ΔPEX FUSION

TOKENOMICS

JAN. 2025

TABLE OF CONTENTS

1. Introduction......2
2. Token Utility......3
3. Design Framework...... 4
    3.1 Assumptions...... 4
        3.1.1 Legal Framework: Striking A Balance Between Barriers And Enablers Of Innovation......4
        3.1.2 Balance Across Various Stakeholders......5
        3.1.3 Sophisticated Web3 Protocol Treasury......6
        3.1.4 Lock-up Schedules......6
        3.2 Risks......7
        3.2.1 External Risks......7
        3.2.2 Scope Creep Risk......8
        3.2.3 Schedule Risk......9
        3.2.4 Funding Risk......10
4. Token Allocation...... 11
    4.1 Entities......12
        4.1.1 Foundation......12
        4.1.2 Decentralized Labs......13
    4.2 Token Distribution By Purpose...... 13
        4.2.1 Community And Ecosystem...... 13
            InFusion Funding......14
            Grants......15
            Venture Fund......15
            Liquidity......16
        4.2.2 Staking Rewards......16
        4.2.3 Airdrops......16
            Initial Airdrop...... 17
        4.2.4 Contributors......18
        4.2.5 Operations......18
        4.2.6 Investors...... 20
    4.3 Unlock Schedule......20
5. Fees And Mechanics......21
    5.1 Transactions & Gas Fees......21
    5.3 Staking Fundamentals...... 23
    5.4 Initial APY & Staking Limits......24
    5.5 Projected Staking Ratio...... 26
    5.6 Initial Staking Projections......26
6. Disclaimer...... 28

1. INTRODUCTION

The APEX utility token fuels the Ouroboros Consensus mechanism, which is the engine of the initial Fusion tri-chain architecture. It enables access to the infrastructure and seamless interaction between the Fusion blockchains, protocols, bridges, and decentralized applications.

Staking APEX is crucial for securing the network. Stakers earn rewards for operating nodes, validating transactions, and maintaining integrity. Actions that contribute to the success and development of critical network infrastructure drive higher reputation scores.

The APEX Fusion Foundation promotes the delegation of APEX tokens to various staking pools, supporting community-centric projects and ensuring decentralized evolution.

The Apex Fusion Litepaper provides additional details about our ecosystem with a high-level technical overview.

THE PRESENT TOKENOMICS DOCUMENT AND/OR ANY OTHER ACCOMPANYING DOCUMENTATION ("DOCUMENT") ONLY PROVIDE EDUCATIONAL MATERIAL ABOUT THE TOKENOMICS OF THE APEX FUSION NETWORK AND THE APEX TOKEN. PLEASE NOTE THAT THE APEX FUSION NETWORK AND THE APEX TOKEN ARE UNDER ACTIVE DEVELOPMENT AND SUBJECT TO CHANGE. THE APEX FUSION FOUNDATION MAY CHANGE THIS DOCUMENT AT ANY TIME AT ITS SOLE DISCRETION WITHOUT NOTICE.

2. TOKEN UTILITY

The APEX token serves as the primary token within the Apex Fusion ecosystem, with a myriad of utilities underlining its significance:

- **Access to network infrastructure:** The APEX token is primarily used to interact with Fusion blockchains, protocols, and deployed decentralized applications.
- **Transaction Fees:** The APEX token covers transaction fees across the Fusion ecosystem. The tri-chain structure ensures varied costs for different use cases: the Prime network, as a decentralized L1 liquid staking security layer, will have higher fees, whereas Nexus and Vector L2 layers prioritize cost-effectiveness, speed, and scalability. These transaction fees support vital operational aspects like transaction processing, network security, bridge functions, and validator rewards.
- **Intra-Fusion chain transfers:** The APEX token plays a crucial role in enabling seamless transfers between the interconnected chains of the Fusion ecosystem through the native **Reactor router**.
- **Staking Rewards:** APEX staking strengthens the network and enhances its security. By staking APEX tokens, users earn rewards, fostering long-term engagement and loyalty.
- **Delegation and Reputation:** the Fusion reputation system will play a key role in stakeholder management and governance. The APEX Fusion Foundation promotes the delegation of APEX tokens to various staking pools, supporting community-centric projects and ensuring ecosystem evolution.

3. DESIGN FRAMEWORK

The APEX tokenomics design started from industry standards for L1 protocols in the past 2 years, taking into consideration the following design goals:

1. Prioritizing community allocation of APEX tokens.
2. Ecosystem's sustainability.
3. Significant allocation to builders.
4. Active governance based on meritocracy and contributions.
5. Pragmatic approach for quick and efficient ecosystem support.
6. Voluntary inclusion in the ecosystem that doesn't require blockchain forks or airdrops without clear criteria.

3.1 ΔSSUMPTIONS

In creating the tokenomics framework, addressing the assumptions we've made is crucial because we don't operate in an environment with complete information.

Since their certainty cannot be fully confirmed, it is vital to recognize that some areas and topics will demand further attention and adjustments as we gather more information.

3.1.1 LEGAL FRAMEWORK: STRIKING A BALANCE BETWEEN BARRIERS AND ENABLERS OF INNOVATION

Blockchain solutions emerged as a response to the inefficiencies of traditional systems, offering a decentralized alternative. In the early days, development occurred in a regulatory vacuum, often referred to as the "Wild West," lacking clear legal frameworks. This ambiguity hindered innovation and left participants vulnerable to exploitation.

Significant progress has been made since 2009, and Apex Fusion aims to leverage the evolving regulatory landscape. By integrating legal and regulatory considerations into its framework, Apex Fusion seeks to establish a secure and sustainable environment for builders, creators, contributors, users, investors, and other stakeholders, fostering innovation while ensuring protection.

Recognizing the importance of compliance, Apex Fusion will implement stringent policies based on guidance from one of the most reputable Swiss law firms. These policies will dictate the deployment of the genesis block, primary token distribution categories and allocations, the purpose of future distribution, eligibility criteria, KYC requirements, and other legal obligations for participation in token sales. Geographical restrictions may also be imposed to align with regulatory mandates.

