



Ink FINANCE

Litepaper 1.0

A Modular Approach to Financial DAO
Construction and Governance V1.0

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Background

The DeFi protocol economy is primarily an asset-backed financing regime with over collateralization (OC) as its main methodology, which is ultimately bottlenecked by the immediately available assets on the local blockchain. Cross-chain technology, which aspires to making all heterogeneous assets from all blockchains accessible from any local blockchain, can loosen the bottleneck to a certain extent, but it alone can do very little to cross any assets that are structurally illiquid at their origination networks, which apparently include the much wider range of assets that are not originated from public blockchains. If the DeFi movement is to gain wider legitimacy, financial products introduced via credit mediation must have their presence in DeFi, hence the urgent mandate of financially focused DAOs that are rigorously constructed, flexibly operated, and professionally equipped to perform finance.

However, the hastily and sloppily designed DAOs of the past pose an existential threat to the future role of DAOs in decentralized digital finance. Fraught with plutocratic governance schemes, Sybil-infested incentive structures, and unaudited smart contract logic, past DAO failures have caused hundreds of millions in stolen funds. Integrity issues aside, the lack of comprehensive financial engineering capability further limits the potential and scalability of such DAOs, forcing them to become fractured entities only able to do limited business by practical means.

INK Finance will establish a gold standard of financial DAO construction and operation that will serve the best decentralized organizations, including emerging venture capital and crypto managers and syndicate groups, Web3 protocols and applications, and even traditional institutions such as art auction houses, Fortune 500 corporations, and mainstream financial firms. With its highly customizable modules of DAO configuration and powerful financial management tools, INK Finance will continuously iterate with technological, financial, and regulatory bodies to properly serve a diverse clientele who strives to adapt and thrive in the Web3 era.

1. INK's Key Objectives

1.1 Modulated DAO Setup and Financial Product Factory

INK's out-of-the-box configuration modules are designed for aspiring financial DAOs to customize their operations and the financial products they offer. The company's long-term goal is to provide a no-code interface for organizations to seamlessly set up, operate, and iterate, which will allow them to effectively adopt the explosive growth of assets generated by new ecosystems, especially in a very dynamic regulatory environment.

1.2 Sybil-Resistant Governance and Cross-chain Reputations

INK Finance aims to be a multi-chain facility that allows any DAO to set itself up once and do business everywhere, with high capital efficiency and low operation overhead. This means that any DAO will be able to establish its cross-chain financial reputation with transparency, competence, and fairness.

The validity of each DAO member in a decentralized and cross-chain setting lies at the core of its reputation. INK Finance tackles the challenge of identity verification and Sybil resistance by utilizing the decentralized facilities offered by Aikon and Humanode, respectively.

Aikon's decentralized identity platform enables secure login and control over the users' data while keeping it private. It can be employed to maintain the connection between a legal identity and its decentralized role across all deployed blockchains.

To ensure that a critical member of an INK DAO who is signing an audit or voting on resolutions is the same person who created the account, INK utilizes a cryptobiometric solution developed by Humanode. It allows biometric data to stay private both during computing and storage, sending only ZKP (Zero Knowledge Proofs) to decentralized identity solutions like Aikon to prove that it's not a hacker trying to use an account. In addition, the Humanode biometric protocol utilizes liveness detection to ensure that any critical role in an INK DAO is assigned to a real human and not another fake account.

1.3 Access to Legitimate Fundraising Platforms

Whether it be emerging venture capital managers or syndicates, DAO-governed Web3 protocols, or art auction houses, DAOs have an immediate need to fundraise from investors around the world (including US accredited investors) and subsequently distribute those funds through smart contracts built into the DAO. INK Finance aims to meet this need by integrating with fundraising platforms, including but not limited to companies such as Republic Crypto.

In the future, as the popularity of Regulation Crowdfunding (Reg CF) grows, INK Finance will explore integrations with registered crowdfunding portals in order to host registered token offerings.

