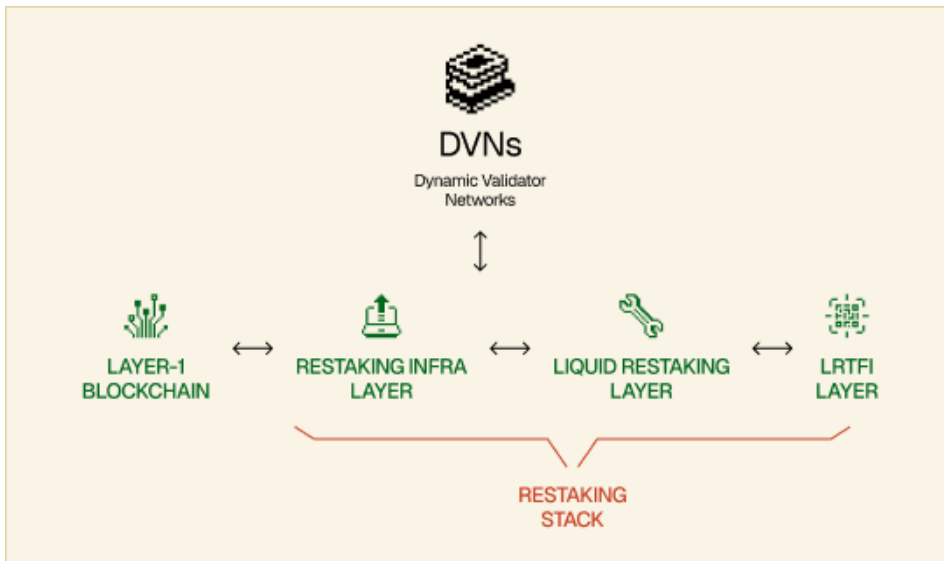


# KernelDAO : Introduction

## Executive Summary

KernelDAO envisions restaking as a transformative force in Proof-of-Stake (PoS) ecosystems. By unlocking shared security and additional reward generation, restaking enables greater capital efficiency and 10x cheaper crypto economic security.

Since the launch of restaking in Jun 2023, a robust 'restaking stack' has been developed on Ethereum that now functions as a bedrock for building a wide range of new services and middleware.



We believe that the 'restaking stack' will be an omni-chain phenomenon owing to its universal utility and we aspire to be a core pillar of this omni-chain restaking architecture.

KernelDao, today, offers 3 product categories - each positioned strategically within the 'restaking stack' to address distinct market needs and to provide a strong foundation for

expansion into top opportunity verticals across restaking, DeFi and RWAs.

1. **Kernel:** Shared security product on BNB Chain leveraging BNB, BTC and other rewards bearing assets.
  - USD ~300 Mn TVL within a few weeks and 25+ ecosystem projects.
  - 100's of middleware leveraging restaking
  - Roadmap includes expansion to multiple ecosystems
2. **Kelp LRT (rsETH):** Top Liquid Restaking on Ethereum offering instant liquidity and higher rewards opportunities on restaked assets.
  - Second largest LRT on Ethereum with USD ~\$2 Bn in TVL.
  - 400,000+ unique restakers and integration with 50+ DeFi platforms, including major Layer 2 solutions.
3. **Gain:** Non-custodial automated Yield Vaults on Ethereum offering one-click rewards maximising solutions to users.
  - USD 200 Mn+ TVL across within a few weeks of launch
  - Roadmap includes expansion into Bitcoin and RWA-based targeting multi-trillion-dollar potential.

## Tokenomics

The \$KERNEL is the unified token across the three product offerings of the KernelDAO ecosystem, powered by \$KERNEL's utilities and community centric token distribution.

