



# GNOSIS

A Prediction Platform | [gnosis.pm](https://gnosis.pm)

# Decentralized Prediction Markets

**Gnosis** enables disintermediation of massive markets.

**Financial:** Gnosis will allow new financial products to emerge. Open, efficient, flexible financial markets turn every future datapoint into a market.

**Betting:** Global liquidity pool, lowers barriers to entry for global online betting.

**Gnosis** is positioned for long-term shift to AI information economies.

Over the next decades, we will see an unprecedented shift towards **AI-based information** arbitrage economies. Decentralized prediction markets will be the ideal medium for this exchange.

**Gnosis** is the platform for the next generation of prediction market applications.

# The Problem

- **Prediction markets** have limited accessibility, liquidity, and market variety resulting from over-regulation
- Traditional applications operate on centralized platforms that are proprietary, silo data and lower overall liquidity.
- There is a high cost associated with constructing custom financial instruments
- Efficient, flexible, and scalable markets for specialized information exchange do not exist



Our mission is to source the world's wisdom

# Our Objectives



## Build the World's Most Efficient Forecasting Tool

The vision is that prediction markets can enable a more efficient and informed world. Prediction markets and oracles will bridge real world events to the blockchain.



## Create the Google of Customized Information Searching

Gnosis enables anyone to ask a question and fund the search for answers. This creates new economic opportunities for subject experts and more efficient avenues for crowdsourcing and aggregating information. The power of “search” is decentralized.



## Become the Standard for Predictive Assets

Gnosis seeks to establish a global, open, prediction market platform with a single liquidity pool. This limitless resource enables the simple creation of custom prediction market applications and embodies a flexible marketplace for blockchain oracle services.