The INK Modules and Use Cases

1. The INK Modules

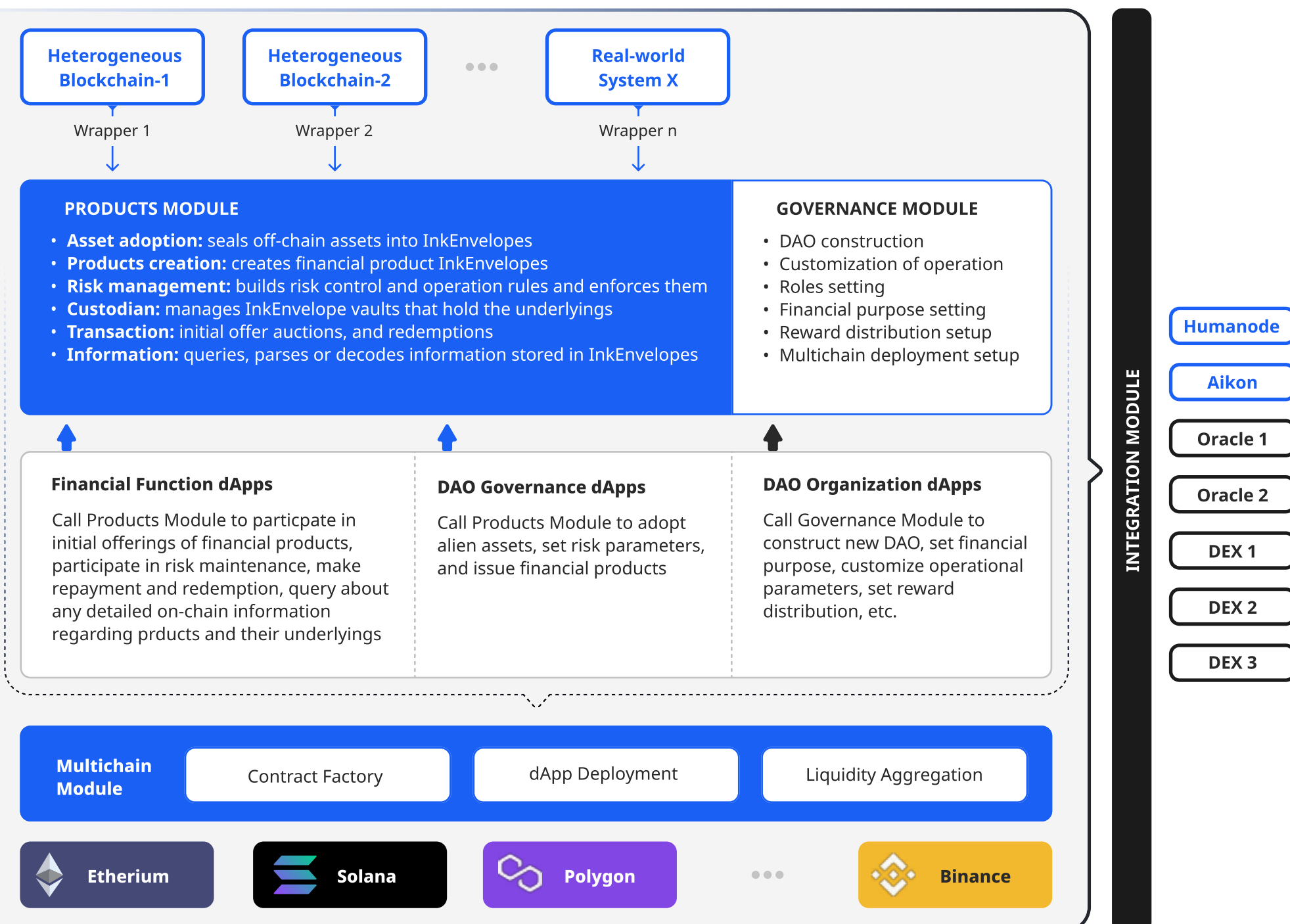
The INK Finance workspace consists of four major modules:



These modules are built into decentralized apps (dApps), including those developed by the INK Finance team. This makes it easy for users (DAO members, issuers, and investors) to choose the features and functions they need. The following diagram illustrates the top-level architecture:

Architecture of Ink Finance Modules

Scheme 1



2. INK Products Module

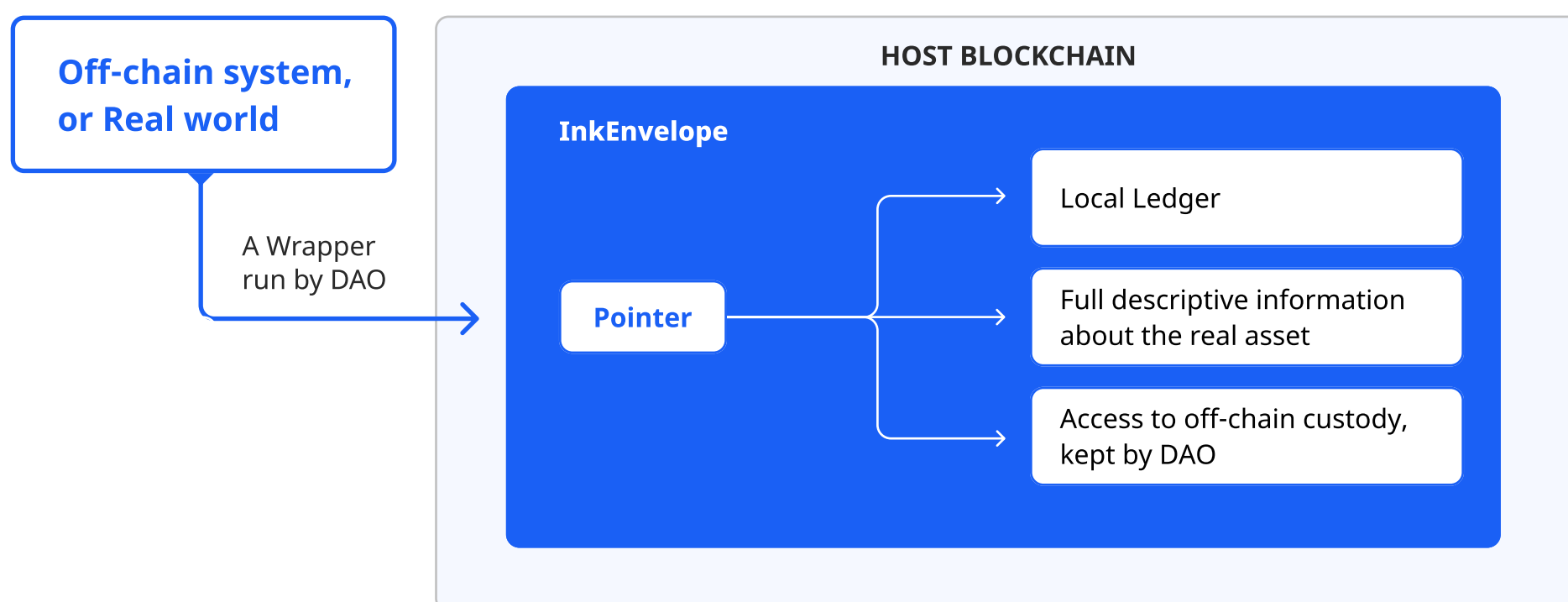
The key to INK's customizability and flexibility is its ability to wrap any bundle of assets or financial products, and any information regarding them, into one token. This token can then be used as collateral or as a component of a fund portfolio, gaining the benefit of uniformity and liquidity on any host blockchain.

In the case of physical assets which contain information such as insurance, appraisers, deeds, and so on, the INK Products Module can wrap such information into one non-fungible token (NFT), which has a totally fungible representation so that it can be handled by mainstream wallets and trading facilities.

The key construct that makes this abstraction possible is the InkEnvelope, which removes the complexity of bundling any variety of assets, while preserving their descriptive information and adding a novel layer of programmability that seamlessly plugs into the world of DeFi applications. Below is the blueprint of InkEnvelope's information composition:

Illustration of InkEnvelope Blueprint

Scheme 2



The INK Products Module allows DAOs to make customizations around the InkEnvelope, such as:

- Wrap the results of an INK DAO's off-chain asset adoption into InkEnvelopes, the uniform on-chain digital assets.
- Create financial products that are collateralized (or backed) by the Enveloped assets, or that use InkEnvelopes to hold such assets as their portfolio components. These created financial products can then be made available to investors through "on-the-go" auctions or fundraising, such as legit crowdfunding
- Redeem financial products with on-chain settlement and clearing
- Set risk control triggers and other operation triggers for the financial products
- Query and parse information regarding the assets or the financial products, i.e., peek into the InkEnvelopes

With this Module, the complicated features of bespoke assets and financial products are made easy to process and understand. INK doesn't just set up a DAO—it also gives the DAO all the tools to do its financial job. The following are several use cases that demonstrate the capabilities of the INK Products Module.

2.1 A Singleton Product of Equity, Property, or Rights

The simplest security in the real world is an equity stock, yet the complexity of issuing such a simple instrument is greatly underappreciated.

While minting a fungible token on a blockchain to represent ownership of an equity or property is intuitive, it lacks tangible connection to what is being represented. It is critical for serious investment decisions on blockchains to be based on the real meaning carried by digitally transferrable tokens.

INK Finance solves this problem by encompassing such critical information in a high-level construct, the InkEnvelope, and providing tools to handle, process, and interpret these envelopes. A singleton product (or security) can now have the necessary information associated with it, provided that it is issued with tools from INK's Products Module.

The following illustration describes how a singleton equity-like product carrying off-chain information can be issued by an INK DAO.

2.2 Fixed Income Products with Option-like Risk Control

The unique risk management tool offered by the INK Products Module is likely the most innovative risk management scheme in the DeFi domain.

Every original pledger is stressed when the price of their collateral drops sharply, and the tendency is to default on the obligation of making up the shortfall. The goal of INK's shortfall auction mechanism, part of the Products Module, is to encourage others to fulfill the obligation with a significant potential reward, by activating a collateral shortfall auction before triggering the liquidation process. This avoids delinquency instead of forcing one, which liquidations tend to do.