# KernelDAO Ecosystem: Core Product Offerings

## 1. Kernel

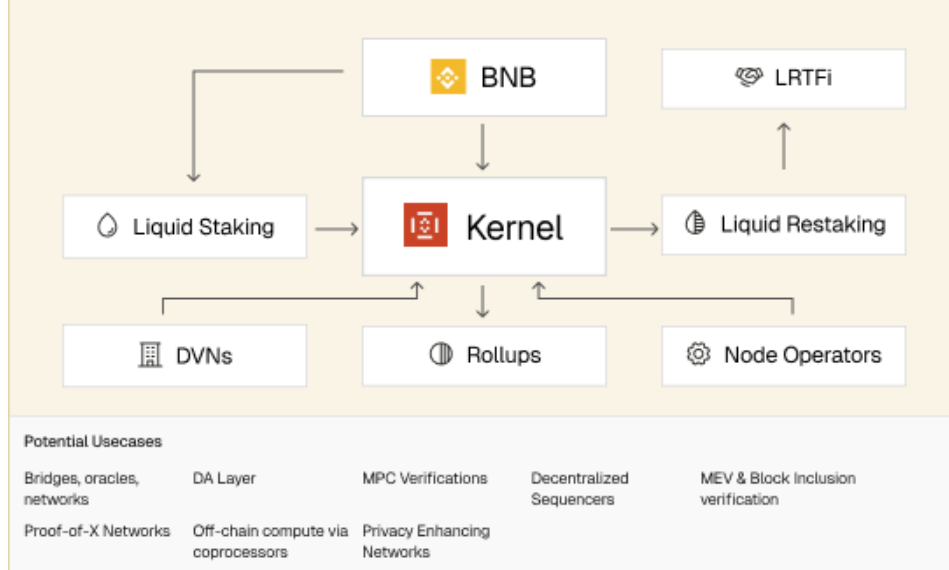
Kernel is the core infrastructure layer of BNB's restaking stack, enabling simultaneous security provisioning across multiple services with enhanced reward opportunities. Its innovative pooled security architecture drastically reduces the cost and complexity of establishing security guarantees.

Since its mainnet launch on December 12, 2024, Kernel achieved the following milestones:

- USD 300 Mn+ TVL restaked for shared security
- 25+ projects are building on Kernel, including Mira Network, ElectronZK, Oxbridge, YieldNest, Bedrock, StakeEase, and AutoLayer.

### **Core Benefits:**

- For Distributed Validator Networks (DVNs): Access shared security at 10x to 100x lower cost with immediate network integration.
- For Delegators: Earn rewards on their assets and unlock capital efficiency
- For Operators: Increase operator revenue with multi-node validation



## 2. Kelp Liquid restaking (rsETH)

Kelp's LRT, rsETH, is one of the first and largest Liquid restaking tokens on Ethereum, designed for enhancing liquidity, rewards and convenience for the staking ecosystem. It offers several benefits for staking ecosystem participants including restakers, AVS' and Operators.

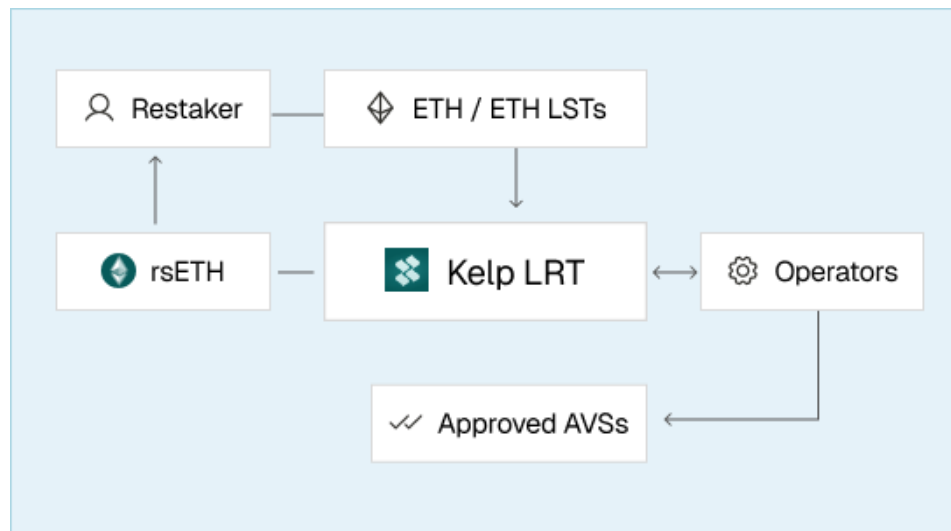
Since its mainnet launch on December 2024, Kelp's LRT has achieved significant growth including:

- USD ~2 Bn+ TVL, second-largest LRT on Ethereum.
- Over 400,000 unique restakers.
- 50+ DeFi integrations including Aave, Compound, Morpho, Fluid, Balancer etc.

