

# BUGMARK

A Blockchain Futures Market for Software Issues

September 18, 2017

# AGENDA

- Introducing BugMark
- Our Blockchain Methodology

# BUGMARK TEAM

- Don Marti: the Visionary
- Rich Bodo: the Evangelist
- Malvika Rao: the Economist
- Andy Leak: the Developer
- Zvi Boshernitzan: the Brain

Plus: our **design team** and **emerging community**

# OUR HISTORY

- 20 years of open-source
- July: research starts
- Aug: first prototype
- Sep: first presentation
- Oct: first show
- Nov: public launch

# OUR PRODUCT

BugMark is a Blockchain Futures Market for Software  
Issues

# OUR VALUE

BugMark provides price signals that direct resources to areas of greatest value.

No other method is more effective or efficient.

# FOR USERS

to communicate needs and priorities

# FOR DEVELOPERS AND MANAGERS

to identify highest-value fixes



**FOR SECURITY PROFESSIONALS**

to get advanced warning of vulnerabilities

# A NEW APPROACH

Unlike **bug bounty systems** : tradable contracts that reach a market price

Unlike **kickstarter campaigns** : fine-grained contracts attached to individual GitHub issues

Unlike **social signals** (like public complaints) : a positive outlet for express priorities and support developers

# TWO TYPES OF FUTURES CONTRACTS

Reward Contracts for fixes

Forecast Contract for information

# EXAMPLE: DOCUMENTATION FIXES

Workflow and Diagram TBD

# EXAMPLE: PKI VULNERABILITY

Workflow and Diagram TBD

# THE BUGMARK ECOSYSTEM

A core market that supports many domains

# HOW IT WORKS

- Pull issues from trackers
- GitHub first, others later
- Trade execution on blockchain

# WHY BLOCKCHAIN?

- a neutral trusted platform
- transact in real currency
- extensible



# A NEW ECONOMIC MODEL

## Theory of the Firm

- Command and Control
- Markets
- Peer Production
- **Peer Production with Price Signals**

# A BETTER ECOSYSTEM

- outlet for users
- compensation for
- open-source health metrics

# OUR INTENTION

- world's best issues futures market
- a profitable company to maintain the core
- a stable home for employees to show their best
- a supportive ecosystem with thousands of participants

# WE NEED YOUR HELP!

- funding
- contributors
- development partners
- leadership roles

# PART 2

## OUR BLOCKCHAIN METHODOLOGY

# BACKGROUND

- Blockchain is new and hard
- The developer community is small
- We want to build a developer community
- We have an opinion on best practice

# INCREMENTALISM

- Leverage existing skills
- Prototype with tools you already know
- Extend into the blockchain world bit by bit

# EVENT SOURCING / CQRS

- Use traditional tools - with one tweak
- All database writes are done with **commands**
- Commands emit events
- Events are the **source of truth**



# DIAGRAM

TBD

**WAT??**

Out of time :-)

