# EntroFi White Paper V1

## Overview

EntroFi is an innovative DeFi lending platform designed to significantly improve the efficiency of financial infrastructure by bridging DeFi capitals directly with loan borrowers who use real world assets or native NFTs as collaterals.

In specific, it is a two-way portal that pools and channels DeFi liquidity to SMEs and individuals who have been neglected or marginalized by traditional financial intermediaries, while on the other hand, brings a variety of real-world collateral assets (account receivables, real estates, pledges of equity, manufacturing & logistic equipment) as well as existing native NFTs (Metaverse properties, artifacts etc.) to DeFi protocols by converting them into a new type of financial NFTs. Our mission is to create a next gen financial ecosystem where liquidity as well as assets flow freely from on-chain to off-chain and vice versa with maximum efficiency and minimum hustle.

## Operational Structure

The EntroFi network operates based on concept of NFT to accomplish two primary objectives:

1) Enables real world assets to access DeFi liquidity by connecting to DeFi protocol via with NFT infrastructures.
2) Incorporates existing native NFTs with financial attributes via collateralization, therefore significantly improves their overall liquidity.

Specifically, the network operates on three separate layers:

***Protocol Layer***

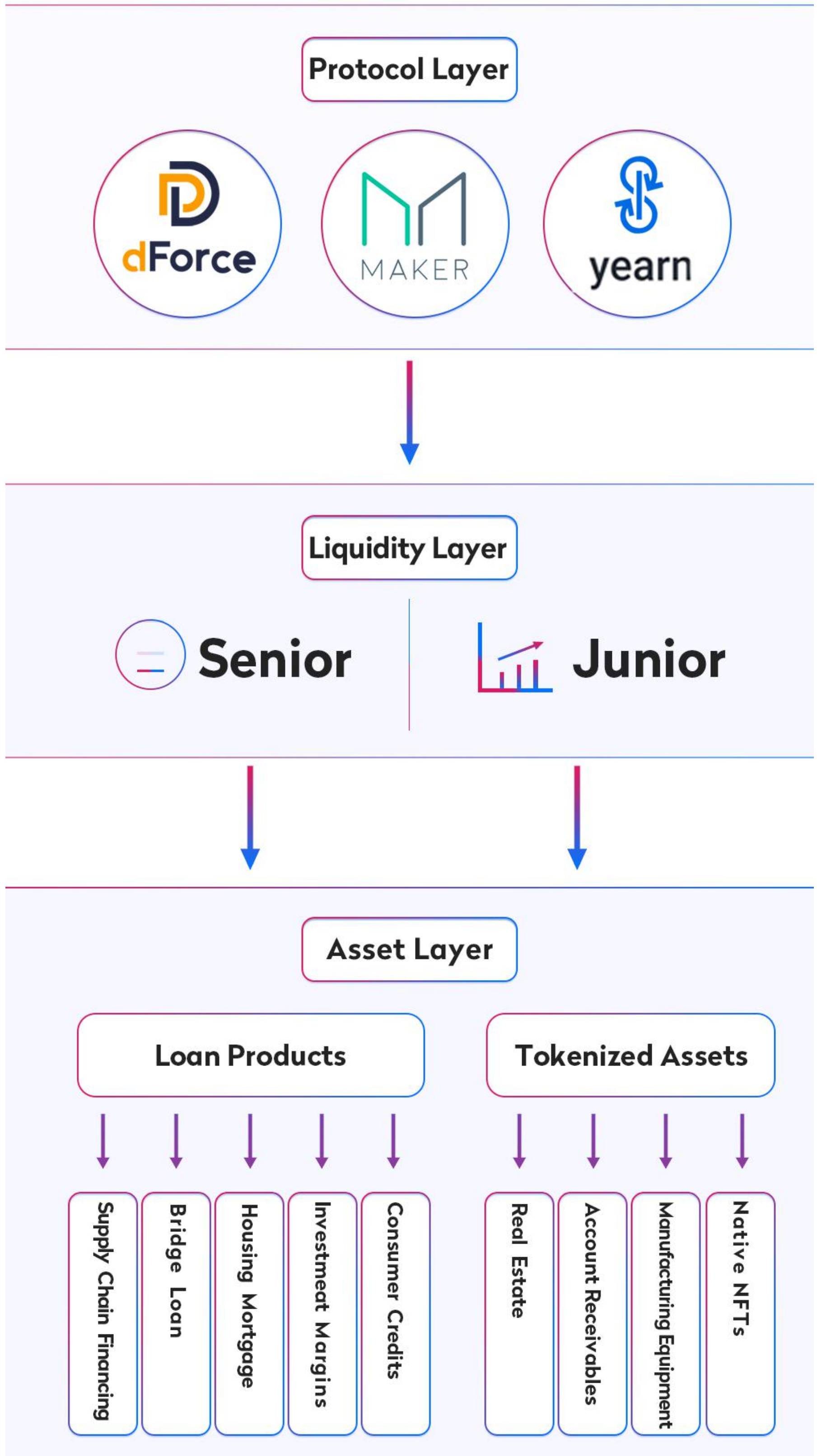
- *The protocol layer comprises external DeFi or CeFi protocols/operators EntroFi are to integrate with, which provide necessary financial infrastructure for NFT-based assets or loan transactions. These external protocols include MakerDAO, dForce, Yearn, Aave, BlockFi, Opensea, Decentraland etc. Participants at the protocol layer interact with EntroFi 's own protocol to facilitate three major roles : 1) to provide capital to fund EntroFi originated NFT assets; 2) to provide NFT assets for funding* *from EntroFi; 3) to provide yield for EntroFi's idle liquidity.*