### Core Benefits:

- **For Restakers:** Immediate liquidity, simplified risk management, and enhanced rewards.
- **For Operators and AVS:** Streamlined partnerships, efficient access to restaked security, and reduced reward emissions.

## Illustration: Kelp's LRT underlying model



## 3. Gain

Gain represents a sophisticated suite of non-custodial reward vaults that automate diverse reward strategies across DeFi, CeDeFi and real-world assets (RWAs). Designed to enhance rewards and simplify complex strategies in a single vault, Gain offers a lot of convenience and composability to users.

### Key achievements and Flagship Products:

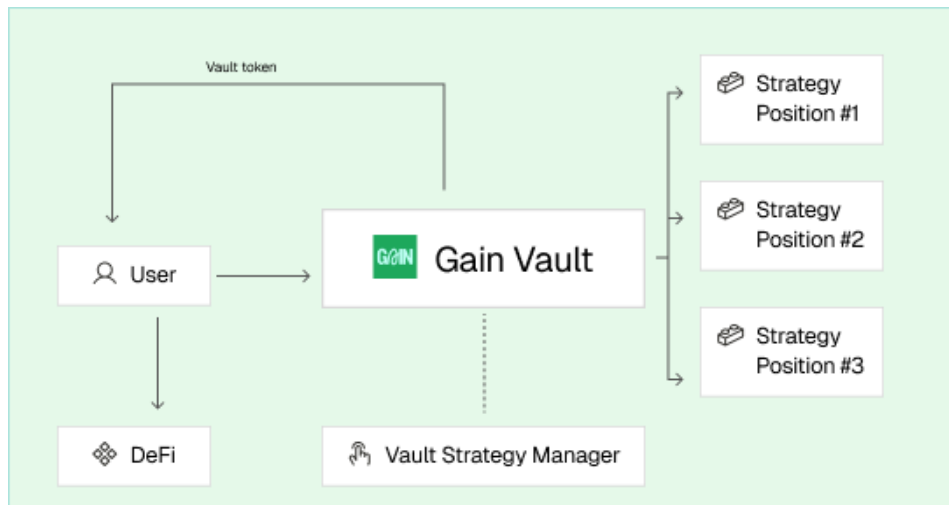
- **Airdrop Gain Vault (agETH):** Achieved USD ~150 Mn+ in TVL. Boosts rewards from 4-5 premium Layer 2 airdrops alongside base staking and restaking rewards.
- **High Gain Vault (hgETH):** Provides best risk-adjusted rewards across DeFi leveraging professional management expertise. Achieved USD ~40 Mn+ TVL within a couple of weeks after launch.

### Core Benefits:

- **Automated deployment:** Reduces complexity, enabling automated and convenient rewards management.

- **Professional Management:** Unlock institutional-grade reward strategies through a unified platform.
- **Composability:** Liquid vault tokens maximize capital efficiency and additional reward opportunities across DeFi.

**Illustration:** Gain's underlying model



# \$KERNEL Tokenomics

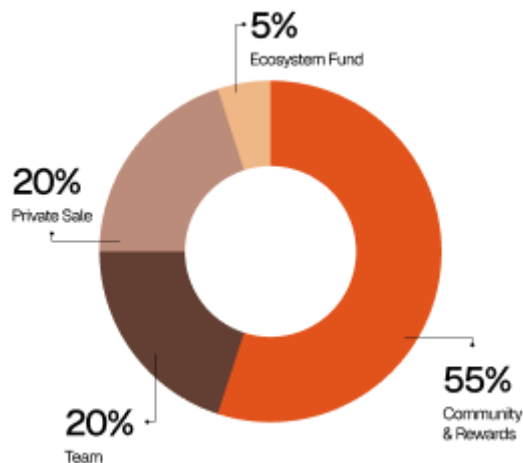
Kernel token (\$KERNEL) is the common governance token for the Kernel, Kelp LRT and Kelp Gain ecosystems and it will play an integral and unifying role in the ecosystem.

