HUMANODE

Sybil resistance in modern PoW and PoS networks is capital-based, making them plutocracies at the very core.

Plutocracies inevitably lead to centralization. Mining cartels and validator oligopolies dominate the market.

PROBLEM

We solved this by getting rid of PoS and PoW that make validation power dependent on the amount of capital and by introducing private decentralized biometric verification of human existence and uniqueness for validator deployment.

Nodes in the Humanode network are created through private biometric verification of uniqueness using facial recognition AI modules.

Nodes are equal in terms of validation and voting power, bringing true equality between peers in decentralized networks.

1 human = 1 node = 1 vote. All validators become equal owners of the blockchain they run. The protocol remembers that a node is bound to a unique face of a living human.
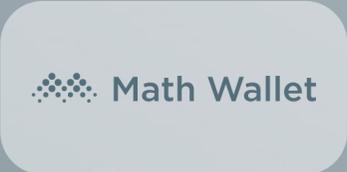
If you try to deploy another node with the same face the attempt will be rejected. Biometric data is private and stored in a decentralized way across validator nodes in the system.

Combined with blockchain, it creates a first-ever human-based verification layer.

SOLUTION

HUMANODE

① ② ③ ④

Biometric verification

1 human – 1 vote DAO

Validator onboarding program

From 300 validators to 1'000

Incubation program

Biometric NFT minter
Sybil-resistant airdrops

GO-TO-MARKET STEPS

HUMΔNODE

Consensus-agnostic
protocol

Substrate
framework

Private
biometric search
and matching

1 human = 1 vote DAO
'Vortex'

