / BNB**

Category	%	Tokens	Circulation	Bonus	Vesting	Description
Private Sale	7%	97,689	73,267	25%	6 Months	Bonuses are locked
Pre-Public Sale	21%	293,067	293,067	20%	6 Months	Bonuses are locked
Public Sale	43%	596,833	596,833	10%	6 Months	Locked
Team	10%	139,556			24 Months	Locked
Advisors	5%	69,778			6 Months	Locked
Marketing	5%	69,778	69,778		N/A	Not locked
Airdrop & Bounties	2%	27,911	27,911		N/A	Not locked
Developers Allocation	7%	97,689			12 Months	Locked
Total	100%	1,391,300	963,987			

Token offering
Private sale - **97,689**   25%
Presale - **298,067**   20%
Public sale - **595,833**   10%

Initial Circulation (AGC)	**963,987 AGC**	**(69.08%)**
Initial Market Cap	**$ 24,176,425**	
Approximate Amount to Raise	**$ 24,176,425**	
Softcap	**8,805 ETH**	
Hardcap	**32,219 ETH**	

TOKEN ALLOCATION

Airdrop& Bounty %2
Developers Allocation 7%
Marketing 5%
Advisors 5%
Team 10%
Fundraisding 71%

USE OF PROCEEDS

Misc and Unexpected 5%
Marketing and Business Development 18%
Legal 5%
Operational Expense 7%
Software Development 10%
Silver Mining Operations 55%