The winner of such auctions shall deposit enough collateral to make up the shortfall to restore the original pledge ratio. The winner is then granted the right of control of the collateral vault. When the collateral price recovers enough to make a risk-free profit, the winner can buy back the outstanding debt with interest and take possession of the original collateral plus their own shortfall maintenance collateral.

This auction is similar to the bidding of a call option on the collateral, except in INK's mechanism the premium is not spent when the option is exercised because the collateral vault includes it.

In addition to this dynamic credit enhancement scheme, INK also introduces a game-like tranching mechanism to provide market-driven risk and reward distribution at the initial placement auction. Any investor can choose to take a senior or junior position in the debt financing deal, and INK's formula automatically adjusts the risk and reward of the two different positions as they are being formed by different investors, allowing them to express their different levels of risk tolerance.

The following diagram illustrates how to use the INK Products Module to issue a collateralized debt product (a note or bond) with two tranches (token A and B):

2.3 Asset Management Products

Asset management requires raising proceeds first and then deploying them toward investment purchases. In this class of applications, INK's Unified Custodian Vault (UCV) must first be used to hold investors' deposits, and then used to hold the targeted components of the investment portfolio. The INK Products Module guarantees that any outflow of proceeds is for strictly purposed acquisitions only. It also guarantees that the final liquidation proceeds are sent back to the vault for redemption distribution.

2.3.1 Example 1 - A Secondary Market Focused Fund

An ETF, or Exchange Traded Fund, is a passively managed fund, which is invested in a portfolio of multiple products that are chosen according to a preset formula of specific member composition. Note that shares of such funds can be listed and traded on an exchange (hence an ETF). This is assured by InkEnvelope's abstraction power—any financial product can be detached from the INK domain as a fungible token, making it immediately tradable on any locally available DEX.

With the INK Products Module, an asset management DAO can specify composition formulas with eligible members and execution rules (such as which DEX to use).

The ETF constructor supports two redemption modes: liquidation at maturity and instantaneous swap. The latter allows an investor of a fund token to swap it back to the vault in exchange for component tokens, enabling arbitrage trading.

The convenience of such modulated construction of financial products is apparent, particularly for small-to-mid sized DAOs seeking to quickly launch their fund operations to service, and hopefully, build up their fellow investors.

2.3.2 Example 2 - A Private Holding Fund

A private fund can hold the ownership of anything from the off-chain world that is neither in an immediately tradable format nor in an established marketplace. It is by nature discretionarily managed, and the integrity of the operation is key. The INK Products Module attaches rules regarding outflowing proceeds, to make sure they strictly go through the managing DAO's governance structures.

When used properly, such a fund format can become a SPAC-like (Special Purpose Acquisition Company) acquisition vehicle, a powerful "raise first and build up later" scheme that can target collectable arts, film production rights, or metaverse assets.

InkEnvelope's abstraction power enables complicated fund management details to be fully encompassed within the Envelope structure, making such funds available to regulated crowdfunding institutions or regulated on-chain auction houses.

The following illustration (Scheme 5) shows a managed fund intended to acquire and hold different real-world artworks after the proceeds are raised

3. INK Governance Module

The INK Governance Module allows for out-of-the box construction and customization of tailored financial DAOs. Since the functional objective of INK is the on-chain issuance, risk management, and clearing for Non-Fungible Financial Instruments, the primary focus of the INK DAO framework is on unique building blocks dedicated to regulating financial usage, integrity, and capital efficiency. Other tools in the Governance Module that are universal for all DAOs (such as management of roles, seat auctions, and vote counts) are of secondary importance.

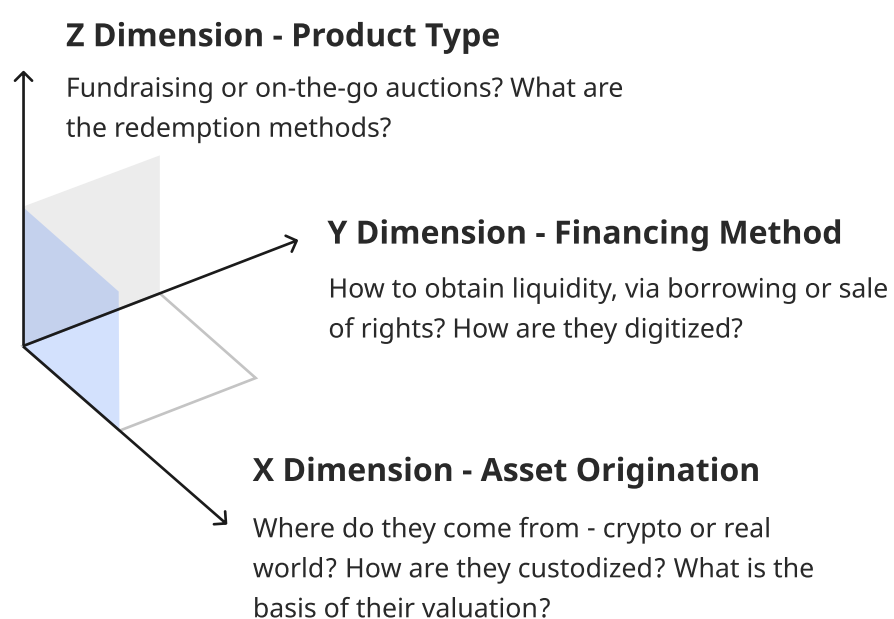
All smart contracts in this module are dynamically generated, automatically configured, and ready to be customized from a master factory on the mainnet, with the goal of getting a financially purposed DAO up and running fast.