Decentralized auditable
liveness detection

EVM-compatible
smart-contract layer

TECH STACK

HUMANODE

UNIQUENESS CHECK

The possibility of a match between two different people

1 OUT OF
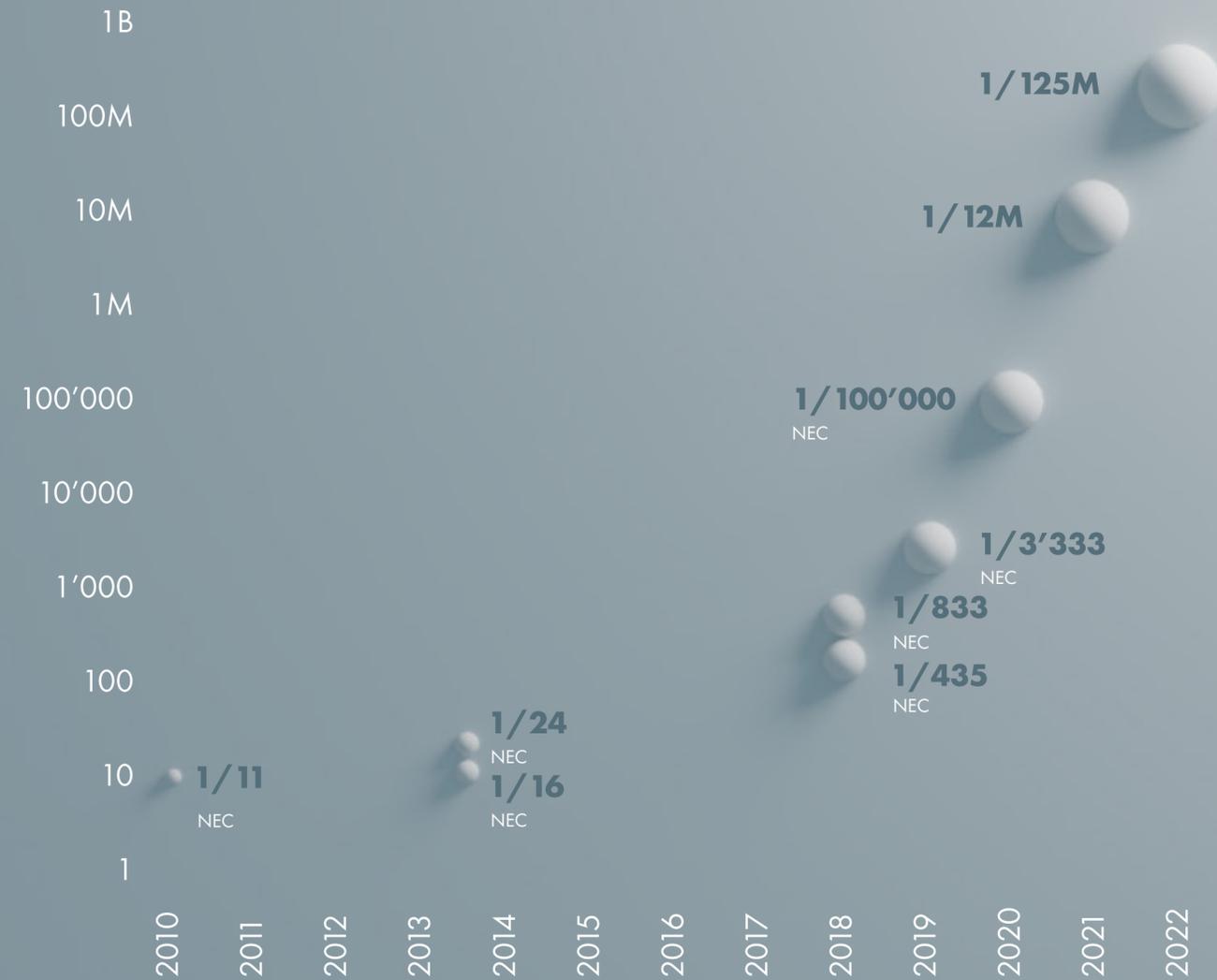125 M

BIOMETRIC SYBIL RESISTANCE

HUMΔNODE

LIVENESS CHECK

The possibility of spoofing an identity without a real human in front of the camera
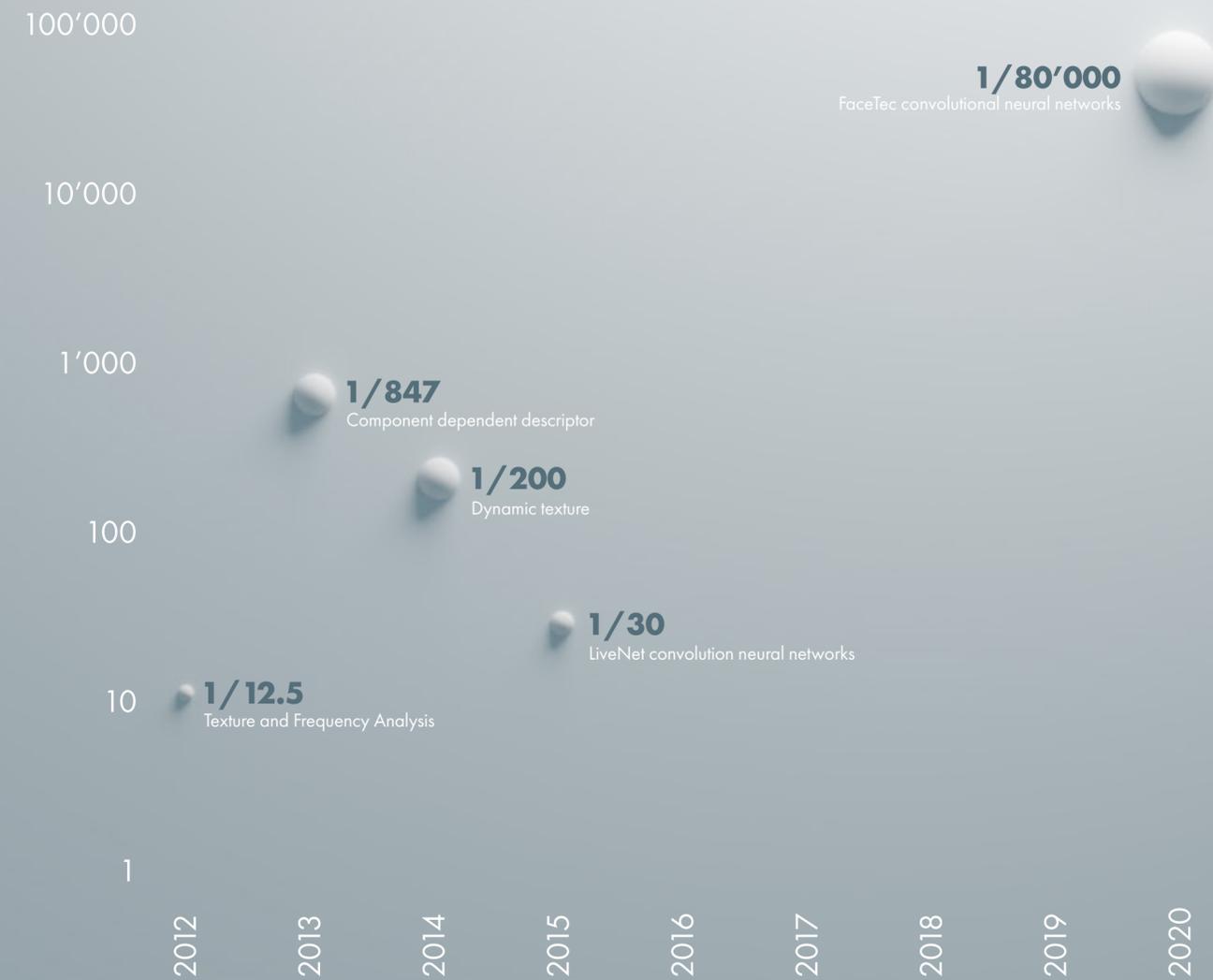
1 OUT OF