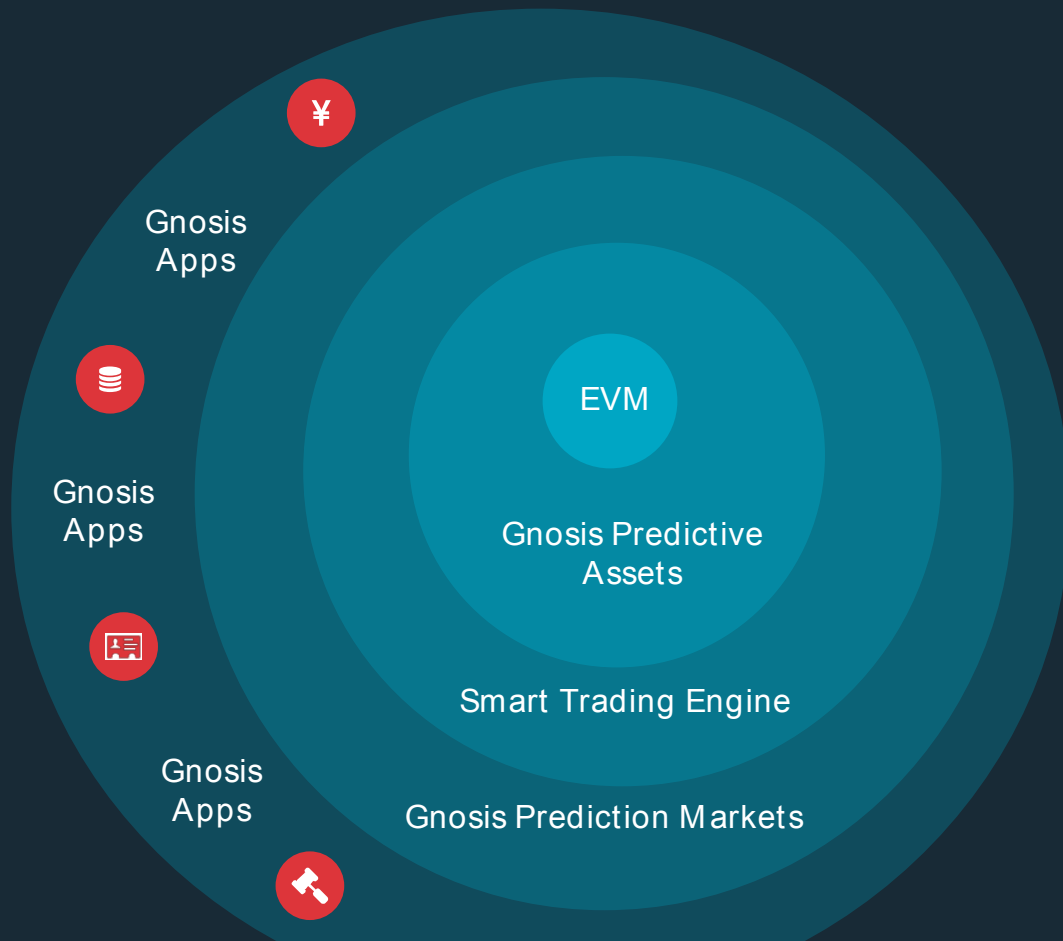
# Our Thesis

	Disruption	Decentralization	Blockchain
Our Assertions	<p>Prediction Markets will disrupt several of the largest existing industries and provide a platform for machine information economies.</p>	<p>In order for a prediction market platform to become truly disruptive, it has to be universal. It should be decentralized, permissionless, and trustless.</p>	<p>The <b>Ethereum</b> network is an ideal protocol for building our platform.</p>
Key Dimensions	<ul style="list-style-type: none"><li>• Financial instruments</li><li>• Online betting</li><li>• Risk management</li><li>• AI information sales</li></ul>	<ul style="list-style-type: none"><li>• Eliminates fund loss risk</li><li>• Open access and guarantees for apps</li><li>• Shared liquidity pool with optimal odds</li><li>• Regulatory arbitrage</li></ul>	<ul style="list-style-type: none"><li>• Open blockchain network</li><li>• Smart Contracts for truly decentralized application</li><li>• App ecosystem and network effects</li></ul>

