# Arable FAQ [Draft V2]


**Abstract**

Arable is the first decentralised synthetic farming protocol. **Arable synths are collateralized by multiple cryptocurrencies including ACRE (Arable native token)**. This pooled collateral model enables users to perform exchange and farm synths with the smart contract. This mechanism solves the time and fee issues experienced in current farming experience for bridges.

Synthetix already has proven that synths are secure enough to exist for trading by letting collateral providers to be the counterparty of the trades. Therefore minting traditional synths is not a problem. The challenging problem is to come up with an economic model of where the rewards from farming should be generated. As a solution, **Arable is letting collateral providers be the counterparty of yield farmers' farm and swap operations**.

The core logic is to create synths on a network that exists on the alt-chain. Synths minters are responsible for fully backing both the amount of minted assets and the rewards to be given to yield farmers. E.g. If $arSOL$ (Arable's synth for Solana) is minted on Avalanche network, minters should be responsible for $arSOL$ staking rewards. Rewards are automatically given to farmers, and the minters' debts are automatically increased evenly. This solution needs to cooperate with an oracle service for specific asset's price and farming rewards information.


**FAQs**

- **What initial products will exist on the protocol**
    - ACRE airdrop application [Will be ready before token launch]
    - ACRE staking, delegated staking and liquidity mining application [Will be ready before token launch]
    - Synths minter application for collateral providers
    - Zero slippage DEX platform that supports arable synths based on oracle price
    - UX optimized farming application to provide simple and intuitive environment for farmers
    - Governance system
    - Universal cross-chain bridge - zero slippage swap between same synths $arSOL_{Avalanche}$ / $arSOL_{Polygon}$ / $arSOL_{Cosmos}$, and also with native token $arSOL$/ $SOL$ (We could utilize

bridges available if possible - the bridge fee will be paid within ACRE inflation to support our users)

- **Where do people get ACRE tokens?**

  Minters get ACRE tokens from airdrop *(Airdrop mechanism isn't finalized yet - AVAX, SNX, PNG holders or few other partnership project token holders)*

  Buy ACRE on DEX

  Get ACRE rewards from staking and liquidity mining.

- **Are minters actually profitable?**

  Yes. By all means. Let's look at the math.

  Minter profit = $P_{minter}$

  ACRE staking rewards for minter = $SR_{minter}$

  Farming reward for minted synths = $FR_{synths}$

  Synths Farming and Trading fees paid by farmers = $Fee_{synths}$

  *Note: $Fee_{synths}$ is related to the utilization ratio of minted synths. We believe the utilization ratio of synths would be much bigger than on native chains which means more trading volume and farming events on synthetic chains.*

  Synths Minted amount = $Synths_{minted}$

  Bridging fee for minted = $BridgeFee_{minted-synths}$

  Bridging fee for reward synths = $BridgeFee_{reward-synths}$

  $$P_{minter} = SR_{minter} + Fee_{synths} - FR_{synths}$$

  If they do mirrored farming on native chain, their profit will be

  $$P_{minter} = SR_{minter} + Fee_{synths} - BridgeFee_{minted-synths} - BridgeFee_{reward-synths}$$

  Here, the **bridging fee** is related to the amount of tokens moving from the native chain to the synths chain or the synths chain to the native chain.

If a person is already farming on a native chain for the amount they minted on synthetic chain, the reward is calculated as follows $P_{minter} = SR_{minter} + Fee_{synths} - BridgeFee_{reward-synths}$

In the future we are looking to build a zero fee bridge by incentivizing bridge nodes with ACRE tokens. At that time the profit will be calculated as follows

$P_{minter} = SR_{minter} + Fee_{synths}$

This way minters won't get any risks, other than the issue of liquidation for sudden price changes for ACRE + other collateral assets and synths' price volatility.

To protect minters from liquidation risks, the protocol could delay liquidation events until it reaches, super-min-collateralization-ratio for well known minters who join our Arable mutualized insurance pool.

- **What security problems exist for minters?**

  As in synthetix, synths minters will face price volatility risk, between the synthetic assets and the native token ACRE.

  To reduce this risk, we introduce multicoin collateral mechanism maintained by governance - stable coins are part of collateral assets.

- **What problems exist for farmers?**

  The main risk for farmers is that the minters' collateral become less than the total value of minted synths for price and farming rewards. The protocol will then dynamically rebalance the fees to farmers (decrease) and minters (increase) in order to incentivise minting vs farming. The rebalancing will be adjusted using a bonding curve similar to that of interest rates on lending protocols.

