SUREX

Hybrid insurance model for decentralised systems

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Abstract

Insurance is often regarded as either being a mutual organism, where everyone is going to the same place, together; or an adversarial system where the objectives of policy holders and shareholders stand opposed.

We want to demonstrate that blockchain technology enables us to create ecosystems of cooperation, where individual objectives can be mutually aligned, so instead of everyone going the the same place we can all go in the same direction... towards a better financial future.

To achieve this outcome, we propose a hybrid mutual–investment model, where we create an ecosystem for everyone to mutually benefit, even though we all aren't in the same space.

SureX
(in a cowrie shell)

- Built on the Binance Smart Chain network.
- Users can buy or coverage for items such as technological devices (phones, cameras, computers etc) — stakers split profit and yields as a reward.
- Purchase coverage using stablecoins.
- Coverage funds are invested on platforms such as Aave, Curve, Balancer, etc.
- Coverage holders can place claims easily on the SureX Platform.
- Tribunal claims mechanism to ensure every claim is assesed fairly.
- SRX tokens govern the platform.

Value Proposition

VALUE PROPOSITION

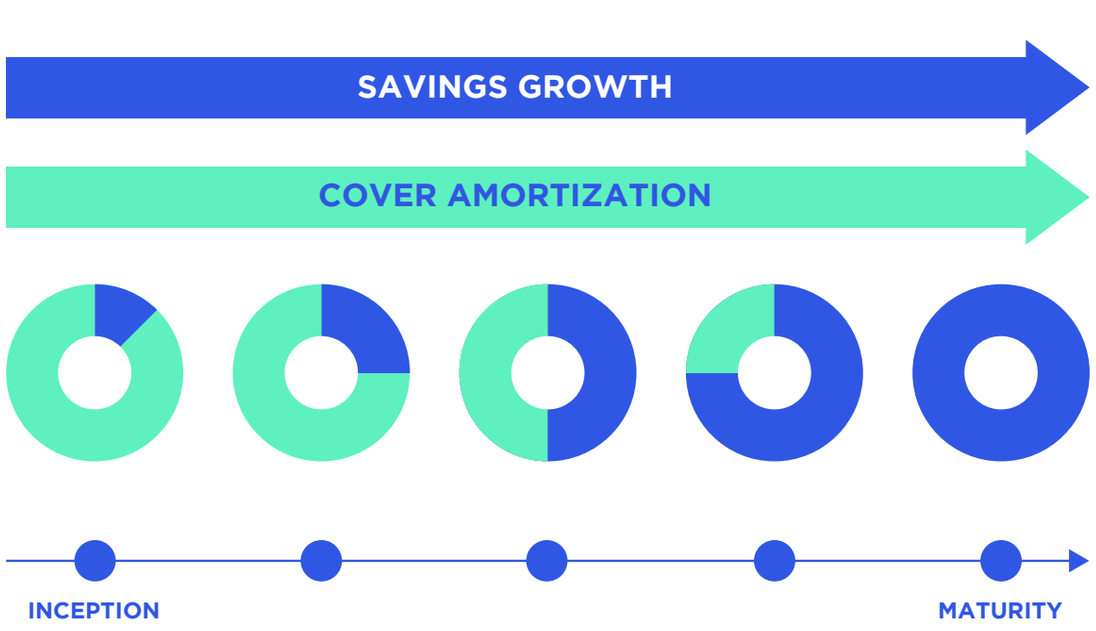
1. UNIQUE DECENTRALISED SAVINGS COVER

- Worried about your expensive equipment?
- Saving towards your next upgrade?
- Paying too much?

Join SureX Mutual. We have each other covered.

2. HOW IT WORKS

Mutual provides members with a hybrid savings insurance policy. This policy provides both insurance coverage, as well as a savings instrument that grows toward a specific target over a specific period. As the savings grow, the risk is reduced, and so too the cost of insurance, because the policy covers the outstanding balance of the savings target instead of the associated equipment.