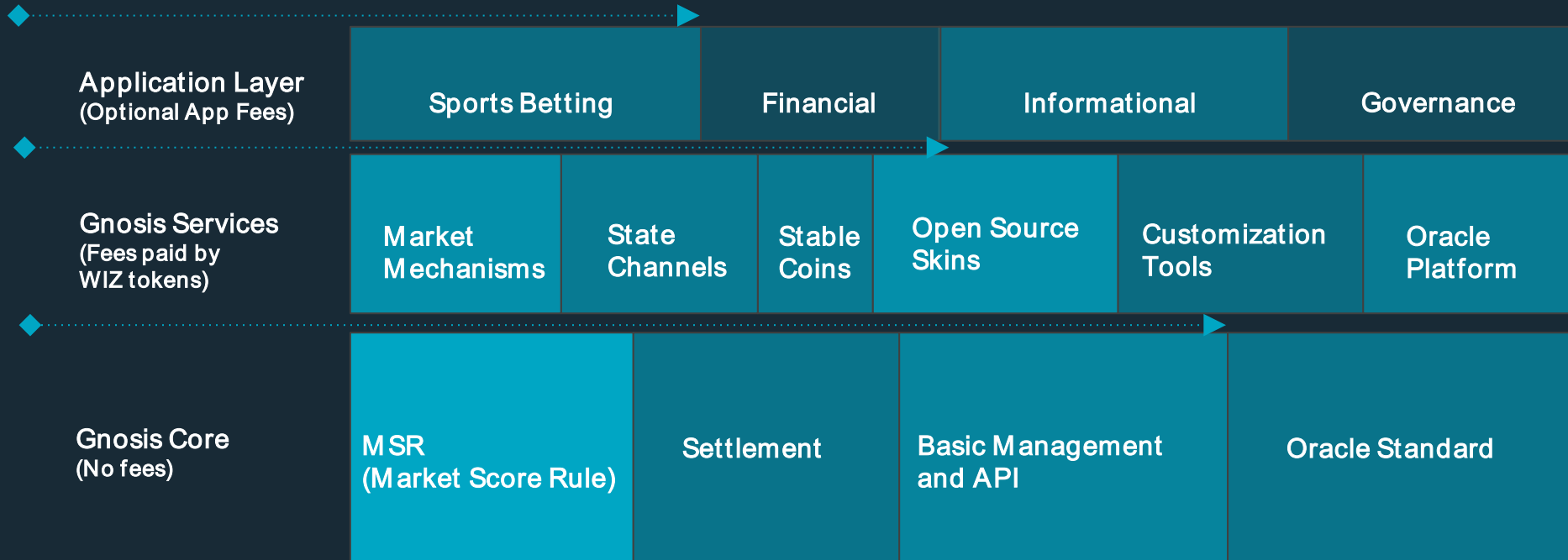
# Gnosis Architecture



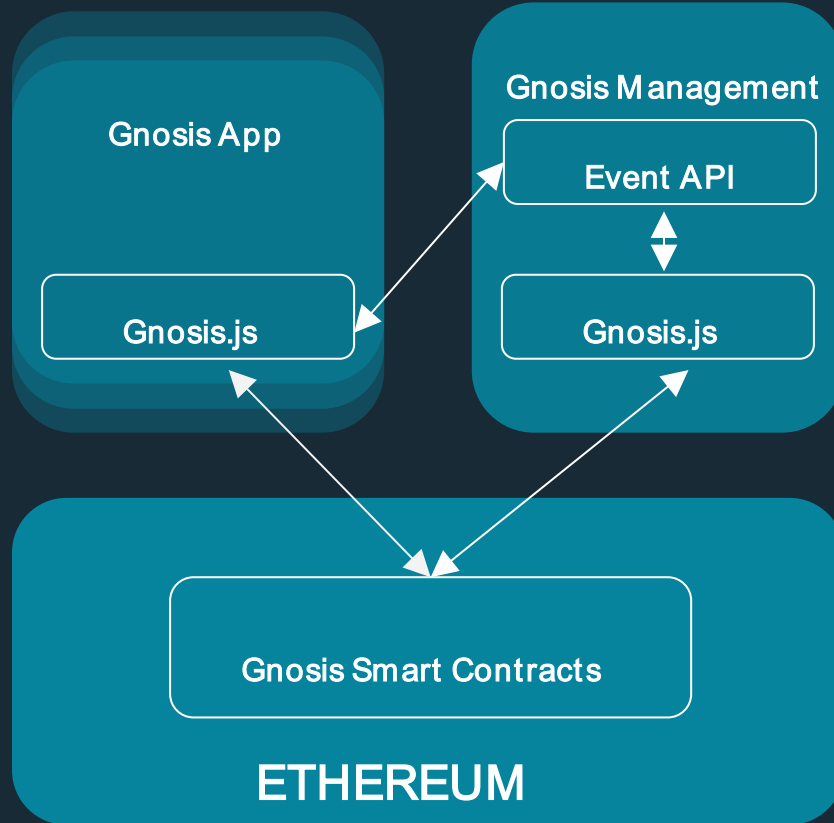
# Platform Architecture



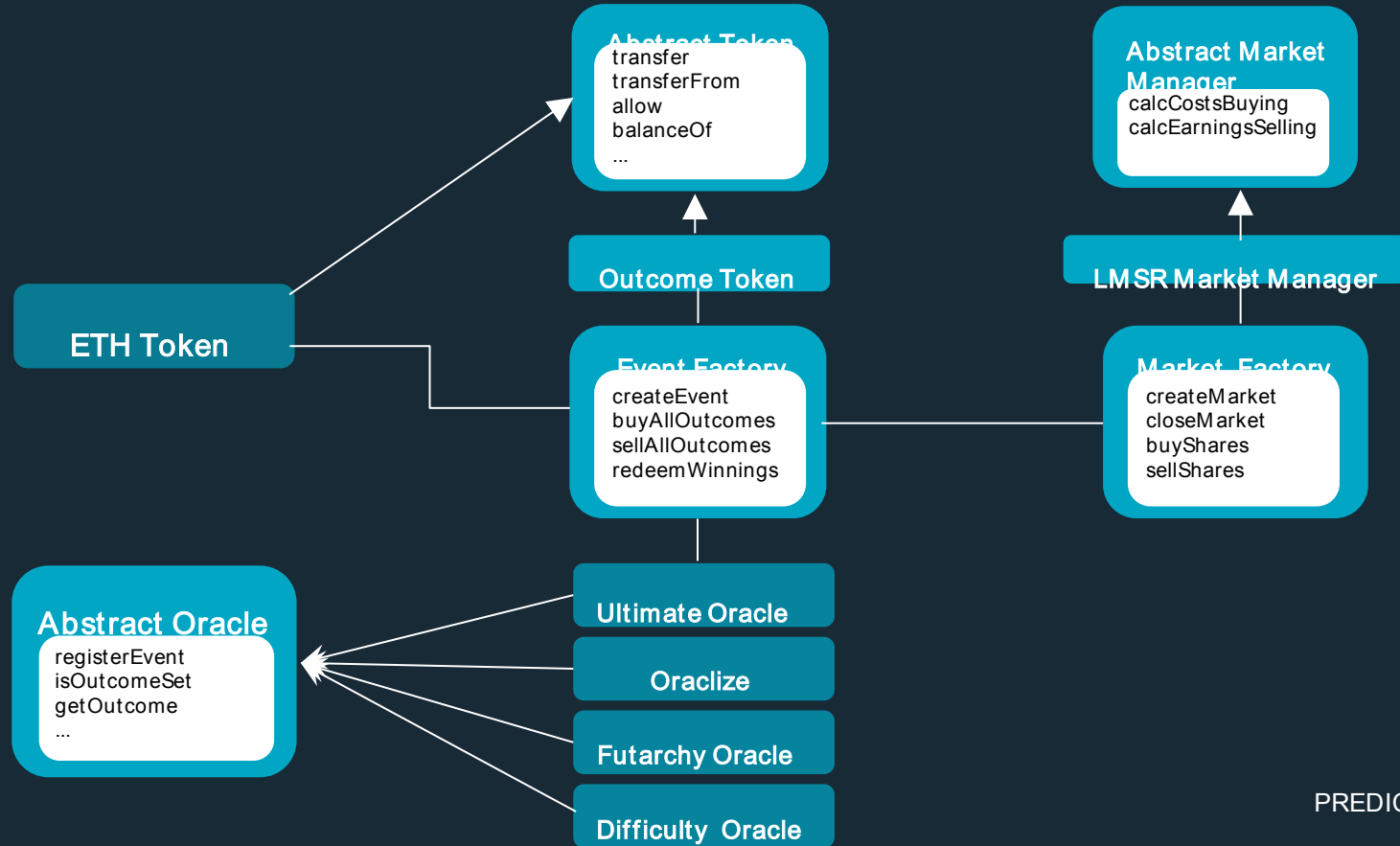
# Gnosis Platform Layers



# Technical Architecture



# Contract Class Diagram



**Gnosis** will open **a plethora of new economic opportunities** for participants in the platform.



# Gnosis Applications



## Use Case

### Sports Betting

Lower fees, better odds, reduce barrier to entry, global access

### Financial Instruments

Drastically lower costs to create specialized OTC instruments

### Insurance + Hedging

Can create insurance contracts using PM, oracle, and smart contract

### Information

Ask question, provide incentive, market provides answer

### Governance

Futarchy, market based governance

### Incentivization

Incentivize action

## Overview

Become liquidity pool and platform for global ecosystem of apps

Instruments on fundamentals

Mirror assets, access new markets

Dis-intermediates contracts/overhead, crowdsources actuarial work

Useful for forecasting the likelihood of any event

Information sales

Can revolutionize state, corporate, DAO, nonprofit, etc.