3.1. INK's Top-down DAO Building Blocks

When a wide range of bespoke assets and financial products are involved, common sense tells us that no generic organization or group of people can govern them well. Any attempt to organize specially focused financial DAOs under a generic framework is likely to expose itself to abuse and misuse. INK doesn't attempt to be a "generic" DAO builder—it only aims at building financial DAOs, and building them well.

INK devised a top-down construction approach. An INK DAO starts with making top level choices, the non-votable properties, in a three-dimensional matrix. This will determine the next level of votable properties, which will then further substantiate more votable properties at the next level down, which corresponds to parameters of an issued financial product (such as a debt or a fund). As the granularity gets finer, the items needing a DAO's decision get better defined, guiding the factory to produce a suite of precise smart contracts that form the DAO's governance space. This scheme achieves robustness and flexibility at the same time.

The three dimensions underpinning an INK DAO are:



INK's out-of-the-box building process can eventually give DAO users a "no code" experience. As they interact with the builder interface that guides them through the granularities of their operation, smart contracts derived from the templates in the Governance Module and Products Module, with customizable parameters, will be produced. Some of these contracts specify the rules regarding proposing and voting, while others specify the necessary properties and risk management triggers of the financial products to be issued. These rules will be enforced throughout the governance and operations of the DAO, exactly according to their stated financial goals and purposes.

3.2 On-Chain Reputation

With its technical capabilities, financial functionalities, and economical framework, INK aims to be a credit discovery platform. Its primary goal is to promote transparency, competence, and fairness in financial governance.

However, a framework entirely built upon incentives and penalties is inadequate in addressing integrity, particularly in crypto DeFi. Fortunately, mature and feasible external solutions are available that can be integrated into INK's technology stack to tackle the issues of integrity. It is critical to note that the choice of using external facilities is vital to the integrity of INK itself!

The first issue is identity verification. The solution is to combine legal identity with biometric identity, which not only guarantees one-person-one-role on a crypto operating platform, but also instills legal recourse if structured right. Naturally, the external systems utilized must implement encryption schemes to keep sensitive data private but also allow sharing only when needed. All critical governance roles of an INK DAO can have uniquely minted tokens issued by the external integrity ensuring network(s). This is an explicit choice made by the DAO at its construction time to show its commitment to integrity. INK Finance's top-down buildup process may enforce such commitment for certain applications when the process determines that the financial purpose of the prospective DAO demands it.

The second major issue regarding integrity has to do with off-chain custody and clearing. A ZKP-based bridge of the host blockchain can be developed to achieve privacy-protected asset verification and custody, provided that the target blockchain supports programmability. This solution also works well if the target assets originate from an enterprise blockchain or corporate clouds, which requires access permission for information that should be proved to exist but mustn't be revealed. The InkEnvelope blueprint includes a placeholder for storing and accessing sensitive inter-operative information.

3.3 Housekeeping - The Roles and Seats

It must be noted that all the below key governance roles defined by INK Governance Module must go through the above mentioned integrity ensuring process. These key roles are:

Proposers

As per the pre-set financial goal, Proposers can propose on:

1. The eligibility of assets to be financed.
2. The whitelist of financing currencies (the raised currencies) on the host blockchain.
3. The oracle machine used to price, or update the status of, the assets.
4. DEX on a host blockchain.

If the DAO wishes to make certain proposals open for the public to make, it can require public proposers to make a small pledge of QUILL Tokens. If a proposal is determined as "Invalid" subsequently in the voting process, this pledge will be deducted and destroyed, which serves to prevent attacks via frivolous proposals. A designated Proposer within a DAO needs to pledge a more substantial amount of QUILL Tokens to make proposals, since they are expected to carry more responsibility than the general public.

Voters

The pre-set financial purpose determines the qualification of Voters. In crypto assets governance, INK encourages any DAO to involve the public in its governance process. The Governance Module allows for classes of different voters, with the lower-ranked ones being the general public who hold referendums. If this option is made, INK sets the maximum number of QUILL Tokens that a public voter must pledge, to reflect the democratized nature of this mechanism. A public referendum counts vote effectiveness by stake.