80 K

BIOMETRIC SYBIL RESISTANCE

HUMANODE

1-n matching algorithm accuracy growth over 13 years

Liveness detection accuracy comparison over 9 years

1/125M

1/12M

1/100'000
NEC

1/3'333
NEC

1/833
NEC

1/435
NEC

1/24
NEC

1/16
NEC

1/11
NEC

1B
100M
10M
1M
100'000
10'000
1'000
100
10
1

2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

1/80'000
FaceTec convolutional neural networks

1/847
Component dependent descriptor

1/200
Dynamic texture

1/30
LiveNet convolution neural networks

1/12.5
Texture and Frequency Analysis

100'000
10'000
1'000
100
10
1

2012 2013 2014 2015 2016 2017 2018 2019 2020

INCREASE IN BIOMETRIC ACCURACY

HUM∆NODE

2021

Q1
Public tests
of biometric app

Q2

Q3
Bioauth consensus

Aura testnet launched
>100 validators

Q4
Testnet II

Validator app
> 10'000 validators
joined

2022

Q4
Mainnet

Q3
Bug fixes

Refactoring tech debt

Q2
Public EVM-compatible
Testnet III

Bioauth + BABE + Grandpa
consensus

Biometric authorization
service

Q1
Internal EVM-compatible
Testnet III

2023

Q1
Fath calculating algorithm

Q2
Distributed private
biometric enclaves

Open-source reps

Q3
Zero-knowledge
biometrics tests

Q4
Cost-based
fee system

2024

Q3
BCI / Neurosignatures
private tests

Fath

Q2
Multi-modal
biometric security

Formation

Q1
One-click humanode app

Proposal pool system

Vortex DAO

Developer framework

0.2%

PRESALE OPTION 3

20% at TGE
80% 6 months lockup
6 months vesting

IMPORTANT!
All vesting schedules start
from the Mainnet Launch
(November 15th, 2022)

2%

MAINNET VALIDATORS

01 month lockup
47 months vesting

10.2%

SEED ROUND

12 months lockup
24 months vesting

11%

CORE TEAM

12 months lockup
36 months vesting

3%

MARKET MAKER

Loan
0 months lockup
0 months vesting

10%

ECOSYSTEM FUND

36 months lockup
0 months vesting

5%

ANGEL ROUND

12 months lockup
24 months vesting

10%

STRATEGIC ROUND

06 months lockup
30 months vesting

9%

BROADER TEAM

24 months lockup
36 months vesting

0.5%

TESTNET PARTICIPANTS

100% at TGE
0 months vesting

0.15%

PRESALE OPTION 2

30% at TGE
70% 3 months lockup
3 months vesting

36.9%

TREASURY RESERVE

12 months lockup
48 months vesting

0.5%

ECOSYSTEM INCUBATORS

100% at TGE
0 months vesting

0.56%

PRESALE OPTION 1

100% at TGE
0 months vesting

1.1%

IDOs

30% at TGE
70% 3 months lockup
3 months vesting

1%

INTEGRATION

20% at TGE
80% 6 months lockup
6 months vesting

HUMΔNODE