Ex: Incentivize software exploits to be found

# Sports Betting



## Problem

- Access is typically limited due to varying regulations
- Sports betting markets have liquidity issues and information is typically siloed
- Must trust site - risk of theft

## Market Opportunity

- Potential to reach regulated and unregulated markets on a global scale
- Constantly growing, \$36B+ sector
- Minimize shadow gambling and increase tax revenues

## Solution

- Wager on the outcome of any sporting event on a decentralized prediction market
- Gnosis markets can be used as raw data for statistical gambling models

## Major Participants

- Betfair
- William Hill
- Professional bookkeepers

# Financial



## Problem

- Fees can be unbearably prohibitive
- Limited access and flexibility to OTC instruments
- No markets for fundamentals

## Market Opportunity

- Any existing financial instrument can be synthetically emulated using prediction markets
- Enable research firms to sell their information more directly
- Next generation of derivatives products

## Solution

- Funds secured using algorithmic escrow

## Major Participants

- Nadex, Bats, CME



# Insurance + Hedging



## Problem

- Actuarial work is highly specialized, expensive, and localized
- Insurance payouts can be slow and tedious for both the insurer and insured

## Market Opportunity

- Dynamic instruments for hedging individual or company risks

## Solution

- Actuarial work can be crowdsourced using Gnosis to elucidate the probability of risk events occurring
- Smart contracts can enable automated payouts for well-defined insurance policies

## Major Participants

- Large insurers
- OTC contracts

# Information



## Problem

- Limited options to incentivize aggregation of accurate information

## Market Opportunity

- Unprecedented information economies driving AI-dominated information arbitrage
- Sale of information related to AI optimizations and IoT sensor data

## Solution

- Prediction markets and initial subsidies. Economic incentive provided for accurate information

## Major Participants

- New Market

# Governance



## Problem

- Decentralized governance requires a lot of overhead and is typically slow to make decisions
- Polling lacks precision and “skin-in-the-game”

## Market Opportunity

- White-labeled forecasting and decision-making tools for all types of organizations
- Generalized governance contracts for dApp ecosystem

## Solution

- Market-based governance

## Major Participants

- New Market

# Incentivization



## Problem

- Direct incentivization for action may not be possible in some circumstances

## Market Opportunity

- Open incentives to crowdsource any action

## Solution

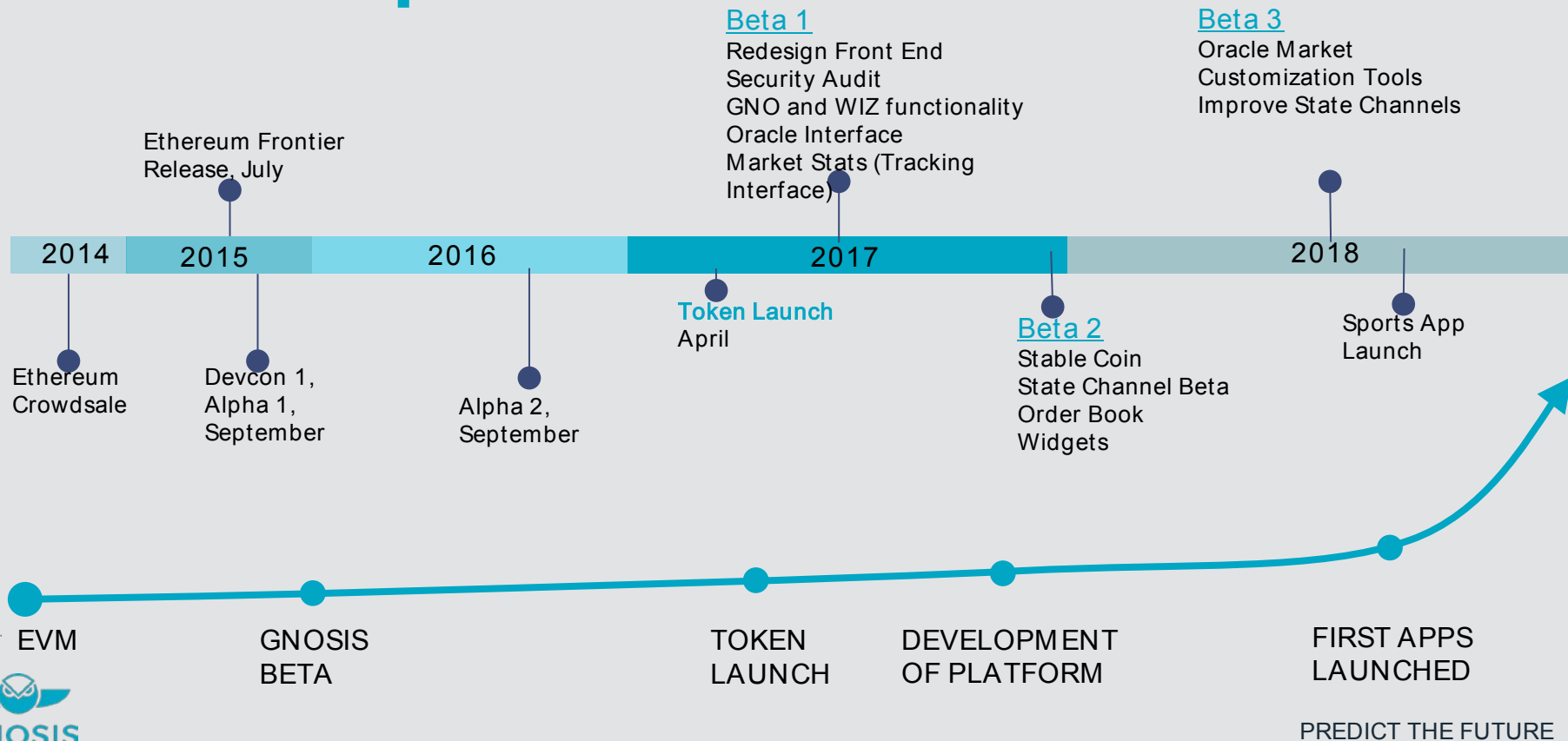
- Prediction markets can be created to incentivize action using a market payout