After the tokens are issued, the Foundation, as the network steward responsible for the genesis block, will adhere to local legal frameworks and meticulously report activities. This strategy ensures compliance while laying the groundwork for a fairer, more inclusive system in the future.

By prioritizing regulatory compliance, Apex Fusion endeavors to instill trust and confidence in its community, creating a robust ecosystem conducive to growth and innovation.

3.1.2 BALANCE ACROSS VARIOUS STAKEHOLDERS

The Token distribution needs to achieve certain goals among various stakeholders within acceptable Web3 industry standards in 2024. Layer 1 projects that had TGE in the period 2022-2024 identified several stakeholder groups with very wide definitions, such as community, ecosystem growth, contributors, and treasury. We're making the following assumptions regarding the stakeholders:

1. A clear definition of each stakeholder group in token distribution is mandatory.
2. Multiple entities developing protocols (Labs) offer an advantage compared to a single monolith development company.
3. Technology, community building, and strategic growth require specialized independent groups of experts to deliver in a decentralized way.

4. The sustainability of each group can benefit from the primary APEX token allocation.

5. The best results can be achieved when technology builders present one of the main sources of token supply.

3.1.3 SOPHISTICATED WEB3 PROTOCOL TREASURY

Traditional Web3 treasuries shielded behind complex governance processes (such as DAOs) are not necessarily efficient. Until better battle-tested and working governance models are validated, the Swiss Foundation will govern an important part of APEX tokens. **The Foundation is legally bound to use its funds for its purpose (i.e., develop and foster Apex Fusion and support for the community and ecosystem).**

Decision-making needs to be efficient and quick while being supported by a legal framework.

1. Efficient utilization of rewards for the growth of the ecosystem instead of token sales

2. Legal constraints ensure minimal consumption of APEX token allocation by the Foundation, with legal penalties for mismanagement of the funds.

3. The Foundation needs to prioritize the delegation features of the APEX token.

3.1.4 LOCK-UP SCHEDULES

Token allocations require a clear lock-up schedule for each stakeholder group. Specific categories of contributors may be subject to legal requirements, e.g. best practice implies a lock-up period between 1 and 3 years, depending on the investment round and legal frameworks.

Builders require immediate fiat liquidity in order to fund their activities, but they are still bound to long-term relationships through unlock based on their contributions and deliverables.

Very well-designed airdrop mechanisms reward network participation and prevent the abuse of short-term incentives:

1. Transparent unlock schedules and clear definitions of token allocations,linear
2. Avoiding major cliffs through linear unlock schedules provided to all groups,
3. Clear communication and reporting structures for token unlocks and token usage.

3.2 RISKS

Risk refers to the possibility of events that may affect the outcome of a project. Tokenomics design must anticipate risks and put processes in place to mitigate or manage them when they arise.

3.2.1 EXTERNAL RISKS

External Risks are risks that are beyond project control, such as the threat of new competitors, adversary individuals, or changes in economic conditions. **It's essential to assess the external environment surrounding your project early during project initiation and planning to identify potential risks.** Some of the top external risks that need to be considered:

1. Various stakeholders have **different goals** they are trying to achieve without acknowledging all necessary details. In the Web3 industry, individuals jump to conclusions and drive semi-baked narratives.

   Proper education and persistent activities that explain the project's specifics (e.g., why some design choices are made) can mitigate this risk.

2. **Open-source tech** is made for contributors to reutilize and, arguably, improve it. In Web3, this usually comes with an initial backlash that takes time to mature and change the narrative (e.g., the Initial Polygon L2 POS launch with modified Ethereum tech).

Acknowledging the feedback and providing reasoning for certain decisions with working technology and objective metrics can mitigate this risk.

3. **Tribalism and fragmentation in Web3** provide a challenge requiring tokenomics that adapts to project goals. Addressing and incentivizing different established Web3 ecosystems to participate requires balance and gradual pre-launch and post-launch activities.

   To mitigate this risk, multiple communities are addressed fairly based on planned timelines and incentives. Airdrops need to cover multiple ecosystems. Builders from different ecosystems need to work together and raise their deliverables' quality based on their experience.

3.2.2 SCOPE CREEP RISK

Scope Creep Risk occurs when tasks are added to the project scope without proper approval, causing the scope to grow uncontrollably. This directly impacts project schedules and budgets. Having flexibility in tokenomics design to react on time to this kind of risk is necessary. Some of the top risks are:

1. **Unplanned ecosystem growth or decline** that cannot be addressed through the stewardship provided by the Foundation. The growth of a new ecosystem requires significant investments that vary with market cycles. The Foundation will support the growth of the ecosystem with large amounts of tokens and deploy them via delegation through the InFusion protocol. The ability to react quickly to major opportunities or threats is crucial for project success.
   Having clear governance processes that prohibit major and sudden influence on the ecosystem dynamics (e.g., dynamic inflation based on market conditions) mitigates this risk.

2. **Changes in legal frameworks** require timely and strategic pivots to ensure the ecosystem's goals are being reached. The Web3 compliance process is a major challenge that requires persistent adoption of new frameworks.

   Having entities in multiple friendly jurisdictions with specific purposes that are planned in advance so they don't require changes in tokenomics (e.g., a

Venture Fund allocation that will be established in the future to fund ecosystem projects) helps mitigate this risk.

3.2.3 SCHEDULE RISK

Whenever there's a high likelihood of not meeting the planned project schedule, it's considered a schedule risk. Causes include incorrect activity duration estimates, neglecting the critical path, or overlooking necessary resources for work completion. Some of the major risks are:

1. **Rollout of the new ecosystem** with critical infrastructure and key components. Setting up new infrastructure and liquidity takes time, mostly because of external dependencies such as new code releases, exchange listings, or legal frameworks for certain activities.
   To mitigate this risk, entities must have a clear purpose, accountability, and mandate given by the Foundation. For example, if there are major breaches in agreements, the Foundation can revoke token delegation to certain entities and stop further funding (for more details, see 4.2.1 "Infusion Funding.").