Votes cast by voters holding DAO seats can have a higher aggregated weight than the referendum resolution. This weight can be customized by the DAO.

Timeliness of the voting process is customizable, but the DAO must also set a time limit after which absentees will lose their seats.

Auditors

Auditors perform the following tasks for an INK DAO:

1. Verify and assure the already eligible heterogeneous assets that are to be financed, prior to the issuance of a financial product. This typically means the physical control of the accounts that hold the heterogeneous (or off-host-chain) assets.
2. Set the risk control parameters based on the financing method used.
3. Carry out the clearing of heterogeneous assets in the case of delinquency, which includes the manual possession of such assets and the subsequent distribution of benefits to all rights holders.
4. IINK provides tools to implement different Auditor assignment processes, giving any governance body the flexibility to implement its sector-specific audit and clearing rules.

When Auditors carry out clearing activities due to delinquency or unwinding, they are rewarded a fee in the form of the assets to be cleared, on top of the governance reward allocated to them.

3.4 DAOs with Their Own Tokens

QUILL tokenomics is driven by the financial liquidity that INK facilities generate. However, INK recognizes that some DAOs are set up to govern with their own tokens.

In order to align the interests of these DAOs with that of QUILL holders, INK Finance will engage these prospective DAOs with token swaps, using the reserve in the Ecosystem Fund (see [QUILL Token Economics](#)). The rationale is intuitive: every QUILL token holder must be protected against freeriding, as it is assumed that INK facilities are unlikely to capture the economic output generated by these DAOs. The DAO tokens that are swapped in will be automatically staked into those DAOs' governance structure to earn emission, which will then be converted to QUILL tokens and accrued to the INK treasury. More significantly for the DAOs, the QUILL tokens they receive will also be automatically staked to the INK platform, earning them QUILL emissions that they can use to pay for their usage of the platform in the future.

Seat Auction and Challenge

To become a Voter or Auditor, candidates bid with QUILL Tokens (that might be sponsored) through an auction, and the top valid winning accounts will hold the seats. While retaining the seat, the holder can increase the pledge at any time to increase the governance reward, which also makes it more difficult for challengers to gain this seat.

An existing seat can be challenged by someone from a candidate pool at any time, if this mechanism is chosen at the DAO's construction, and the challenge will stay in effect for a set period after it is submitted. If the QUILL Tokens pledged by a challenger exceed that of the seat holder on the closing day of the challenge period, the challenger will become the new holder of the seat, and the pledged tokens of the replaced governor will be gradually returned, during which period all due governance reward will still be paid out.

4. INK Multichain Module

INK Finance aims to enable a DAO to be set up once on the mainnet and run on multiple blockchains within the same governance framework, on the back of a consolidated capital book. An INK DAO should be freed from the burden of chasing liquidity. It can go wherever INK facilities are deployed, and it should be guaranteed the highest capital efficiency for establishing its reputation across multiple blockchains.

Specifically, this module makes it possible to:

1. Move a DAO's entire operation to a new blockchain using migration tools.
2. Monitor a DAO's liquidity generation across all deployed blockchains and aggregate it back to the main capital book to calculate reward.
3. Consolidate a DAO's voting resolutions across all deployed blockchains and aggregate it back to the Master DAO for any relevant processing. Note that a master DAO for an ecosystem is different from the main capital book of INK (which resides on INK's mainnet). An ecosystem's master DAO can be on any INK-deployed blockchain.

This module is presently configured as a cross-chain bridge between INK Finance's mainnet and all deployed blockchains, but in the future it can carry other inter-operative tasks, such as programmatically securing, disposing, and distributing assets that reside on other heterogeneous systems, including enterprise chains, private chains, or corporate clouds.

Last but not least, this module currently delivers fast deployment on major blockchains that are EVM compatible, a hopeful approach as Solana is rolling out its EVM implementation at time of writing. Avalanche C chain is already EVM compatible, while Polygon, BSC, and HECO are natively homogeneous to EVM.

5. INK Integration Module

INK Finance doesn't intend to spend time reinventing the wheel. The Integration Module incorporates the latest relevant technologies—a manifestation of INK's value of one-stop service, allowing any financially focused DAO to concentrate on their ends instead of the means.

The Integration Module includes at least the following components:

**ZKP-based integrity
ensuring networks**

Humanode and Aikon
in particular

Oracle machines

**DEXs
on host blockchains**

for liquidation triggered
by risk events

**Off-chain custody &
clearing facilities**

Of the above external facilities, both Humanode and Aikon have strong cross-chain capability, and thus will be prepackaged in the Integration Module and deployed through the INK Multichain Module.