## Major Participants

- New Market

# Going to Market

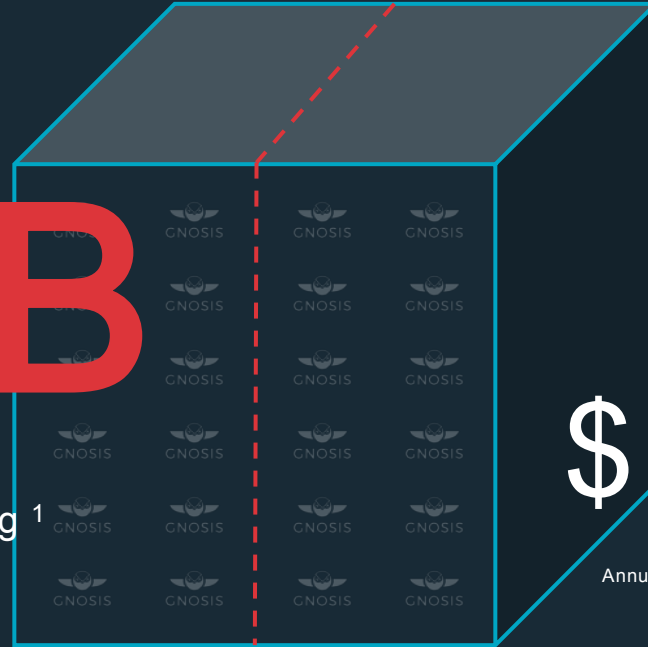
# Roadmap



# Market Size

\$36B

Online Sports Betting <sup>1</sup>



\$18B

Annual securities commissions <sup>2</sup>

<sup>1</sup> <http://www.statista.com/topics/1740/sports-betting/>

<sup>2</sup> Chicago Mercantile Exchange accounts for approximately \$3B

# Competitive Matrix

	Incumbents	Gnosis
<b>Betting</b>	<ul style="list-style-type: none"><li>• Siloed</li><li>• Centralized</li><li>• Limited jurisdictions</li></ul>	<ul style="list-style-type: none"><li>• Open platform</li><li>• P2P</li><li>• Universal access</li></ul>
<b>Financial + Insurance</b>	<ul style="list-style-type: none"><li>• High marginal cost</li><li>• Inflexible</li></ul>	<ul style="list-style-type: none"><li>• Near zero marginal cost</li><li>• Unlimited flexibility</li></ul>
<b>Governance</b>	<ul style="list-style-type: none"><li>• Limited to surveys, feedback, voting</li><li>• Lacks "skin in the game"</li></ul>	<ul style="list-style-type: none"><li>• Futarchy</li><li>• Market-based governance will be critical to DAOs and other decision-making</li></ul>



# Competitive Matrix cont.

	Augur	Gnosis
Oracle Design	<ul style="list-style-type: none"><li>• Uses decentralized oracle</li><li>• Slow</li><li>• Limited to Google results</li><li>• High cost</li></ul>	<ul style="list-style-type: none"><li>• Uses oracle market (centralized by default with decentralized backstop)</li><li>• Fast</li><li>• Low cost</li><li>• Flexible</li><li>• Extensive state channels work and partnerships</li></ul>
Technical Development	<ul style="list-style-type: none"><li>• Current focus on front-end and oracle</li></ul>	<ul style="list-style-type: none"><li>• Oracle and stablecoin partnerships</li><li>• MetaMask and uPort integration</li><li>• Focus on being a platform for prediction market applications.</li><li>• Backed by ConsenSys</li></ul>
Focus + Support	<ul style="list-style-type: none"><li>• Focus on being a central hub for markets.</li></ul>	



PREDICT THE FUTURE



Focus +  
Support

# Key Activities

Gnosis has been live on the Ethereum Mainnet for over a year

Described by Vitalik as most advanced DApp currently live on main net in early 2016 interview

Substantial work has been performed toward state channels and scaling.