2. **Token unlocking periods** don't align with market needs for critical infrastructure for ecosystems to thrive. Certain unlock schedules and fallbacks for contingency budgets need to be in place to mitigate risks within the legal framework. For example, if a bridge to a new ecosystem is deployed, it could require additional funds for liquidity operation. Entities should be able to provide the tokens needed to bootstrap operations and withdraw them once the critical period is over instead of relying on the community effort.
   Mitigation of this risk is a clear process and transparency of the use of the funds by the Foundation entities under legal regulations within the Litepaper and Tokenomics paper goals (for more details, see 4.2.1 "Infusion Funding.").

3. **Team unlock periods and allocations** are usually the most sensitive to project success. Tokenomics needs to ensure that core contributors and related parties are properly compensated based on their deliverables but with the longest and most radical lock-up periods compared to other stakeholder groups.

Mitigation of this risk is using systems such as a reputation system and an endorsement center to ensure that the Foundation fairly and transparently rewards builders based on their deliverables (for more details, see 4.3 “Unlock Schedule.”).

3.2.4 FUNDING RISK

Funding risk occurs when actual project execution costs exceed the planned budget. Managing financial risk involves monitoring expenses and adjusting as needed. Financial risk in tokenomics mainly propagates to frictionless operations of the entities building and catering to the ecosystem. Some of the financial risks in the context of tokenomics are:

1. **Initial financing** enables the project's launch and initial runway. We believe that token allocation to this round should be significantly lower than current industry standards (3.8% vs. 10-30%). Given the tokens' lock-up, the initial supply would ideally come from airdrops.

2. Real **inflation rates and transaction fees** vary over time because of many protocol and external variables. The process of changing protocol parameters needs to be lean, transparent, and timely to ensure the success of the ecosystem goals raised in the Litepaper and Tokenomics paper.

   To mitigate this risk, a process must be created to ensure that protocol parameters take into account the environment and different stakeholder goals and adjust accordingly.

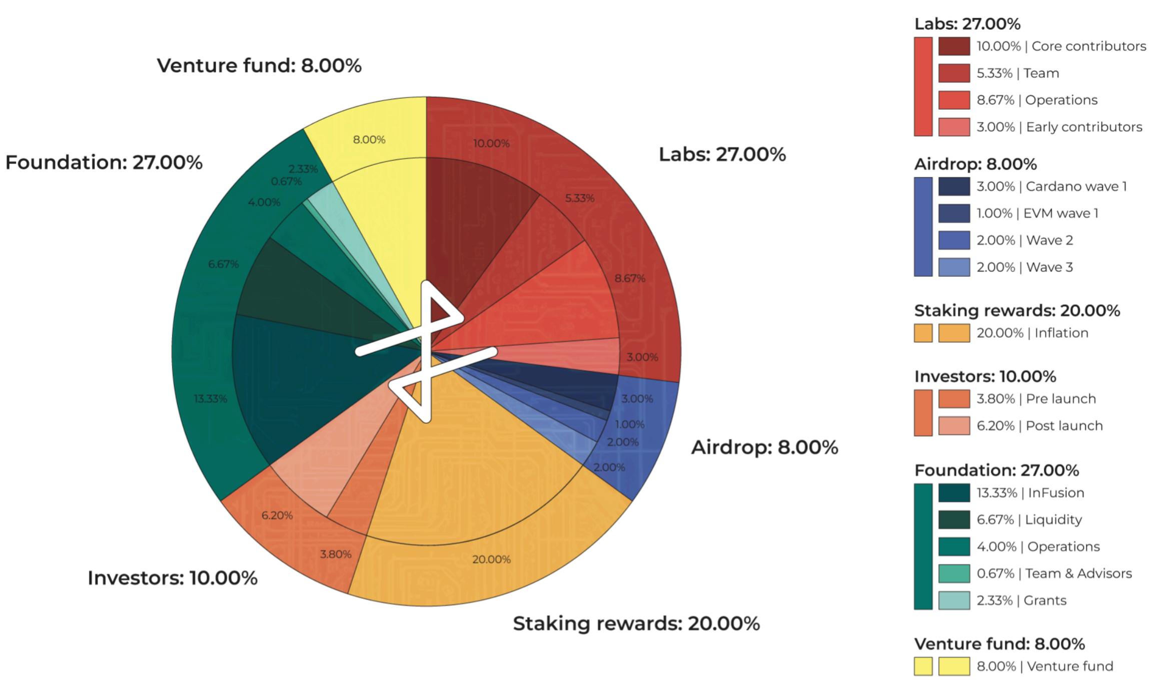
3. **Early ecosystem contributors require a stable runway** to ensure their best teams consistently perform and deliver. Development teams, SPOs, critical infra providers, and media and communication experts bootstrapping the ecosystem need to be incentivized for long-term engagement.
   Early contributors should be provided with a reasonable and vested token allocation within contracts that list specific deliverables and success metrics to mitigate this risk. If the deliverables don’t satisfy the contract requirements,

their token allocation contract would be terminated, and a mandate would be given to a different entity.