\$KERNEL has its total supply capped at 1 Billion tokens and a user-centric token distribution model with the majority of the token supply (55%) allocated to users and the broader community.

## Token Distribution

Total Supply: 1 Billion

Distribution: Refer to illustration



## Token Utility

\$KERNEL will have several utilities across the Kernel and Kelp ecosystem products. Below are key utilities for the \$Kernel token:

### 1. **Kernel shared security:**

- a. Staked \$KERNEL to be used as economic security for applications building on Kernel platform

### 2. **Slashing Insurance:**

- a. Staked \$KERNEL tokens to provide insurance against any rsETH slashing events and earn a share of protocol rewards in return
- b. Staked \$KERNEL tokens to provide insurance against any slashing events on Kernel platform and earn a share of protocol rewards in return

### 3. **Governance:**

- a. Kernel platform: Participate in all governance decisions related to Kernel platform, fees, slashing conditions etc.
- b. LRT & Gain: Participate in protocol governance by voting on AVS selections & rebalances, operator related proposals, platform fees and more.



# KernelDAO Business model

## KernelDAO products

- **Kernel**

1. The kernel platform is free for all stakeholders right now. Kernel will potentially charge small commission on Restaking

- **Kelp LRT Gain:**

1. Kelp LRT charges commission on Staking and restaking rewards
  - a. Commission on ETH staking rewards

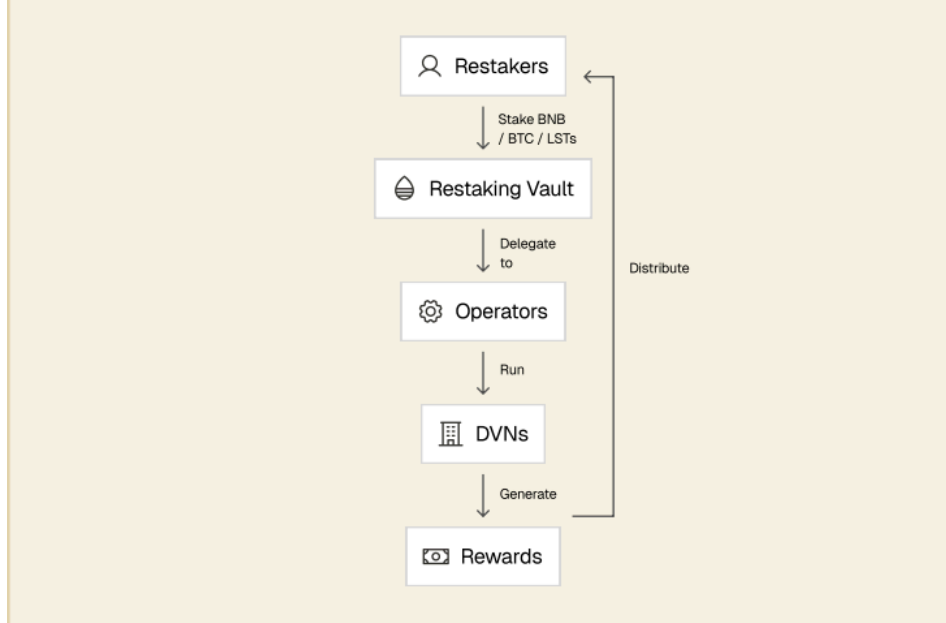
- **Kelp Gain**

1. Fees for Air drop Gain: 2% Management fees
2. Fees for High Gain: 1% Management fees, 20% fees on Rewards

## Technical Architecture

Product 1: Kernel is the shared security protocol on BNB Chain. Launched in December 2024, users can perform restaking and unstaking of whitelisted assets on Kernel. Delegations to operators and DVNs will be implemented over the next few weeks.