By implementing state channels into its software architecture, Gnosis is pioneering one of the most important tools for scaling DApps on the blockchain

HunchGame is first example custom App built on top of the Gnosis platform

Ramping up community engagement efforts. Massive growth in social media following.

Gnosis is actively pursuing high profile partnerships within Ethereum ecosystem, financial sector, and other fields.

# Go To Market

Form partnerships with third party application developers

Partnership with **Cultivate Labs** to offer real money markets

Establish partnerships with sports betting applications being built on Gnosis

Growing interest in futarchy solutions

Awarded research grant from the Ethereum Foundation in 2015

Leverage **ConsenSys** brand in establishing relationships

100+ personnel on five continents with reach in nearly every industry

Social media integrations

Bet from Twitter

Facebook and Slack bots

## COLLABORATION PIPELINE



CONSENSYS

GUGGENHEIM

SMARKETS



CULTIVATE LABS



WOLFRAM



PREDICT THE FUTURE

# Key Partnerships



**WEDBUSH**

Gnosis has an ongoing partnership with Wedbush Securities to pilot a stock fundamentals forecasting app. This partnership grants direct access to over 2,000 buy side analysts.



**RAIDEN**

Raiden Network is a proposed extension to Ethereum which scales-out asset transfer capacity. It's inspired by the Lightning Network which leverages off-chain asset transfers to carry out the vast majority of transactions. Our development team works closely together with the Raiden team to make Gnosis the first decentralized prediction market to scale to thousands of markets.



**REALITY KEYS**

The Reality Keys™ service provides automated and human-verified data designed to enable a new generation of automated, trust-free information services. We work together with Reality Keys on oracle standards and integrate Reality Keys into our Oracle Platform to enable anyone to easily create markets for any topic they like.

# Token Launch

# Ask

Our token launch target is \$12.5M, to be used for:

Platform development (5.25M)

Oracle Market, Customization Tools, Off-chain, Interfaces, new Market Mechanisms  
template apps for finance, betting, insurances, governance

Legal (500k)

Incorporation, Licensing, Legal Opinions

Marketing and business development (1.5M)

Subsidies, advertising, location and market specialists

Application development

Investments in applications focusing on market and Gnosis applications (5.25M)

# Token Use

Token launch participants purchase Gnosis (GNO) tokens, an essential utility to participants on the Gnosis Platform

GNO token holders insert their GNO tokens into a time-locked smart contract which generates Wisdom (WIZ) tokens at a calculated fixed rate

Participants use (WIZ) tokens to pay for market making and participation fees on the Gnosis platform

Fees generated by Gnosis prediction markets will be traded in secondary markets in exchange for GNO

# Token Use



(ETH)

Token Launch



Fixed Supply:  
10 Million GNO tokens.



Alice receives (GNO) tokens based on Final purchase rate.



i)

Store tokens in a wallet



iii)

Deposit tokens to a time-locked smart contract

Gnosis Services (paid)

Alice pays fees on the Gnosis platform with (WIZ) tokens.