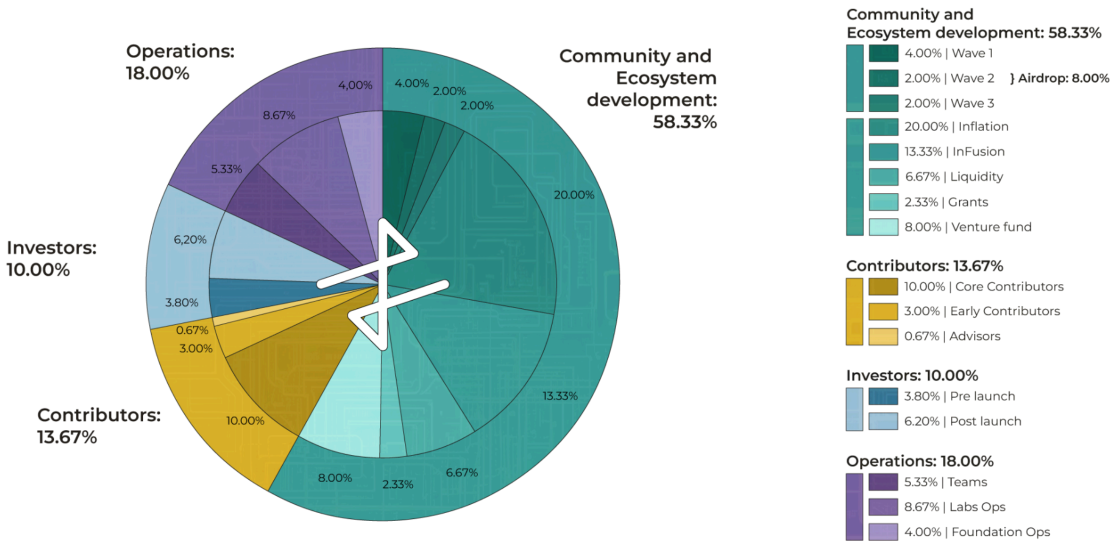
4. **Funding ideas and specific activities** is different from funding the launch of mature products. The Foundation needs to have options, such as retroactive grants, to fund the community's accomplishments after they have been successfully executed. The InFusion protocol is just one of several funding protocols designed for a specific purpose. The Foundation's clear guidelines for executing projects and getting required funding, with fully transparent processes and deliverables aligned with the technical and ecosystem roadmap, mitigate this risk.

4. TOKEN ALLOCATION

There is a fixed supply of 3,000,000,000 (**3 billion**) APEX allocated as follows:



Token distribution by purpose:



"Circulating Supply" refers to every APEX token that is not subject to a lock-up period at a given time. With the exception of the Ecosystem Incentives (airdrops, staking rewards, and grants), the majority of the supply of APEX tokens is subject to long-term lock-ups. The unlock schedule is linear across the board.

4.1 ENTITIES

4.1.1 FOUNDATION

The Apex Foundation, as the network steward enabling the genesis block, manages an important allocation of tokens. Apex Reputation System inputs will be used to support ecosystem growth.

Through the InFusion program, a portion of the tokens will be used for strategic delegations to the ecosystem across various staking pools to decentralize the network further.

Additionally, the Foundation will provide direct grants to teams/projects that contribute to ecosystem-level development in various areas.

A significant token allocation share, under the purview of the Apex Fusion Foundation, will ensure that ecosystem and community programs achieve the following:

- dApps and user applications development on the Apex Fusion protocol.
- Research and technology improvement initiatives.
- Ecosystem development and growth.
- Training and education relating to the Apex Fusion ecosystem, the Apex Fusion protocol, and related technologies and applications.
- Promotion of the Apex Fusion ecosystem, Apex Fusion protocol, and technologies and applications based on the Apex Fusion protocol.
- The development and implementation of a decentralized governance system for the ecosystem.

4.1.2 DECENTRALIZED LΔBS

Labs, which will house the Apex Fusion Core contributors, serve as the operational hub and provide essential substance for bootstrapping the network. These cross-disciplinary teams based in multiple independent entities or participating as individuals contribute to Apex Fusion in a decentralized way. To promote sustainable growth and innovation, developing blockchain protocols through collaboration among independent actors offers distinct advantages over relying solely on a single monolithic development company.

4.2 TOKEN DISTRIBUTION BY PURPOSE

4.2.1 COMMUNITY AND ECOSYSTEM

The Apex Fusion community thrives on innovation through collaboration. Self-sustainability and perpetual growth are supported through a series of mechanisms consisting of:

INFUSION FUNDING

The Foundation allocates **13.3%** of its APEX supply to qualified staking pools.

The **InFusion** program, originally inspired by the ISPO (Initial Stake Pool Offering) mechanism, is an innovative way of funding with APEX tokens. The Foundation has a significant allocation of tokens for this purpose, which functionally serve as perpetual ISPO tokens. These tokens can be delegated but not sold and are deployed in various purpose-built stake pools for on-chain development upon approval by the Foundation. By setting very high stake pool operation fees, SPOs keep rewards from block production. Pool rewards (from inflation and fees) will be paid out at the end of each epoch. They are directly correlated with the amount of tokens delegated. Recipient projects will keep and deploy those tokens to achieve their purpose. This way, project teams (stake pool owners) gradually receive funding to meet their goals. If a project is completed or put on hold, funding is diverted to the “next in queue” according to Foundation guidelines.

Recipients of the InFusion protocol are required to participate in the Fusion Reputation System, and their success impacts future eligibility.

InFusion has the following advantages over grants and traditional ISPOs:

- Funding is perpetual rather than “one-off” rounds
- Recipients get continual "trickle" funding proportional to the stake rather than lump sums
- Development progress transparently correlates to reward flow
- On-chain tracking allows community input on recipient quality
- The Foundation can pull the delegation if milestones are not met

By leveraging delegated staking rewards to fund projects, **InFusion** aligns incentives and provides sustainable funding tuned to ecosystem needs. Funding can be cut off at any time should the project fail to meet predetermined milestones.

The InFusion protocol is an innovative way to distribute funds, and it will take time to recognize its impact.

GRANTS

This category presents grants (**2.33%** of the total supply) that will be awarded through an application process that assesses factors like technical merit, team capabilities, projected impact, and community benefit. Larger grants may vest across milestones, with partial upfront funding and the remainder unlocking on delivery. Funding via InFusion will be a preferred method for incentivizing ecosystem growth.

VENTURE FUND

The Apex Fusion Venture Fund, allocated **8%** of the total APEX token supply, is an integral component of promoting innovation within the blockchain sphere. This fund will be expressly designed to invest in and cultivate promising startups and innovative projects that align with the Apex Fusion vision, contributing significantly to the ecosystem.