## Restaking flow:



## Unstaking/ Withdrawal flow:

The withdrawal process is designed to ensure secure return of assets to stakers. When a staker initiates withdrawal, the system verifies the operator's standing and ensures completion of any active DVN tasks. Withdrawal amounts may be affected by slashing conditions if the operator has engaged in malicious behavior.

For more information, please refer to the docs on this [link ↗](#).

## Security Measures:

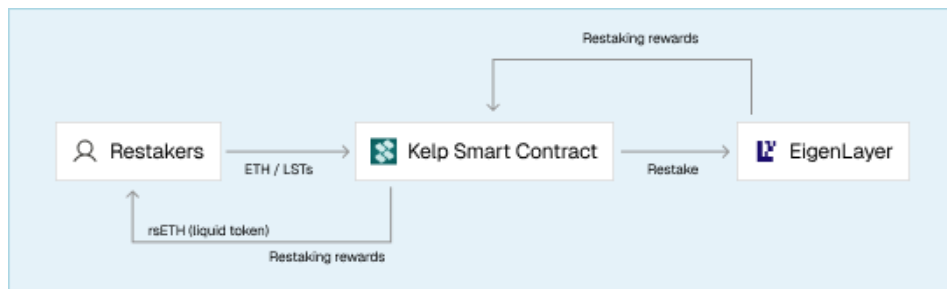
Kernel's protocol has been thoroughly audited by leading industry experts to ensure the highest security standards in blockchain infrastructure. This critical audit evaluates key protocol components, including restaking mechanisms, operator management, and middleware integration. Below are the audit reports for details.

[Bailsec ↗](#)[Report ↗](#)[ChainSecurity ↗](#)[Report ↗](#)

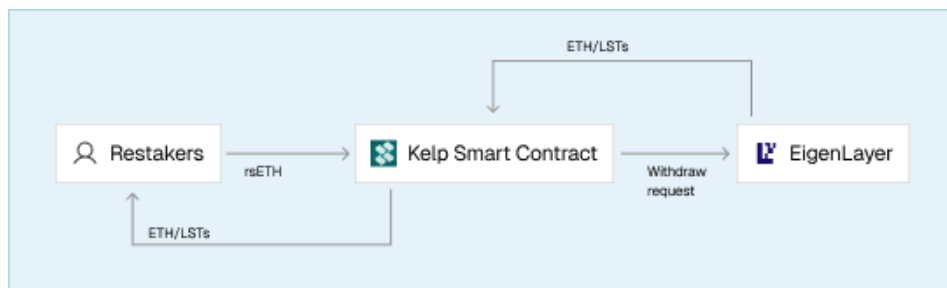
## Product 2: Kelp LRT (rsETH)

rsETH smart contracts are designed to isolate deposits, delegations, and withdrawals. These contracts provide a separation of concerns, reducing the surface area of risk.

Deposit flow:



Withdrawal flow:



## Security Measures:

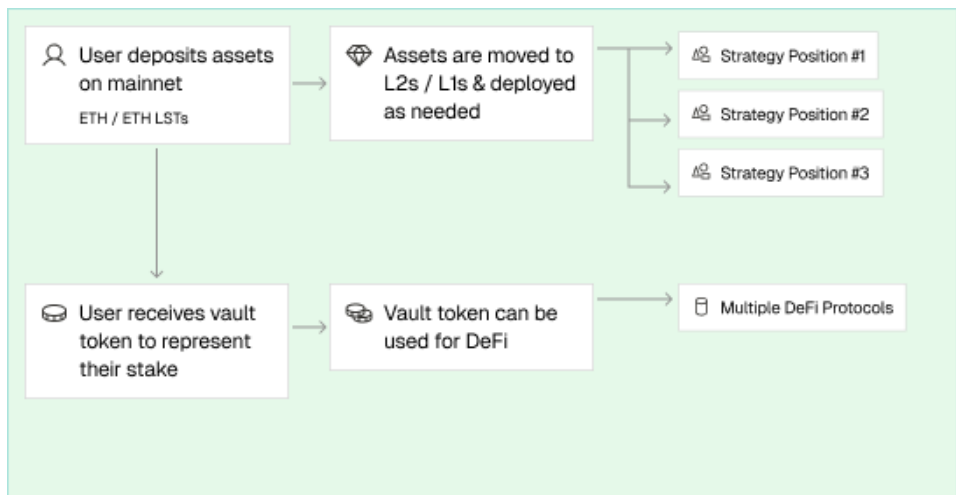
An important part of Kelp's development process is to keep the deposited assets safe and secure. And we take great measures to ensure the same.