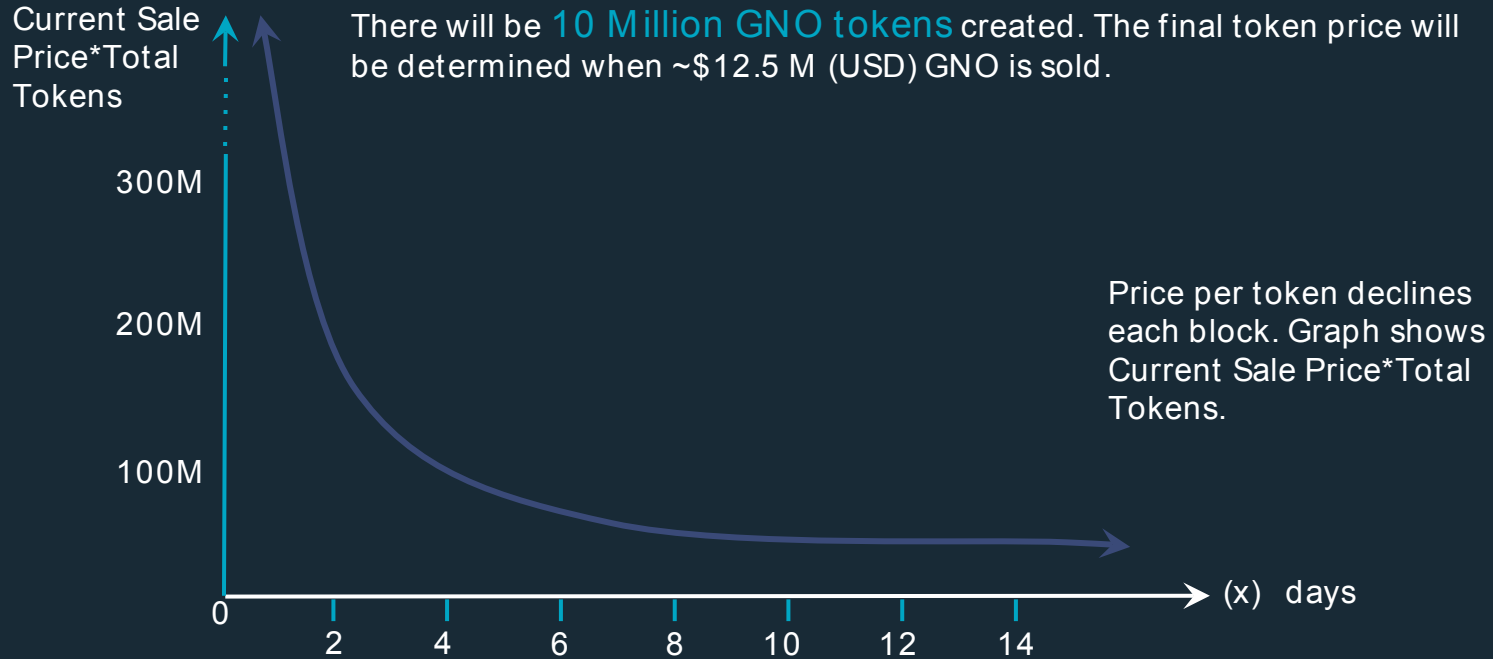
Wisdom tokens (WIZ) are released over-time relative to amount and time locked in the smart contract.

Gnosis Core (free)

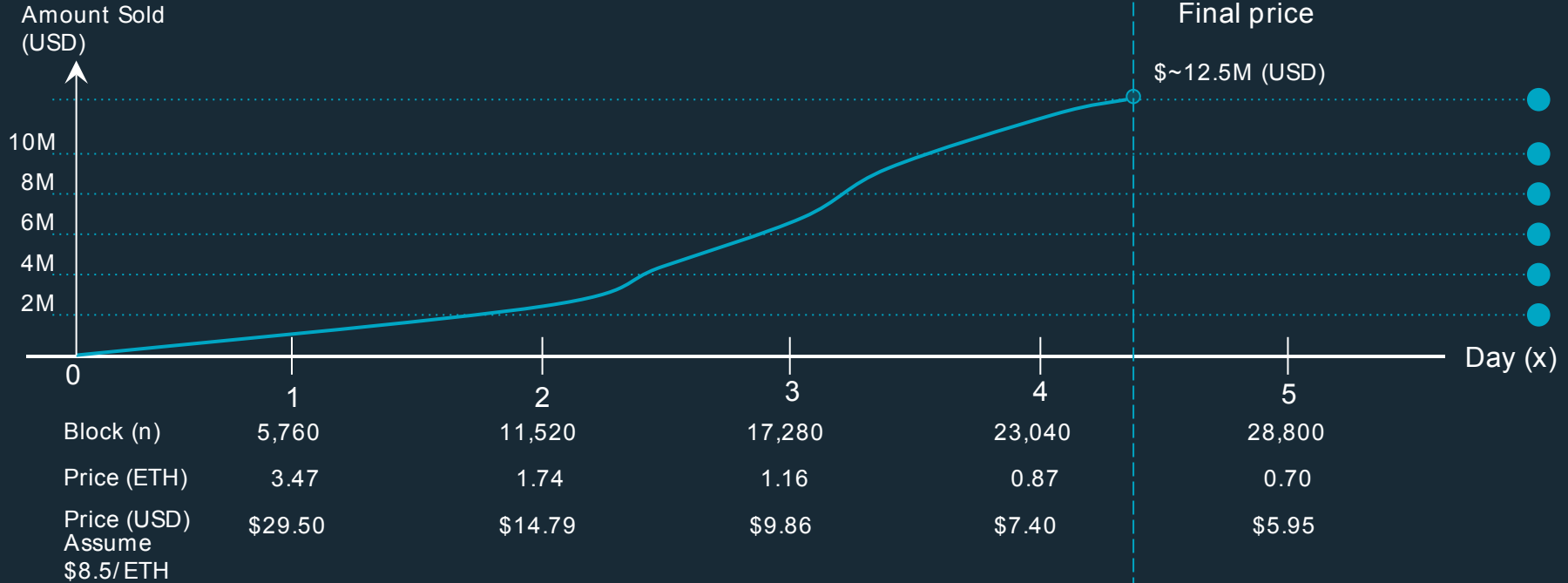
PREDICT THE FUTURE



# Modified Dutch Auction



# Token Launch Timeline (example)



# Leadership

# Team



**Martin Köppelmann**  
Founder

- + 10 years dev experience
- + 4 years prediction market experience
- + Thought leader in Ethereum, blockchain scaling through state channels,
- + Over 30 public presentations on blockchain technology



