

Numerai is building a blockchain based hedge fund using crowdsourced predictions.

The platform hosts a data science competition platform for stock market predictions, where participants can submit machine learning models. Users stake their Numeraire (NMR) tokens to participate and the most accurate models are rewarded with NMR tokens. These models are then included in Numerai’s overall meta model

Project Overview

Name	Numeraire
Issuer	Numerai
Category	Utility token
Sector	Asset management
Sale Start	N/A
Sale End	N/A

Token Overview

Name	Numeraire
Symbol	NMR
Type	Token
Initial Distribution	1,000,000
Current Supply	2,352,480
Max Supply	21,000,000
Emission Type	Fixed

Resource Links

- [Website](#)
- [GitHub](#)
- [Twitter](#)
- [Slack](#)
- [Reddit](#)
- [Medium](#)
- [Whitepaper](#)

Project Background

Numerai, founded in Dec. 2015, is building a blockchain based hedge fund that utilizes artificial intelligence and crowdsourced stock market predictions. The platform relies on a monthly machine learning and data science “tournament” where users, primarily data scientists, can submit trading algorithms about the stock market. Numerai then employs artificial intelligence algorithms to analyze the predictions, and the best are included in Numerai’s “meta-model” which combines all the underlying inputs on which it will trade the stock market.

The team believes there are inefficiencies in the stock market related capital allocation and that creating a free and open dataset for machine learning will help solve this problem. Numerai claims that inefficiencies are in part due to assigning metrics to market data, such as stock price or dividends. Each month users are given an encrypted dataset that has standard market data labels removed. By removing the context of data the project believes users will submit more accurate predictions. For example, stock price could be labeled as “feature 1”, so users create stock prediction models objectively based on historical data as opposed to using personal biases about how stock price might affect a specific company. Numerai encrypts the dataset that tournament participants are given to prevent participants from copying the underlying trading strategy.

By giving the dataset away for free the team believes it will allow for open participation by users around the world, fostering a collaborative approach and generating better prediction models compared to typical hedge funds.

In Feb. 2017, the company announced its token, Numeraire (NMR), an ERC20 token used to participate in tournaments on the platform. The platform utilizes a “skin in the game” model where users are required to stake NMR to receive NMR for their accurate predictions. If the overall hedge fund performs well, they will distribute those returns in the form of NMR to users.

Technology

Numerai allows users to create their own prediction models that they can send to an internal smart contract along with staked tokens. After a pre-designated amount of time has passed, usually at least one month, Numerai evaluates the submitted predictions. Users that perform well will receive their staked NMR as well as an NMR reward. Poor predictions will result in the staked NMR being burned.

Each competition has a specified reward pool tied to the performance of the overall fund. As the fund's performance increases the overall reward pool can grow as well. Rewards are given to users based on the performance of their models and the amount of NMR staked.

In order to prevent users from mimicking the fund's trades themselves, Numerai encrypts its trading data before sharing it. The specific artificial intelligence algorithms that Numerai uses for trading are proprietary, even though the dataset is publicly distributed. Users are not submitting their actual models but instead their predictions, allowing them to keep their models should they decide not to participate. All submissions are anonymous, as Numerai does not require participants to disclose any personal information to submit stock prediction models.

The NMR token is used for staking in Numerai's prediction tournament, holding NMR provides no other function.

Distribution

Numerai did not conduct a token sale, opting to instead distribute one million NMR to a pool of 12,000 active users on the platform. Tokens were distributed relative to the success levels of the prediction models submitted by individual users.

The total supply of NMR is capped at 21 million, with a limit of 100,000 new tokens released per week. New tokens are released through the staking mechanism or a bounty program focused on improving the source code and tournament results.

On May 9th 2018, Numerai announced that four million NMR were minted as it had not needed the weekly allowance. Of this four million, three million were locked up until 2028 by staking it in a tournament with a 2028 resolve date. The remaining one million NMR are intended for new airdrops and partnerships with investors.

Team

Richard Craib
Founder

- Experience developing trading algorithms

Matt Boyd
President & COO

- Former Treasury and Capital Markets Manager at Sensato Investors

Anson Chu
Vice President of Engineering

- Previously at Uber and Salesforce

Natasha-Jade Chandler
Vice President of Communications

- Previously at DataProphet and SDGO

Advisors

Fred Ehrsam
Co-founder of Coinbase

Howard Morgan
Co-Founder at First Round Capital

Joey Krug
Co-CIO at Pantera Capital

Juan Benet
Founder & CEO of Protocol Labs

Ash Fontana
Managing Director at Zetta Venture Partners

Peter Diamandis
Co-Founder & Vice Chairman at Human Longevity Inc.

Investors

Union Square Ventures

Olaf Carlson-Wee

Ver Ploeg Ventures

First Round Capital

Maiden Lane

S2 Capital

Playfair Capital

Edelweiss

Naval Ravikant

Samvit Ramadurgam

Additional Resources

- [Epicenter Interview with Numerai Founder](#)
- [Numerai's Master Plan \(Roadmap\)](#)
- [Video Explanation About Numerai](#)
- [Numeraire Introduction](#)
- [Learn How Numerai works](#)
- [Forbes: Numerai Article by Laura Shin](#)

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