1. Audits: Kelp's smart contract has undergone multiple rounds of Audits from renowned auditors to make sure that

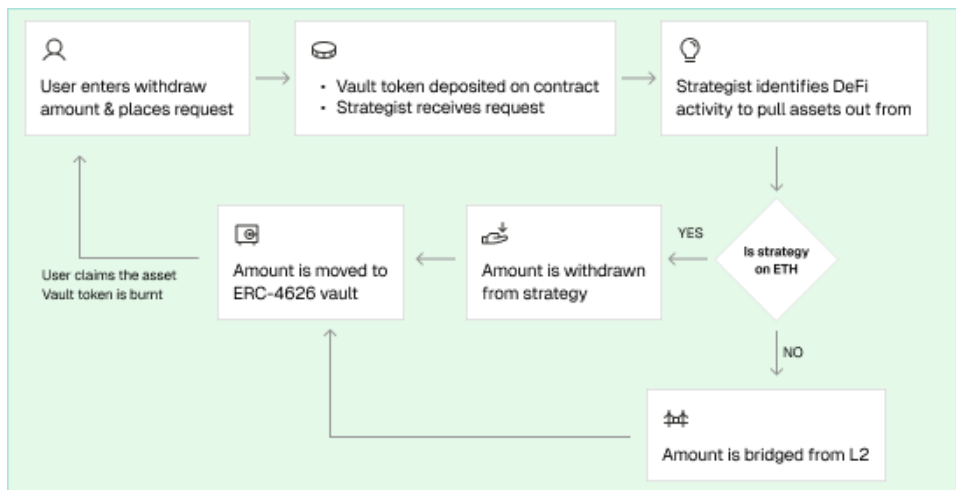
there are no gaps that can be exploited by bad actors. The latest audit reports can be found [here](#).

## Product 3: Gain

Deposit flow:



Withdrawal flow:



## Security Measures:

Similar to Kernel and Kelp LRT, Gain also has undergone extensive audits. The report can be found [here](#).

# Vision and Roadmap

## Vision

The KernelDAO ecosystem is designed to capture multiple market opportunities, including

- Liquid restaking for Ethereum and other major assets.
- Restaking infrastructure across L1s like BNB Chain, and beyond.
- Tokenized DeFi, CeDeFi, RWAs, bridging the gap between DeFi, CeFi and traditional finance.

By delivering robust products and fostering innovation, we aim to redefine the DeFi landscape and create lasting value for all stakeholders.

## Kernel Roadmap

**Q2 2025 - Operator Testnet launch**

**Q3 2025 - Operator Mainnet launch**

**Q3 2025 - Middleware Testnet launch**

**Q4 2025 and beyond - Middleware Mainnet launch and slashing introduction**

## Kelp LRT Roadmap

**Q2 2025 - Onboarding of rsETH onto Aave L2 markets. Capacity expansion across Aave core**

**markets, Spark and other major lending markets**

**Q3 2025 - Continued expansion to multiple L2s  
and capacity expansion across lending markets**

**Q4 2025 and beyond - Continued expansion  
across L2s and distribution/ wallet partners**

## **Kelp Gain Roadmap**

**Q2 2025 - Expansion of Gain vaults to BTC and  
Stablecoin assets**

**Q3 2025 - Expansion into RWAs, CeDeFi vaults**

**Q4 2025 and beyond - Expansion into multiple  
asset classes across RWAs**