QUILL Token Economics

1. Overview

INK Finance empowers specialized DAOs to issue, risk-manage, and clear bespoke financial products. It is these specific DAOs who stand as credit mediators in financial transactions—the essence of virtual cross-chain interactions. INK Finance functions as a utility for credit discovery to establish the creditworthiness of DAOs. QUILL is the platform token for INK Finance.

Fee Utility

QUILL Tokens are designed to be a fee utility for using the INK facilities. They are primarily paid for and consumed by issuers who are seeking liquidity. The collected fees are then recycled and re-emitted through INK's reward and compensation mechanisms. The fees are calculated based on the financing currencies (e.g. ETH or USDC) and converted to INK equivalence. This mechanism anchors the valuation of the QUILL Token to both the quantity and the quality of the liquidities generated from the platform. In a non-inflationary scheme, it becomes obvious that the growth of liquidities generated by the INK Finance platform underpins the growth of QUILL Token valuation.

Governance Capital

With such a value proposition established, the QUILL Token can then be used as governance capital, since any credit player must always be backed by tangible capital. Members of any INK DAOs are required to pledge a minimum amount of QUILL Tokens, and the DAO needs to commit to a minimum number of QUILL Tokens collectively. Challenging and Sponsoring tools are provided as part of the INK Governance Module to allow any DAO to promote internal competition (see below for details).

As discussed in the Housekeeping section, prospective DAOs with their own governance tokens are supported, and they will be required to swap their tokens with the QUILL Tokens in the Ecosystem Fund (see [QUILL Token Distribution, Vesting, and Usage](#)). The incoming DAO tokens will be automatically staked back into the DAO's governance structure, and the emission will be converted into QUILL Tokens and accrued into the INK Treasury, which serves as one of the reward pools for INK stakers.

Staking and Sponsoring

There is initially a Staking Pool to emit rewards to bootstrap ownership of QUILL Tokens in the early stage. Eventually, however, the emission will deplete this pool, and the focus of encouragement will shift to the assistance provided by QUILL Token holders to fledgling DAOs.

DAO assistance is provided by Sponsors, who are stakers to begin with. They can designate the staked QUILL Tokens to be used for the DAOs' internal management, such as in the seat auction and seat challenging process. These Sponsors receive not only the staking emission, but also emission from the INK Treasury for the fees generated by the DAOs they sponsored. As long as the DAOs keep performing, they will continue contributing to the Treasury, and their Sponsors' staked positions will be rewarded—even after the normal staking pool is depleted in the future.

2. QUILL Token Distribution, Vesting, and Usage

Total Initial Issuance

100M

Inflation

NO

INK Treasury:

0 initial balance, no upper limit in growth

The following table shows the initial issuance of QUILL Tokens and the distribution among different pools, as well as their usage and release schedule.

TOTAL ISSUANCE 100M TOKENS	PCT.	QUANTITY	REMARKS	VESTING TERMS
Seed & Anchor Round	10%	10M	Seeding and anchor institutions contributing to the early development of the project	<ul style="list-style-type: none"> 10% vested upon exchange listing, and thereafter, the remaining is locked for 1 year, then vested monthly for 2 years
Strategic Round	10%	10M	Strategic institutions contributing to the early growth of the protocol	<ul style="list-style-type: none"> 10% vested upon exchange listing, and thereafter, the remaining is locked for 8 months, then vested monthly for 2 years
Community Round	5%	5M	Reg D and Reg S and joint IDOs	10% vested upon exchange listing, and thereafter, the remaining is locked for 6 months and/or 3 months (depending on the prices on the trenches), then vested monthly for 1 year.
Exchange Liquidity	2.5%	2.5M	To provide to marketing firms and market makers	
Project Team	20%	20M	Incentives for project team's early effort	5 years vesting, with 1/10 vested every 6 months after exchange listing
Staking Pool	25%	25M	Rewards of newly minted/unlocked QUILL Tokens to initial bootstrappers	Emitted in 20 years, according to a predetermined curve
Community Pool	5%	5M	Allows INK to set bounties and quests that the INK Community can complete for reward	Fully unlocked
Insurance Fund	10%	10M	Compensation for the accidental failure of governance risk control mechanism, and/or malicious acts	With a max payout of 10% of the initial balance; 30% of the initial balance must be maintained all the time
Ecosystem Fund	12.5%	10M	Incentives to organizations with their own governance tokens to build on INK; can also be used to engage in token swap with those governing with their own tokens	Fully unlocked

3. Staking Rules in Detail

3.1 Emission of Normal Staking Pool

The pool accounts for 25% of the total issued QUILL Tokens, or 25,000,000. The initial emission from the Staking Pool follows a smooth curve over 20 years as calculated below, subject to an annual adjustment of the tapering schedule, based on the observed economic metrics of the previous year.

$$\text{Daily Reward Emission} = 3800 * (0.98^{0.0000005 * Cn}) ^ (0.618 * Cn)$$

Cn is the day count from its the release to the present day

3.2 Fees and the INK Treasury

The INK Treasury starts with a balance of zero, and it accrues on actual fees charged by all INK facilities, and the staking income from any DAO tokens swapped in.