- **How does it work for native token hacks?**

  To secure farmers and minters, we will introduce a mutualized insurance farming pool to allow farmers and minters to fully or partially insure against hacks.

- **What happens if Arable protocol is hacked**

  Similar to the above, to secure farmers and minters, we will introduce a mutualized insurance farming pool to allow farmers and minters to fully or partially insure against hacks.

- **Where's the liquidity for synths assets swap?**

  The collateral put on the staking contract will be taking the role of liquidity as stakers are counterparties of the swap. (Similar to Synthetix)

- **What is the detailed liquidation flow?**

  Liquidators find the position and initiate liquidate transactions.

  Liquidation is done per address. Liquidation is not done fully, the liquidation amount will be done until the collateral ratio (c-ratio) meets the target ratio.

  The detailed flow for the liquidation event for Synthetix can be found here.
- **What should be the penalty duration for liquidation?**

  It will vary with asset and native staking pools. Minimum penalty duration could be 3 days to give time to stakers.
- **What ratio should be maintained between protocol farming TVL and ACRE liquidity to make the protocol secure?**

  It is being worked on with finance experts. By design, TVL is not able to overflow.

  **ACRE_staked_amount / liquidation_threshold_collateralization_ratio**.
- **How are the actual bridge fees paid for at initial?**

  Minters will manually pay for bridge fees from the staking/farming fees and rewards they receive in ACRE.
- **What are the collaterals used for minting Arable synths?**

  We support multi collateral that is managed by governance and it will initially be ACRE, USDT, AVAX.
- **What is Debt on Arable protocol?**

  The debt is how much synths minters should provide to get back their full collateral locked in the protocol. It is determined by their debt percentage at the time of mint and the system debt being changed by farmers and traders.
- **What type of users are on the protocol,what are their roles and their rewards?**

  **Validators:** Core members of delegated stakers (At most 50) - validator role details will be provided soon - one of the most important roles is to vote on oracle voting stuff by running a provided software to submit information on-chain.

  **Governance:** Delegated stakers of ACRE

  **Minters**: Get collateral, provide collateral into the protocol, mint arUSD, sell arUSD on third party DEX and do mirror actions on native-chains to get ACRE staking reward and service fee from synths farmers and traders.

  **Farmers**: Buy synths(mainly arUSD) from Thirdparty DEX and farm them in order to receive the same yield they would get from native chains - farmers need to pay a specific fee to minters for using synths.

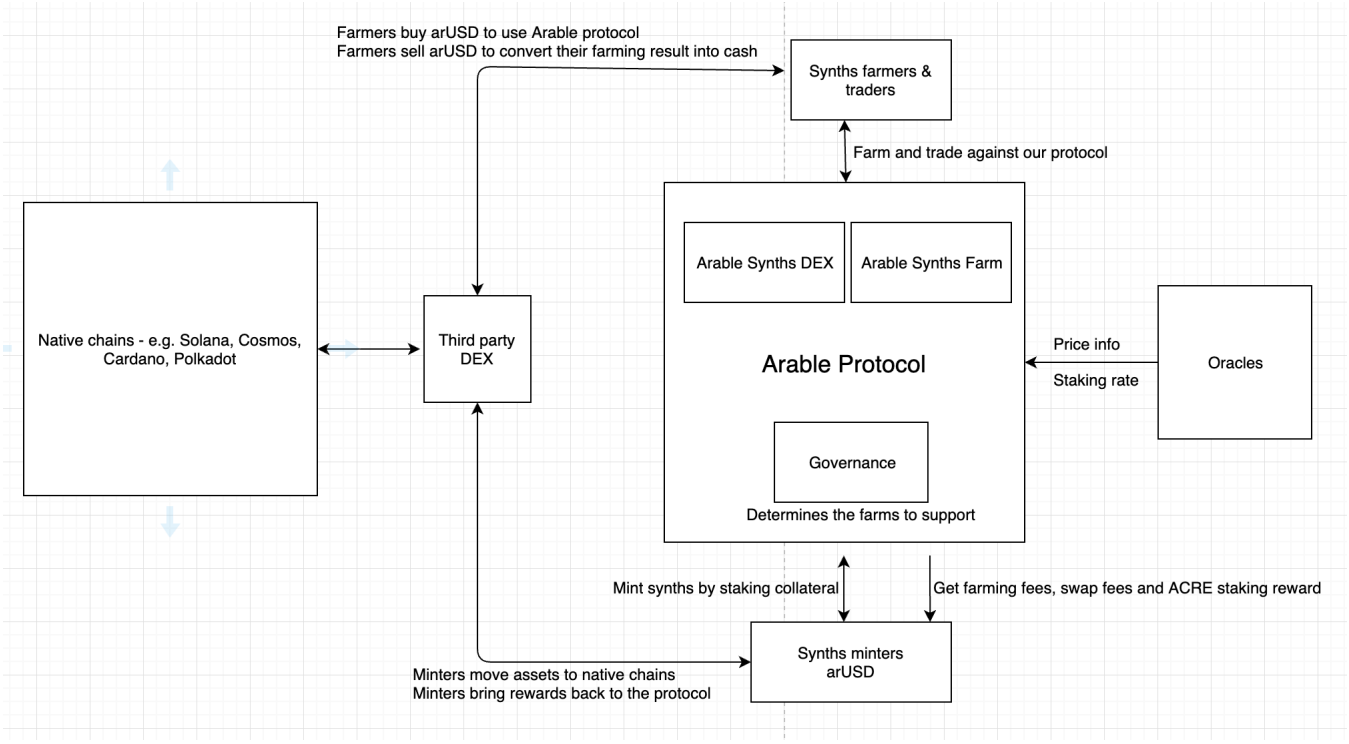
**Liquidators**: Monitor the liquidatable positions of minters that collateralization ratio does not meet and liquidate. Liquidators get rewards per liquidation event.
**ACRE LPs**: Provide liquidity to ACRE token on DEX and lock it on the liquidity mining contract to get liquidity mining rewards in ACRE.
**arUSD LPs**: Provide liquidity to arUSD / USDT pair and lock it on liquidity mining contract to get liquidity mining rewards in ACRE.