Value Proposition

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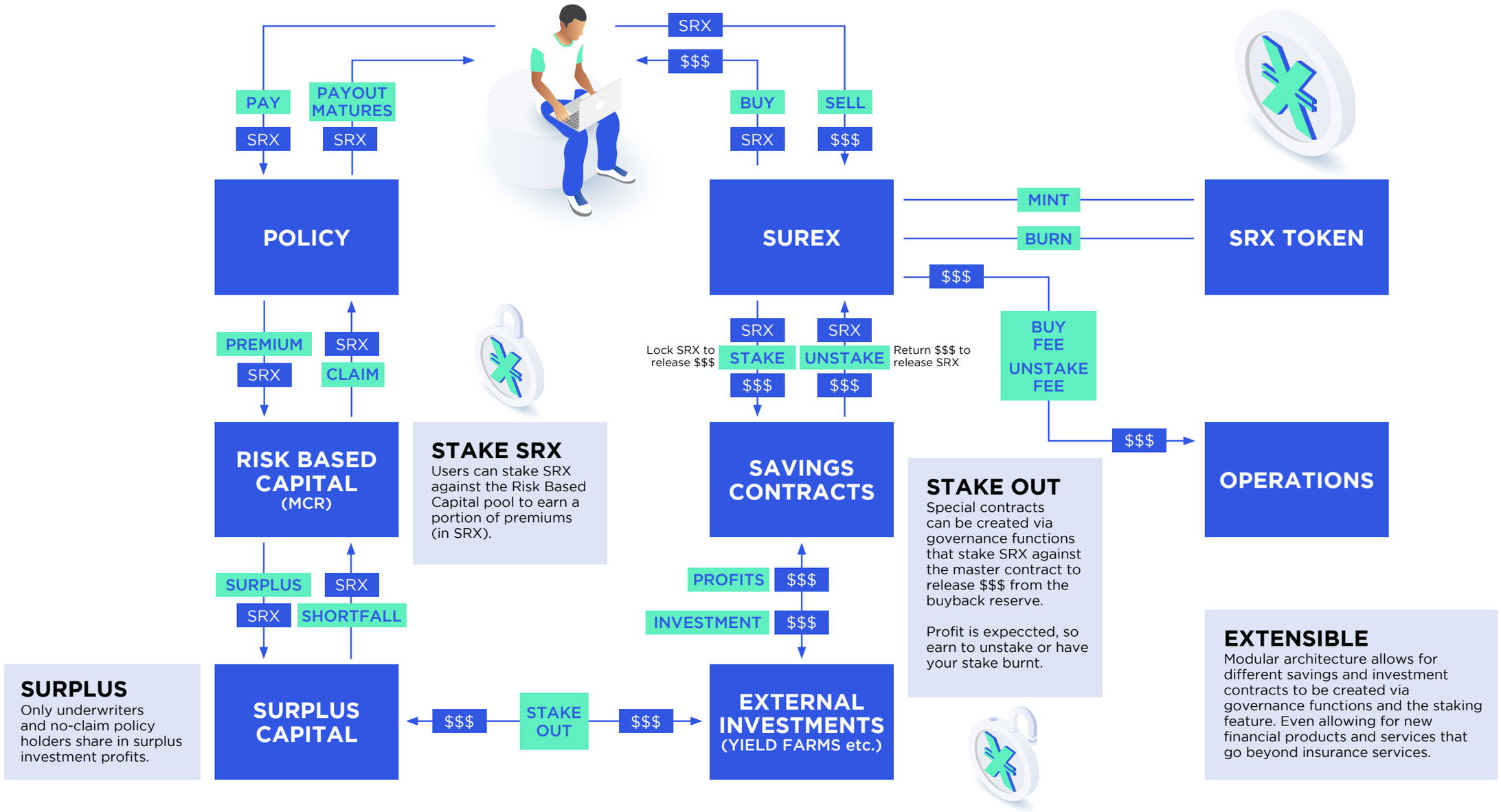
SureX Tokenomics & Revenue Model



The SureX ecosystem is operated by our native token, or the SRX. The SRX Token is a BNB/ETH-backed continuous utility token / liquidity protocol.

The user buys SRX tokens from the main contract, which channels a 2.5% fee to the Operations Pool. The user then spends their SRX tokens to pay for the policy. Payment is divided into savings and premiums for the policy. All tokens within our system remains SRX.

Our mutual insurance model provides users with a hybrid savings insurance policy. This policy provides both insurance coverage, as well as a savings instrument that grows toward a specific target over a specific period.

As the savings grow, the risk is reduced, and so too the cost of insurance, because the policy covers the outstanding balance of the savings target instead of the associated equipment.

1. TOKENOMICS

Our tokenomics is tightly bound to our revenue model.

RAISING FUNDS FOR RISK POOL & OPERATIONS

In order to raise funds we may need to bootstrap with a Continuous Securities Offering (CSO), where early investors are automatically staked into the underwriting pool to ensure we meet MCR (Minimum Capital Required).

A CSO uses a bonded curve model. For this we will need to consult external advisors with expertise in corporate finance.

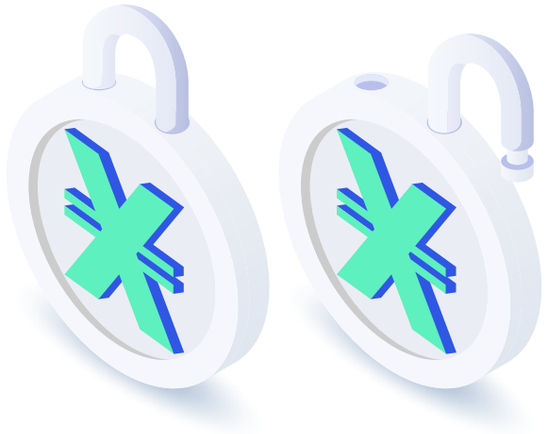
2. REVENUE MODEL

STAKING

The staking of tokens form the basis of our governance and claims procedures. This gives the system the mechanism to either reward or punish behaviour. This ensures that shareholders engage in governance actions and honour the principle of mutuality and dissuade them from acting in their own selfish interests.