Key Objectives of the Venture Fund:

- **Project Identification and Support:** The fund will be committed to discovering high-potential, early-stage projects that can effectively utilize the Apex Fusion infrastructure. By providing financial support, technical and non-technical resources, and strategic guidance, the fund will aim to expedite the development and integration of these projects into the Apex Fusion ecosystem.

- **Ecosystem Synergy and Growth:** Projects receiving funding will be expected to enhance the Apex Fusion ecosystem's overall value proposition. For illustrative purposes, this could include areas like decentralized finance (DeFi), non-fungible tokens (NFTs), and enterprise blockchain solutions, **all** seamlessly interacting with the Apex Fusion multi-chain architecture.

- **Long-term Strategic Investments:** Emphasizing sustainable growth, the fund's strategy will be centered on long-term investments rather than short-term gains, aligning with the broader objectives of the Apex Fusion ecosystem.

LIQUIDITY

Ensuring liquidity is a crucial aspect of Apex Fusion’s ecosystem sustainability. APEX tokens reside on several blockchain networks with different block finalities. Networks are connected with various bridge implementations. Ensuring a smooth transition between the networks requires certain amounts of liquid tokens. This is why **6.67%** of the total token supply is being set aside so that token liquidity can be achieved and certain network functionalities guaranteed. APEX token liquidity further enables seamless and efficient transactions, cross-chain activities, and the integration of diverse network functionalities. Without a liquid token, the network's potential remains limited, restricting its ability to deliver comprehensive interoperability benefits and frictionless UX.

4.2.2 STAKING REWARDS

Staking Reward allocation is **20%** of the total supply. The APEX token operates on a structured rewards schedule, culminating in a terminal token count of 3 billion. The unique characteristic of this allocation is its half-life trait, implying that it will never be entirely disbursed.

4.2.3 AIRDROPS

Out of the total supply of 3B APEX, 240M (**8%**) is allocated to an airdrop for holders of Cardano as well as EVM projects whose tech is utilized for Nexus or future Fusion chains. This is a community onboarding effort across the existing crypto ecosystem and a way to say ‘thank you’ to the ecosystems whose technology and years are hard work we are building upon. The airdrop strategy and methodology aim to incentivize activity. Details of the airdrop terms and final allocations will be announced prior to the event.

The airdrop is planned to be deployed in three parts, using a model where users must initiate an action to receive the drop. In short, the more activity, the higher the likelihood of token allocations during each airdrop wave. Each wave of the airdrop will span several months after the project's launch, with all unclaimed APEX allocated to the last round of distribution. Those APEX token holders who sell greater than 10% of their tokens in a previous round may not be eligible for the next round.

The Airdrop strategy aims to acquire as many active users as possible, minimize user acquisition costs, drive vested participation in protocols within the network, establish market forces to drive ecosystem value and maximize token distribution to retail while minimizing the exposure to inactive users.

To prevent the inclusion of 'dust' and cap distribution to large wallets, eligibility criteria and stringent filtering of the source chain snapshots will be applied. The snapshot will be taken at a specific block, addresses below a certain value considered as 'dust' will be removed, and balances will be aggregated by the stake key.

Careful analysis and planning have been applied to the airdrop strategy, and it is expected to grow the project's user base, increase network activity, and provide a fair distribution of tokens.

INITIAL ΔIRDROP

The initial airdrop occurs after the mainnet launch, with two subsequent airdrops planned. The first airdrop consists of 120,000,000 APEX tokens. Exact timestamps for snapshots for each airdrop will be published after the snapshot has been executed to disincentivize gaming of the process and provide full transparency for the allocation.

The initial 120,000,000 token airdrop will be distributed to users on the Cardano, EVM, and potentially future Fusion chains, as these chains are technologically related to Apex Fusion's development and ecosystem. This initial airdrop distribution will be based on the eligibility criteria and the activity of users on those chains.

It is important to note that airdrop participation is based on users' eligibility and the active agreement to participate in the airdrop signed through a user's wallet. Once a user is determined eligible for any APEX token airdrops, they must confirm through a simple on-chain transaction that they agree and wish to participate in the airdrop. If confirmation is not done within a specific timeframe, the user will lose rights to the airdrop, and their allocation will fall into the subsequent airdrop bucket. Legal constraints will be taken into account when implementing airdrop participation within various jurisdictions. Details will be published before the Airdrop event.

4.2.4 CONTRIBUTORS

The **13.67%** token allocation is reserved for the contributors, consisting of Core Contributors, Early Contributors, and other stakeholders and participants who helped build the project. Apex Fusion has had multiple individuals and entities contributing from the beginning. The initial design always assumed and cross-disciplinary approach and multiple entities doing core development in a decentralized way. The 13.67% token allocation reserved for contributors is divided into the following categories:

1. **Core Contributors:** The project will allocate **10%** to its Core contributors. The tokens will vest linearly over 3 years, ensuring long-term commitment.

2. **Early Contributors: 3%** of the token allocation is dedicated to early contributors who provided invaluable knowledge, expertise, and guidance to the project. Early Contributors include advisors, industry veterans, technical experts, critical infrastructure providers, and strategic business advisors who contributed to the project's decisions and roadmaps **before mainnet**. Like team allocation, Early Contributors tokens will vest linearly over a 3-year period. This arrangement ensures that contributors stay motivated to provide valuable advice and contribute to the project's long-term growth and success

3. The **Foundation** allocation for advisors and team members will be **0.67%**.

4.2.5 OPERATIONS

18% will be allocated to operations and divided into the following categories:

1. **Teams: 5.33%** is assigned to the team members who are the primary architects and engineers of the project. This allocation serves a dual purpose. First, it compensates the team for their hard work, skill, and dedication to the

project. Second, it financially aligns the team members with the project's success. The allocation for the teams will vest linearly over a 3-year period with no cliff to align with the long-term vision, sustained focus, and involvement in Apex Fusion and its success.