- **What type of actions exist on the protocol?**
  **ACRE staking** - General staking where users get some sort of rewards by keeping the token for a long term.
  **ACRE delegated staking** - delegated staking is appropriate for more active users where they find their trusted validator and do staking together and participate in governance actions like collateral determine process.
  **ACRE unstaking** - unlock duration could be from minutes to weeks based on debt repayment.
  **ACRE rewards for stakers** - only minters with a good collateralization ratio will receive this reward.
  **ACRE LP staking**: LP staking will be dynamic based on the level of trading fees and liquidity. Initially, LP staking will be high and diminish as trading fees and liquidity increase. The difference will go to stakers (synths minters).
  **Collateral providing**: Lock allowed collateral asset on collateral contract.
  **Minting synths**: Is it risky to give collateral for high reward synths? No. The minters get more rewards from the farming fees as long as they provide more profitable farm tokens as synths.
  **Burning synths**: Synths can be burnt either by minters who minted the tokens to reduce debt or by liquidation events.
  **Synths staking(farming)**: Farmers can farm any synths on the synthetic farming pools.
  **Synths unstaking**: Unlock duration should be set based on native chain unlock duration + bridging time + a margin.
  **Synths swap**: input token is burnt and output token is minted as in Synthetix.
  **Synths farming rewards**:The debt of minters who minted the synths should be increased proportionally based on minted amount.
  **ACRE rewards for farmers**: This is just for bootstrapping farmers and the rewards will only persist until the protocol reaches enough farmers.