SAVINGS POOL

This additional savings pool is pertinently not ours, but the policy holder's. It is part of our smart contract



though, and thus under our control (like a custodian account).

The policy holder's premium essentially gets divided into two parts: one part goes into the risk pool and the other part goes into the savings pool.

PROFIT REINVESTMENT PROTOCOL

Our ecosystem will levy a 2.5% network operations fee on all policies. This goes into the operations pool and can be used (via governance) towards rewards.

Policies that conclude with no claims against it will automatically refund a portion of the premiums as allocation to the underwriting / investment pool, earning additional income.

The operational fees can be reinvested into the reserve and then those SRX tokens are burnt. This then distributes their value accross the remaining tokens, effectively increasing the reserve rate thus raising the value of SRX tokens.

Operational profits will be used to incentivise assessors as they get to earn fees for making claims assessments. All assessments are by tribunal, meaning the first three assessors that stake to assess the claim and vote.

Majority vote wins, and if it's unanimous (3/3), the Operations pool adds and extra 10% for example.

3. GOVERNANCE

The two primary functions of our governance model are:
1. Electing claims assessors
2. Making investment decisions regarding the funds' investments, surplus, profits and float.

In order to be considered for the role of an insurance administrator (will be limited to a legal jurisdiction, geographical area or number of wallets owned), users can submit a Request for Bid (RFB) in the form of staked tokens. If they are not successful in their bids, the stake is released, and if they win the bid, their stake is put into escrow.

If the claims administrator approves bad claims, and these claims are identified, the stake bears the cost and not our pool.

If their stake diminishes below a safety threshold, their contract is terminated and they cease earning administrative fees and revenues from the associated policies, and a new bid is opened.

RISK HANDLING: AMORTIZATION

Let's look at an example of a professional photographer we call Kate: if Kate needs to replace her equipment in 3 years' time, and she insures it for $3000, we don't actually insure the equipent that she wants cover for, we insure her savings deficit.

We apply a model of amortization (shrinking premium), as we innitially insure the $3000 since her savings will have a zero balance, but as the policy matures, the savings grow and the deficit shrinks.

WHAT IS A "BENEFACTOR"?

That is when a policy holder's (Alice) contribution become the underwriting for the claim of another member (Bob), thus making Alice the benefactor of Bob's policy risk premium.

4. CLAIMS

STAKING REQUIREMENT

Users are required to stake a certain amount of tokens in order to file a claim. These tokens will automatically be staked from their savings account and they will have to deposit any deficit if needed.

If the claim is successful, the stake is released and the claim is paid from the risk pool. If the claim fails, the stake is “taxed”.

This reduces the chances of fraudulent or just incompetent claims, since the entire stake or the administrative portion therof is lost to the claimant.

The above mechanism will allow us to deal with claims on policies associated with wallets that have no standing history, risk or credit score.

IMMEDIATE COVERAGE AND CLAIMS

Well-known wallets such as those with a good history and good risk score, are allowed to open a new policy and be eligible for immediate cover without the claim waiting period.

This differentiates us from and makes us more competitive than traditional insurance products on the market.

Other users can also qualify for immediate cover if they’re willing to stake a larger amount of tokens (at a risk to them).

CLAIM WAITING PERIOD

Brand new accounts without a good standing history or the minimum staking balance requirements are subject to a claim waiting period and are not eligible to file a claim immediately.

PROOF OF LOSS

Any claim should provide a proof of loss, that will not be recorded on chain, for privacy reasons. This can be done via Zero Knowledge Proof.

A zero knowledge proof is a mathematical construct that does not reveal any additional information to any party when proving a claim. This is recorded as a data hash signed by the appointed assessor.

The proof of loss must be confirmed by the assessor and then by determined to be within the scope or outside the scope of the policy, whereupon the claim is approved or denied.

Thus the approval or denial of the claim must be contained within the zero knowledge proof. This ensures we have a non-repudiation claim either way without carrying any private information on chain.

It is critical that the proof of loss must be provided in a format where the zero knowledge proof can be easily verified, meaning care must be taken to ensure an idiomatic deterministic mechanism to provide and verify proof of loss.

We will define a protocol to establish this, as any variation will result in different hashes being created, negating the validity of a zero knowledge proof..

CLAIM ASSESSMENT TRIBUNAL

Claims will be assessed via a tribunal system of 3 parties. If the decision is unimous the decision to pay or withhold paying is upheld and uncontestable. If however there is a split vote, the decision is contestable.

If there was a denial of claim, only the policy holder can contest the decision by staking an additional amount of tokens.

If there was an approval of a claim, any other staking member can contesting it’s validity. We will include a mechanism for assessors to use this as a type of peer review.

If the vote was wrong, the assessor’s stake is burned to make recompense to either the fund or the policy holder.

This ensurs that both false positives and false negatives carry risk. A false positive is any claim that was paid that should have been denied, and a false negative is any claim that was denied that should have been paid.

Team

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Consulted on numerous projects involving the design, development and deployment of complex solutions in highly constrained environments, across various domains that include education, research, retail and finance, for commercial, non-profit and government entities.

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