2. **Labs Operations: 8.67%** includes bootstrapping for L2 chains and daily operating and maintenance costs, such as infrastructure, tooling, and support for all critical infrastructure entities.

3. **Foundation Operations:** A significant portion of APEX tokens (**4%**) will be allocated to support ecosystem growth through the Foundation using the Apex Reputation System as inputs. Through this mechanism, the Foundation will provide direct grants to teams/projects that contribute to ecosystem-level development in various areas, including:

- Apex Fusion protocol development and deployment.
- dApps and user applications development on the Apex Fusion protocol.
- Research and technology improvement initiatives.
- Ecosystem development and growth.
- Training and education relating to the Apex Fusion ecosystem, the Apex Fusion protocol, and related technologies and applications.
- Promotion of the Apex Fusion ecosystem, Apex Fusion protocol, and technologies and applications based on the Apex Fusion protocol.
- The development and implementation of a decentralized governance system for the ecosystem.

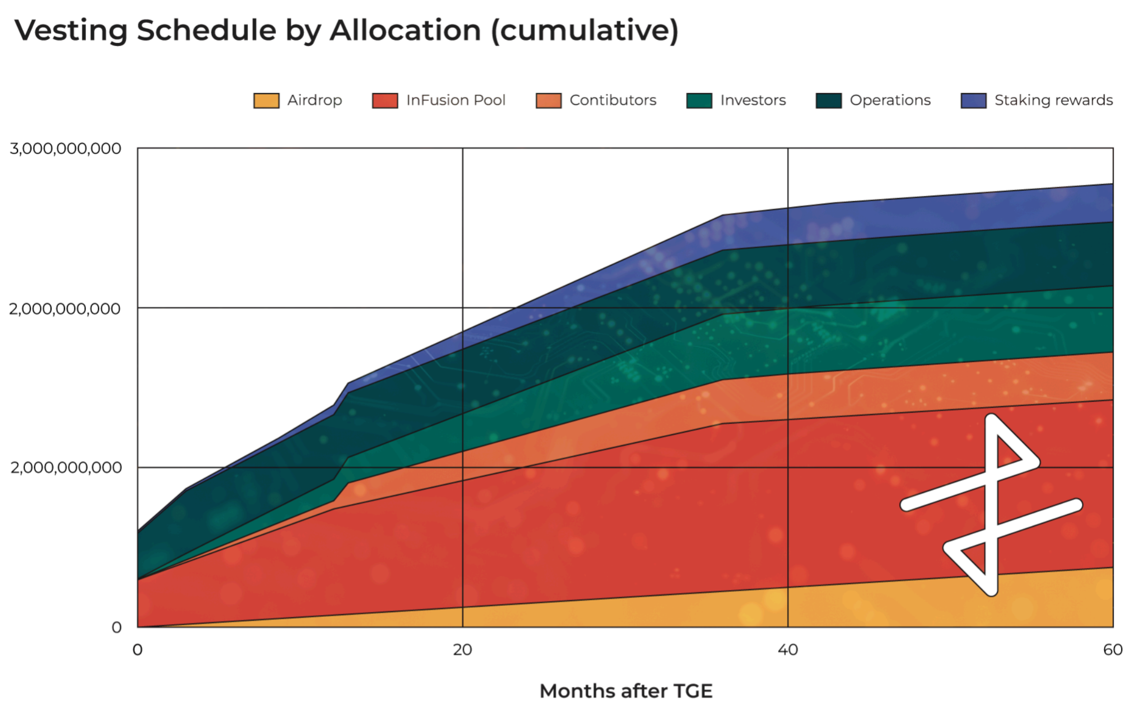
These funds will be delegated to validators and generate rewards that will be primarily used for the above-mentioned purposes. The Foundation will prioritize liquidating earned rewards for their operations and minimize the spending of initially allocated funds.

4.2.6 INVESTORS

The total investor allocation is **10%**. The project will be initially funded through a pre-launch round of **3.8%** of the token supply. The remaining share is planned to be used to fund the project from outside strategic investors, primarily post-launch. Please note that percentages between rounds may be adjusted based on market conditions while the 10% max allocation to investors will be maintained.

4.3 UNLOCK SCHEDULE

Various APEX token allocations will be subject to lock-up schedules to encourage long-term alignment. Unlocked portions include allotments to team members, advisors, and investors in keeping with industry standards. lock-up restricts access to tokens over time through gradual linear release. This prevents short-term thinking and sudden impacts on circulating supply.



The APEX lock-up schedule consists of:

- Pre-seed investors will have a one-year linear distribution with no cliff. Seed Investors will have a three-year linear distribution with no cliff, and the team and other stakeholders will have a three-year linear unlock period.
- Linear token release over the unlock period to provide reasonable liquidity access without volatility risk.
- No accelerated unlock release if an agreement ends prematurely for extenuating reasons.

This approach balances incentive alignment with reasonable liquidity, encouraging stakeholders to focus on Apex Fusion's long-term growth and adoption.

5. FEES AND MECHANICS

5.1 TRANSACTIONS & GAS FEES

Different gas fee price ranges will be set up for the three components of the Apex Fusion network (L1, L2s, and Reactor bridge).

The L1 Prime chain primarily serves as a decentralized consensus security layer with liquid staking. To enhance the security of the chain, the fees on the Prime chain are higher. However, that does not significantly affect the ecosystem economics, given that there are no complex smart contracts and the chain mainly performs simple transactions exclusively for APEX tokens and delegation actions. Conversely, fees on the L2 chains are intended to be as low as possible, focusing more on speed and scalability. Transactions on L2 will perform the execution of smart contracts and all types of compatible token transfers.

Apex Fusion’s L2s will have very fast block times where gas fees can be adjusted based on market conditions as defined within the L2’s consensus and mempool protocols. Fees will be in line with the industry standards for L2s.

The gas fee computation and pricing mechanism for the Prime chain is directly related to the transaction size formula. The Prime chain has static fees that do not change as network activity and congestion rises, unlike chains such as Ethereum. On L2 chains, gas fees are dynamic.