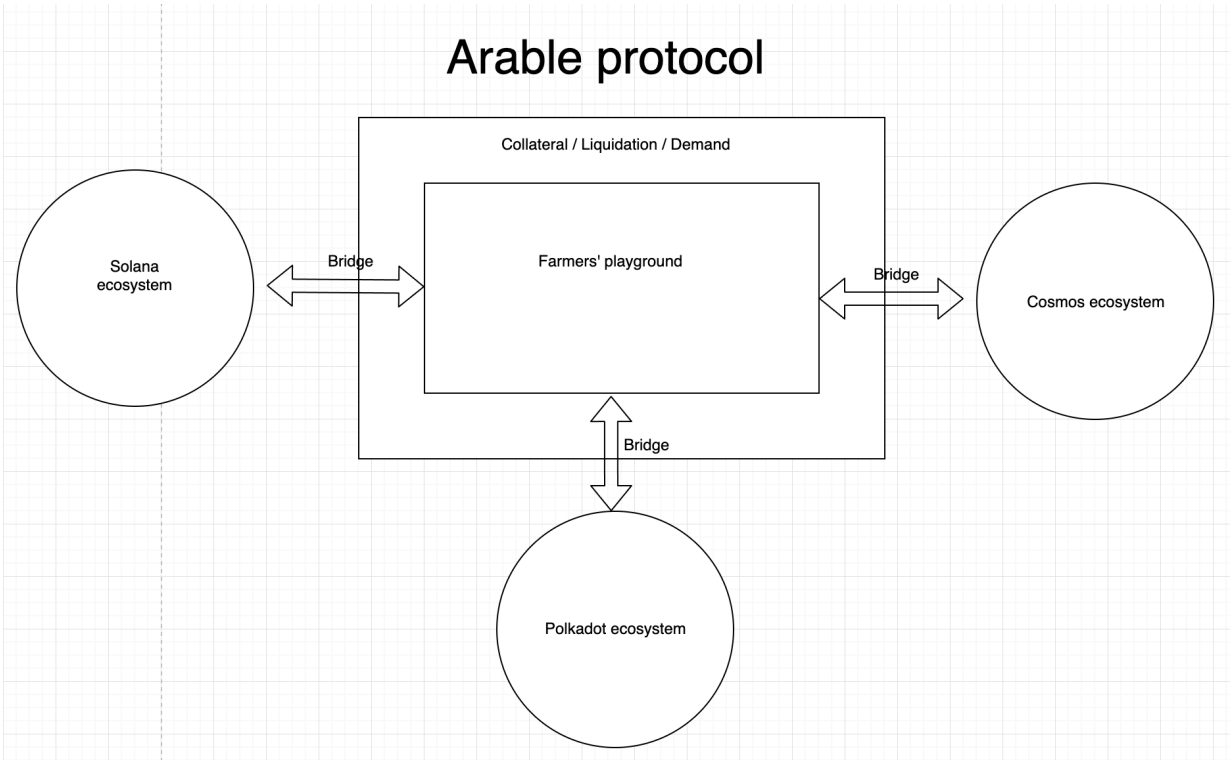
- **What is the detailed flow for minters?**
    - To mint synths on Arable, minters need to provide collateral ACRE, AVAX, USDT or other collateral asset
    - The protocol is agnostic towards whether minters do the actual farming on the native network or not. However it is common sense for minters to run actions on native chains so as not to lose on giving farming rewards to farmers.
    - The profit minters get while running the service on our platform is
      A. They get ACRE as reward based on the amounts of synths they have minted
      B. They get the synths itself that is spent by users as trading fee and farming fee
    - Minters are in charge of moving assets either to/from centralized exchange, decentralized exchange and/or cross-chain bridges.

- **What's in it for farmers**
    - Farmers provide 0.9% of their farming and trading fees to minters as minters are at the "little hands" of the ecosystem and without them there can be no farming. It's similar to the commission rate on delegated proof of staking systems.
    - Farmers provide 0.1% of their farming and trading fees to the protocol developers to incentivize developers to keep upgrading the protocol.
    - Arable incentivizes farmers to do farming on the protocol with ACRE tokens.
    - Yield farmers can farm other ecosystem's assets with nearly the same APY without using cross-chain bridges – e.g. they are not needed to cross Polkadot, Cardano, Cosmos, Solana bridges and therefore decrease operational risk while increasing productivity..
    - Traders can freely, easily and quickly trade a variety of multi chain assets while bypassing high trading and bridging fees
- **What's in it for Blockchains**
    - Other ecosystem assets like SOL or ATOM can be used widely in Avalanche based DeFi applications – This will increase flows, transactions and assets on the Avalanche blockchain. As we integrate with more and more blockchains in the future, Arable synthetics provide an elegant way to achieve full interoperability across chains.