***Liquidity Layer***

- *Liquidity Layer is where EntroFi incentivizes, pools, optimizes, and structures liquidity to provide tranched financing for NFT assets. These liquidity could be comprised of senior or junior capital, and each are respectively associated with different risk/reward profiles.*

***Asset Layer***

- *Assets layers is the destination for EntroFi's liquidity deployment, and it includes both off-chain and on-chain assets. Off-chain are real world assets backed NFTs, i.e., single assets (single borrower, asset-back transaction, secured loans, tokenized real estate, tokenized bonds etc) or portfolio assets (REITs, consumer credits, mortgage portfolio, loan portfolios etc) and on-chain NFTs assets (i.e., Uniswap LP tokens, Opensea NFTs, Decentraland users etc)*



Protocol Layer
dForce
MAKER
yearn
Liquidity Layer
Senior
Junior
Asset Layer
Loan Products
Tokenized Assets
Supply Chain Financing
Bridge Loan
Housing Mortgage
Investmeat Margins
Consumer Credits
Real Estate
Account Receivables
Manufacturing Equipment
Native NFTs

## Network Topology

Users can participate EntroFi's open network from 4 different perspectives: **Liquidity Facilitator**, **Originator, Borrower,** and **Risk Mitigator.**

***Liquidity Facilitator***

- *EntroFi will build its own liquidity pool where anyone can contribute their liquidity; meanwhile, other mainstream DeFi protocols or CeFi desks such as Maker, dForce, Yearn, or BlockFi etc. can also make significant contribution as liquidity providers.*

  *A Liquidity Facilitator provides capital mainly in stablecoins to fund loan transactions originated across EntroFi, these include lending protocol like MakerDao, dForce, Aave etc. and aggregators like Yearn or CeFi desk like BlockFi. The capital from these pools can be senior capital or junior capital. EntroFi's own liquidity aggregator may also provide liquidity along with 3rd party protocols/CeFi desks.*

***Originators***

- *Originators are professional intermediates (individuals or institutions) who help borrowers to secure loans on EntroFi and assist in aspects of structuring, setting terms, due diligence, documentation, execution and post-transaction management etc. Originators are not responsible for ultimate creditworthiness of transactions.*

***Borrowers***

- *These are individuals or institutions who seek loans from EntroFi. The off-chain borrowers comprise of financial institutions, trading desks, SMEs or individuals, originated loans can also be tokenized into financial NFTs. The on-chain borrowers are DeFi users already in possession of native NFTs from mainstream platforms such as Decentraland and Opensea etc., which can also be used as collaterals on EntroFi.*

***Risk Mitigators***

- *EntroFi platform will set aside partial of its ERF token for risk mitigation, in addition, there are also Risk Mitigator (ERF token stakers), where their staked tokens will be used to recapitalize bad loan positions in the events of default. In the meantime, Risk Mitigators are able to earn extra returns from the subordinated or junior tranche instruments. Risk Mitigator is not mandatory for all transactions, yet it provides an alternative option for originators or borrowers to further diversify the risk profile associated with a loan or asset.*

## Use Cases Illustration

**CASE 1 – Provide DeFi Financing for NFTs Loan backed by Real-world Assets**

- A real-world SME needs capital to grow its top line revenue.
- They use their supply-chain receivables as collateral to originate a loan.
- The loan is then issued as NFT tokens on-chain.
- NFT is used as collateral to apply for DAI-denominated loan from Maker or USX-denominated loan from dForce.

**CASE 2 – Provide Unsecured Credit Loan to Trading Desk**

- Fund A is a very reputable trading desk with an AUM of over $500m and actively trades across markets.
- It requested for a $2m unsecured stablecoin loan from EntroFi and is willing to pay 5% APY.
- It registered his loan application on EntroFi.
- It ultimately gets funded via EntroFi's own liquidity pool for the junior tranche plus a senior tranche facility from dForce or Maker.

**CASE 3 – Tokenized Real-world Assets as NFT Tokens**

- Company A is a real-estate developer, who uses Securitize to issue regulated security token (which is NFT) with its property as underlying asset.
- It then registered on EntroFi and applied from Maker for accepting its NFT as collateral.
- Once got approved, it will use the NFT token to draw down a DAI-denominated loan.

**CASE 4 – On-Chain Artifact NFT as Collateral to Borrow DeFi Loan**

- Bob is a NFT investor who just purchased over 12 curated NFT artifacts from

Opensea for $2 million.

- He wanted to apply for a $500k loan from DeFi protocol and started to register his request for loan on EntroFi platform using his $2m NFT as collateral.
- MakerDAO accepted its loan application and granted $500k DAI 6-month term loan.

**CASE 5 – Native Metaverse Property as Collateral**

- Alice is an early Decentraland user, and purchased several parcels of lands in Decentraland for $500k (historical cost);
- She tried to use her lands as collateral to borrow money for reinvestments;
- She registered her loan request on EntroFi and applied for a loan from dForce;
- dForce carried out their due diligence and went through their Risk Committee and decided to grant a $100k USX to fund her virtual land construction.

## EntroFi Token (ERF)

The EntroFi Token (ERF) is EntroFi Protocol's governance token. ERF tokens can be used to vote on all relevant governance matters. EntroFi Protocol governance will take time to mature and we will build strong and diversified community to engage in our governance process.

Governance over EntroFi is managed by stakers of EntroFi Tokens (ERF).

ERF is to capture the following protocol fees:

1) Fees from liquidity facilitating; supply side fee.
2) Fees from funding assets, charges against origination or borrower; demand side fee.

## EntroFi Token Supply

There will be a total of 1,000,000,000 ERF tokens, with breakdown and vesting schedule to be disclosed when we approach the ‘Token Generation Event’.