Prime chain uses a transaction fee system that covers the processing and long-term storage costs of transactions. This system is designed to prevent economic attacks and ensure the network's security and sustainability.

As an example, on the Prime chain, the formula for calculating minimal fees for a transaction is:

$$\textbf{transaction (tx)} = a * \text{size}(tx) + b$$

where size(tx) is the transaction size in bytes.

Apex Fusion Prime Chain fee structure provides multiple benefits to the ecosystem:

1. *Structural Simplicity*: Prime’s fee structure is simple, based on preset parameters that make it intuitive and easy to understand, allowing users to estimate costs accurately.
2. *Fee Volatility Mitigation*: the gas fee structure, compared to a chain like Ethereum, deters potential exponential increases in fees due to network activity, keeping fees stable and predictable given the predetermined parameters.
3. *Fair Distribution*: since fees on Prime go directly to block producers, adopting a similar fee distribution mechanism promotes decentralization and ensures fees are shared among participants contributing to network security and operation.

4. *Attack Prevention*: Prime's fee structure compensates for transaction processing and storage costs and discourages economic attacks. By ensuring that fees cover the expenses, it becomes less attractive for malicious actors to exploit the system for economic gain. Also, a higher static fee structure on the Prime chain increases security significantly.

The purpose of the Prime chain is not to provide the platform's advanced features, such as token issuance and smart contracts. Fusion's L2 chains provide these features. Therefore, the values for a' and b' on Prime are set at a higher level for transactions and at an extremely high level for token issuance and smart contracts. Vector, Fusion's L2, which uses the same technology as Prime, requires significantly lower fees.

5.3 STAKING FUNDAMENTALS

Staking is essential to securing the network. Holders of APEX tokens can run validation nodes or delegate their stake to node operators to earn staking rewards. By delegating their APEX tokens, individuals help regulate and validate transactions on the blockchain, ensuring its integrity with a flexible annual percentage yield (APY) that will fluctuate over time.

Unlike some other protocols, Apex Fusion has a limited total token supply of 3 billion APEX. This means staking rewards do not come from inflationary token issuance. Instead, rewards are derived from the total supply allocated specifically for staking incentives.

Ouroboros consensus mechanism ensures that delegated funds are not locked and they are always liquid and accessible. Rewards gained after each epoch are immediately and automatically staked for the next epoch. Users have frictionless experience in the delegation process:

- No need to claim the rewards and stake them manually (automatic rewards claiming and re-staking).
- New funds received at the address are immediately staked.

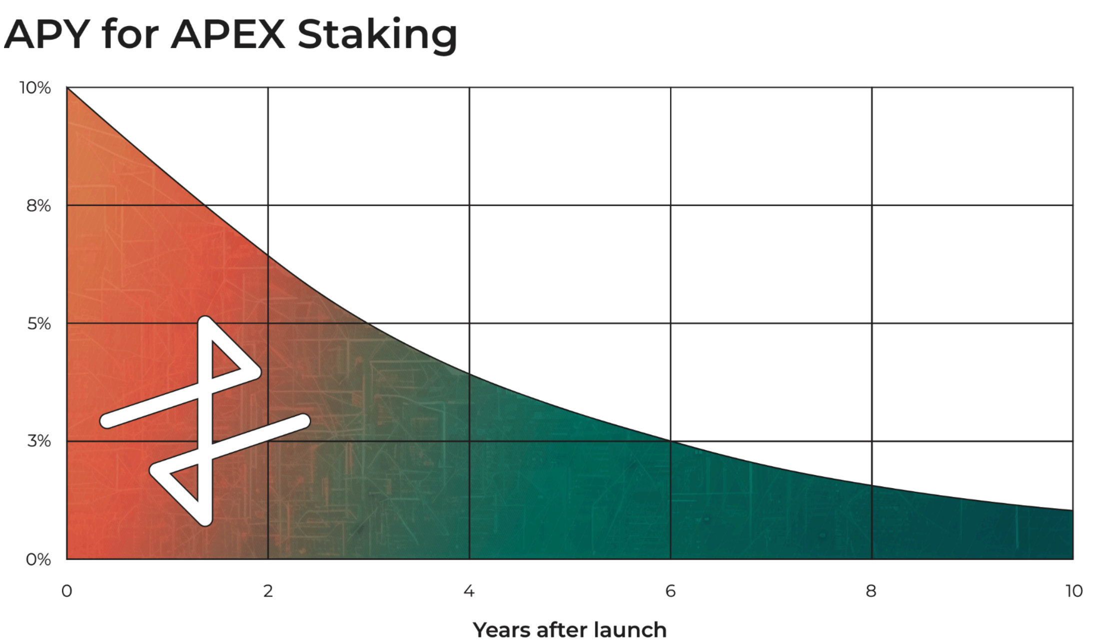
- Funds are accessible and liquid all the time (un-staking is not needed).
- Staking is embedded within the protocol. There is no smart contract risk or need for intermediary tokens (such as LDO).
- Staking rewards are minted on a special type of account within the UTxO system (a combination of UTxO and Account-based model) that doesn't grow the global UTxO set.

As the issuer of APEX tokens, the Foundation has a major allocation of APEX tokens that will be used for strategic delegations within the ecosystem. The Apex Foundation plans to delegate a portion of its token supply across various staking pools to decentralize the network further.

The combination of community pools and Foundation delegation fosters decentralization and supports ecosystem development. These pools can be community-driven or created for specific purposes aligned with the ecosystem's goals. In the following months, as governance mechanisms are being established, delegation from Labs will be gradually diverted to wider ecosystem stakeholders that seek funding via the InFusion protocol (details of the entire process will be provided within InFusion specification).

5.4 INITIAL ΔPY & STAKING LIMITS

Inflation for APEX staking rewards will initially start from 10% at launch, with a half-life of 3 years, slowly decreasing after each 5-day epoch. Rewards will only be issued on the Prime chain. Projected APY is theoretical and depends on many parameters, such as the percentage of tokens staked.