**Stefan George**  
Founder

- + 10 years dev experience
- + 4 years crypto experience
- + 4 years prediction market experience
- + 4 years product manager
- + Startup and enterprise experience



**Matt Liston**  
Strategist

- + Cofounded Augur
- + 4 years crypto prediction market experience



**Denis Granha**  
Full Stack Engineer

- + 5 years dev experience
- + 1 year crypto experience
- + Startup and enterprise experience

# Advisors



**Vitalik Buterin**  
Advisor

+ Co-founder of Ethereum



**Joe Lubin**  
Board Member

+ Founder of ConsenSys  
+ Co-founder of Ethereum



**James Slazas**  
Advisor

+Director of Capital Markets,  
ConsenSys Enterprise  
+ 15+ years financial markets  
experience  
+ Co-founded hedge fund  
managing portfolio of life  
settlements



**Robin Hanson**  
Advisor

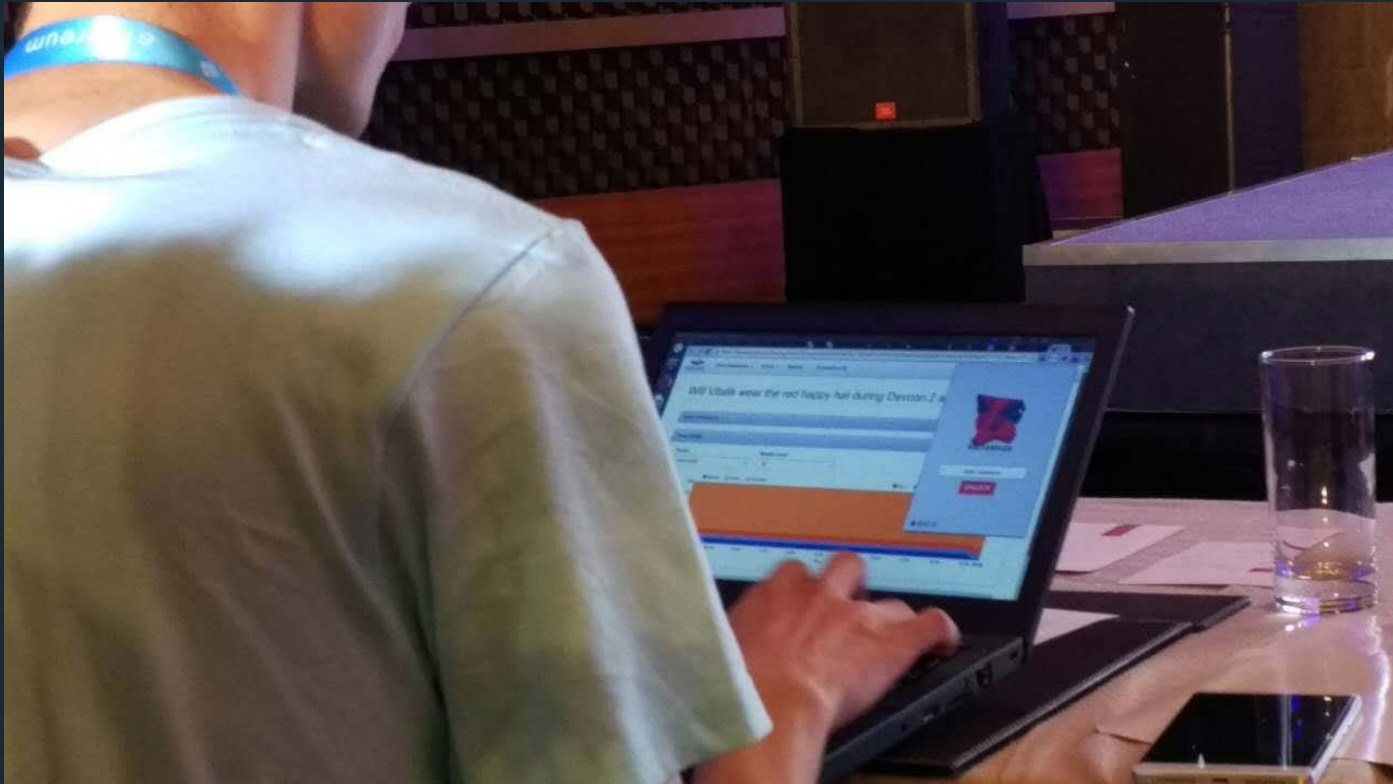
+associate professor of  
economics at George Mason  
University  
+ proposed system of  
government called 'futarchy'  
+ leading researcher around  
prediction markets



**Jason Trost**  
Advisor

+ Founder and CEO of  
Smarkets (>\$1.5B betting  
exchange)

# Vitalik trading the Gnosis Happy Hat incentive market at Devcon2!



# Contact

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