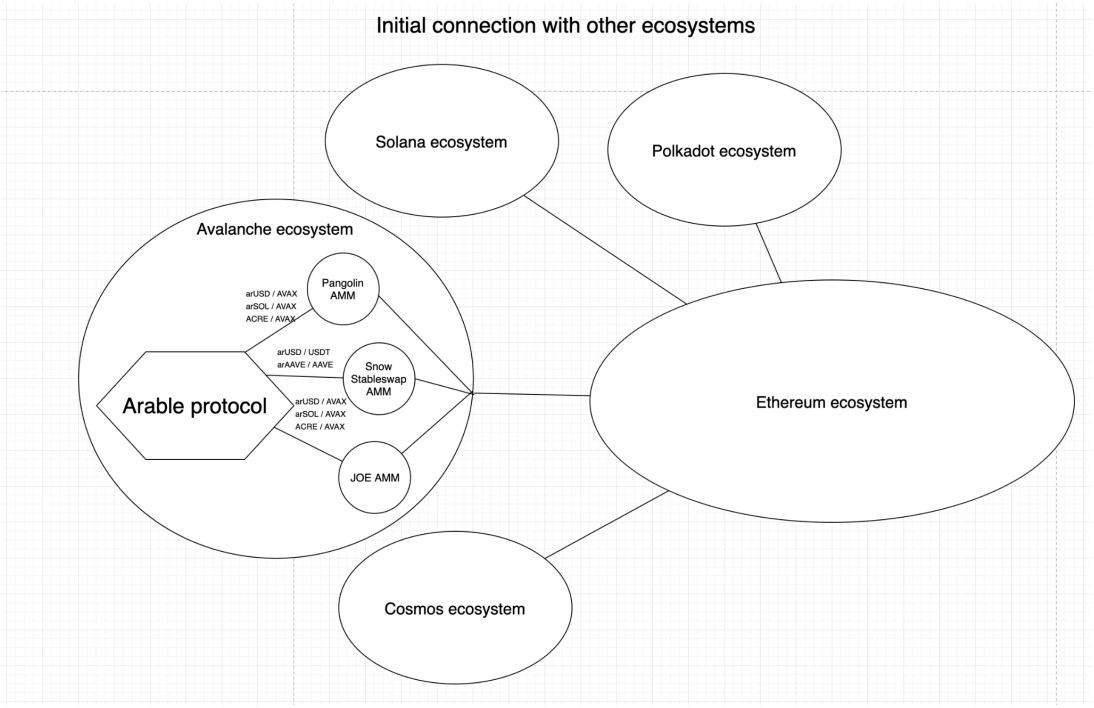
- **Arable user workflow**



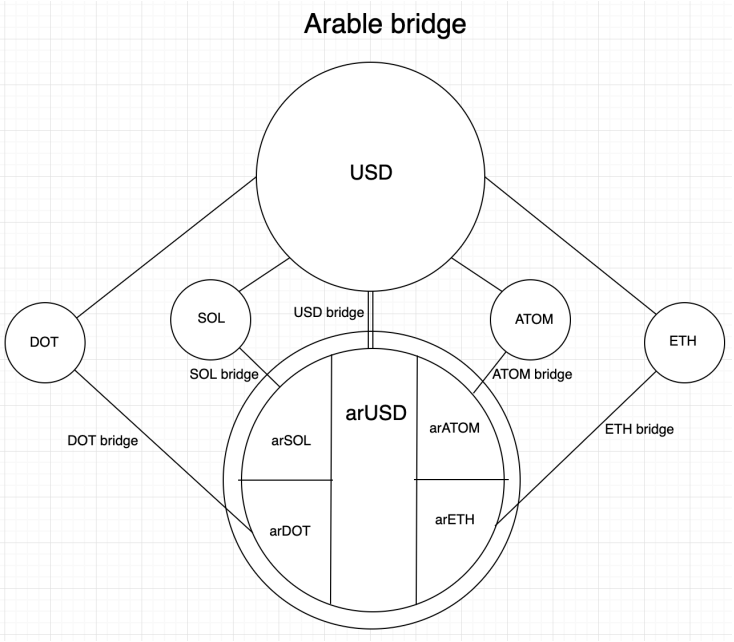

- **Arable general overview**




- **Ways to enter Arable from other ecosystems at initial**



- **Ideal connection with Arable and other tokens via direct bridge**




- **Social links**

  https://github.com/ArableProtocol/arableintro/blob/main/Arable%20Protocol%20%5BDraft%5D.pdf - Arable paper

  https://github.com/ArableProtocol/arableintro/blob/main/Arable%20FAQ%20%5BDraft%5D.pdf - Arable FAQ

  https://arablefi.com - Website

  https://medium.com/@ArableProtocol - Medium

  https://github.com/ArableProtocol - Github - source code is closed until launch

  https://discord.gg/CwW8fVwVxe - Discord

  https://t.me/ArableProtocol - Telegram

  https://twitter.com/ArableProtocol - Twitter

  https://www.linkedin.com/company/arable-protocol - Linkedin

  contact@arablefi.com - Contact email

  https://docs.arablefi.com/ - Protocol docs