Rule 1: Any DAO contract generated from the template in the INK Governance Module imposes a minimal fee of 0.25% of the raised currency proceeds, or the equivalence in QUILL Tokens, and accrues 75% of the fees to the INK Treasury. The minimal fee will be reviewed and adjusted by INK Finance annually.

Rule 2: Any DAO wishing to charge more to the issuers can vote on the additional fee parameter. The deduction from the proceeds will be enforced by the DAO contract and distributed among DAO members according to their internal weights.

Rule 3: Any DAO wishing to incentivize investors who buy products issued by its facilities can set its own reward mechanism, which is voted on by the DAO members, and enforced by the DAO contract to distribute.

Rule 4: Each emission drawdown from the INK Treasury shall be 50% of the balance at the time, and this emission will be released linearly in 60 days to the stakers.

Rule 5: INK Treasury reward emissions can be earned by stakers as additional income, if they choose to sponsor the members of a particular DAO who don't have enough QUILL Tokens to bid for the governance seats or to defend their seats in challenges. The sponsors will share this reward with the DAO members that they sponsor, The DAO can vote on the proportion of reward shared between the sponsors and the sponsored members.

Rule 6: The internal weight and pledge ratio of a particular DAO's role in the facility, as determined by the DAO itself, are used to calculate the total reward and then allocated to any sponsor. For example, the reward attributed to DAO member Y of facility X is calculated as follows:

$$\text{Reward}(y) = (\beta(Y) * \text{Reward}(X)) * S(y) / S(Y);$$

$S(y)$ is the amount of QUILL Tokens staked by one sponsoring account, and $S(Y)$ is the total amount of QUILL Tokens staked by all sponsoring accounts that member Y of DAO X receives

$\beta(Y)$ is the Y's internal weight within DAO X, set at its construction time, and votable once it starts operation. The weight is a proportional number, and the sum of all weights assigned to all the members in DAO X must be 100%.

Rule 7: If a staker chooses to sponsor certain DAO members of a financial facility, his pledge of QUILL Tokens in the general staking pool must be locked for at least 30 days, after which they may withdraw the pledge and any sponsorship associated with it.

Core Team Members

Tony Tang [Linkedin](#)

CEO, Founder

- Quant Analyst, Fixed Income Arbitrage, Solomon
- Brothers Managing Director, FICC Derivative Trading,
- Bear Stearns Managing Director, Global FICC Derivatives
- Trading, Fimat USA
- Director, APAC Head Trader, Global Securitized Products, Citigroup
- Managing Director, Head of North Asia Client Solutions, AWM, Deutsche Bank
- Executive Partner, Fintech & Medi Tech Private Equity, Dow Capital

Tongji University, BE Electrical Engineering

University of Albany, SUNY, MS Computer Science

Tony has had over two decades of trading and asset management at top financial institutions, across several key financial sectors. He has deep theoretical insights, practical experience, and stellar track records in the global financial industry, with an extensive business and financial network. He is an expert on securitization, derivatives trading, asset management, and FinTech VC, and an enthusiast in blockchain and artificial intelligence.

Clayton Rebenda [Linkedin](#)

Director of Multi-Chain Development

- Software Engineering Director, SAITO
- Sole Proprietor, Dualistic Holdings
- Software Engineer, Google
- Senior Game Developer, Amplify Inc.

Lehigh University, Computer Science, Electrical Engineering

Clay is an outstanding and experienced network and blockchain engineer and architect who specializes in distributed network protocols. He was part of Google's advanced search team, and the main contributor of the SAITO blockchain project.

Dan Zhong [Linkedin](#)

Director of Financial Architecture

- Senior Enterprise Architect, Pearson
- Principal Software Engineer, Fidelity
- Software Engineer, IBM
- Software Engineer, Nortel Networks

University of Florida, MS Computer Science

Fudan University, BS Computer Science

Dan is a senior architect of large financial and enterprise systems and a senior software engineer with a proven track record at various leading technological and financial institutions. He specializes in distributed networks, integration of heterogeneous financial systems, and project management.

Andy Proffitt [Linkedin](#)

Chief Brand Officer

- Senior Trainer Disney Consumer Products, The Walt Disney Company, China
- Marketing Director, TCA, Shanghai, China
- Founder & CEO - Heritage Education, China/USA

Jacksonville University, BA Communications

With his solid track record with both Fortune 500 companies and startups, Andy will lead branding and marketing efforts for INK Finance, bringing both his strategic planning capabilities and hands-on approach to the project.

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