Given the half-life of 3 years, the following formula could be applied to calculate APY for APEX staking in a given timeframe after launch:

APY_t = InitialAPY * (0.5)^(t/Half_Life)

Note that this formula does not give the perfect APY as it is also dependent on other factors within the network and ecosystem (such as choice of the stake pool, their fee, and number of blocks minted within the epoch) where the InitialAPY is 10%, and the Half_Life is of 3 years. Therefore, based on this initial APY and a half-life of 3 years, with a decreasing APY after each 5-day epoch, the APY after 6 months should be 9.54%, after 1 year 9.25%, after 2 years 7.22% and after 3 years 5%.

Additionally, Apex Fusion will have limits for certain entities to prevent centralization. The desired number of stake pools (k) will be set to 500 initially.

- The goal is to increase the k parameter to 1000
- Saturation with K=500 and 1B supply is similar to K=1000 and 2B supply

5.5 PROJECTED STAKING RATIO

To better assess potential staking projections, the current staking ratio for the most prominent chains is presented.

Staking ratio across chains	
Chain	***Staked Tokens***
Binance	15%
Ethereum	22%
Polygon	39%
Polkadot	48%
Near	53%
Cardano	63%
Cosmos	67%
Solana	71%
Sui	81%
Aptos	85%

As the table with data from 2023 Q3 shows, staking ratios vary dramatically across chains, ranging anywhere from 19% all the way to 85%. Staking projections could be made according to a combination of two factors for APEX: the association with Cardano and a look into nascent proof of stake chains.

Cardano has a staking ratio of around 62%, whereas some of the newer chains on the list, Sui and Aptos, range between 81% and 85%. It is also relevant to look at the newer chains since attractiveness, given higher staking rewards, should be higher on more nascent chains, as exemplified by the staking ratios.

We believe the staking ratio will start off high (65%+) and stay high because of the incentive structures presented.

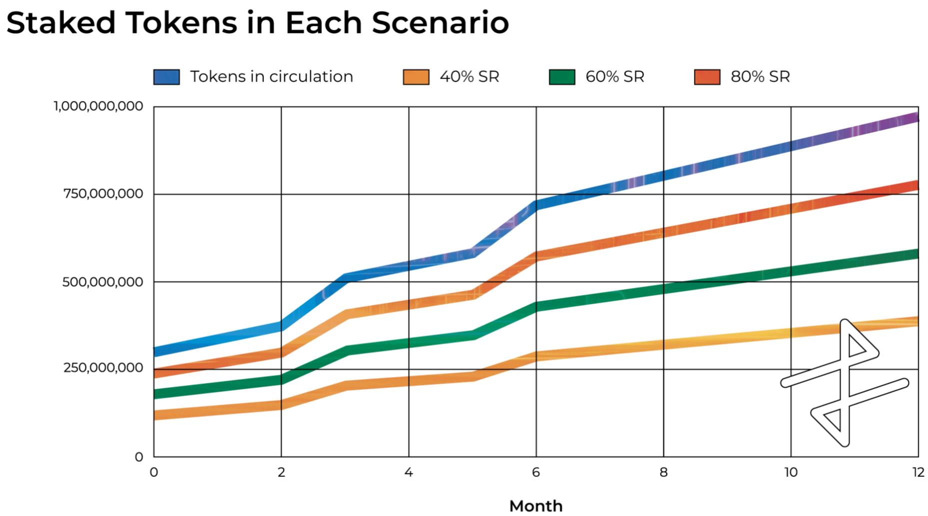
5.6 INITIAL STAKING PROJECTIONS

Three scenarios of staking rewards are presented based on three different scenarios of staking ratios. The Foundation will delegate the majority of its tokens from the start. Therefore, the lower bound is easily set.

The first scenario is a conservative staking ratio of 40%, which is the pessimistic view given the fact it is a new chain with high staking rewards and much lower than comparative established chains with lower staking rewards.

The second scenario is a realistic staking ratio of 60%, which follows the average of some of the most comparable chains, primarily Cardano.

The third scenario is an optimistic staking ratio of 80%, which is based on the most nascent chain comparables, namely Sui and Aptos. Based on these ratios, scenarios were drawn out for the launch of Apex and its staking landscape based on the initial airdrops.



According to the 3 proposed staking scenarios, which are based on various levels of staking ratios with respect to industry standards and the attractiveness of nascent chains, it is possible to visualize the amount of staked tokens in the first year according to the circulating supply in year 1 for each month.

6. DISCLΔIMER

The present tokenomics document and/or any other accompanying documentation ("**Document**”) only provide educational material about the tokenomics of the Apex Fusion network and the APEX token. Please note that the Apex Fusion network and the APEX token are under active development and are subject to change. The APEX Fusion Foundation may change this Document at any time at its sole discretion without notice.

The information contained in this document is provided for informational purposes only and there is no guarantee for the completeness of the content. This document does not constitute an offer to sell or a solicitation of an offer to purchase any APEX tokens and is not an offering, advertisement, solicitation, confirmation, statement, or any financial promotion that can be construed as an invitation or inducement to engage in any investment activity or similar. All numbers and forward-looking statements mentioned within this document, as well as any accompanying documentation, reflect mere estimations/indications.

The Apex Foundation makes no representations, warranties, or covenants with respect to the Apex Fusion network and the APEX token as to their technical properties and/or characteristics or performance or their actual or potential usefulness or suitability for any particular purpose.

This disclaimer, this Document as well as any accompanying documentation, shall be governed by and construed, and interpreted in accordance with the substantive laws of Switzerland, excluding the Swiss conflict of law rules. The United Nations Convention for the International Sales of Goods is excluded.

Any dispute related to or arising out of the information provided within the Document, as well as any accompanying documentation, shall be submitted to the exclusive jurisdiction of the competent courts of the city of Zug, Switzerland, with the exclusion of any other jurisdiction or arbitration.