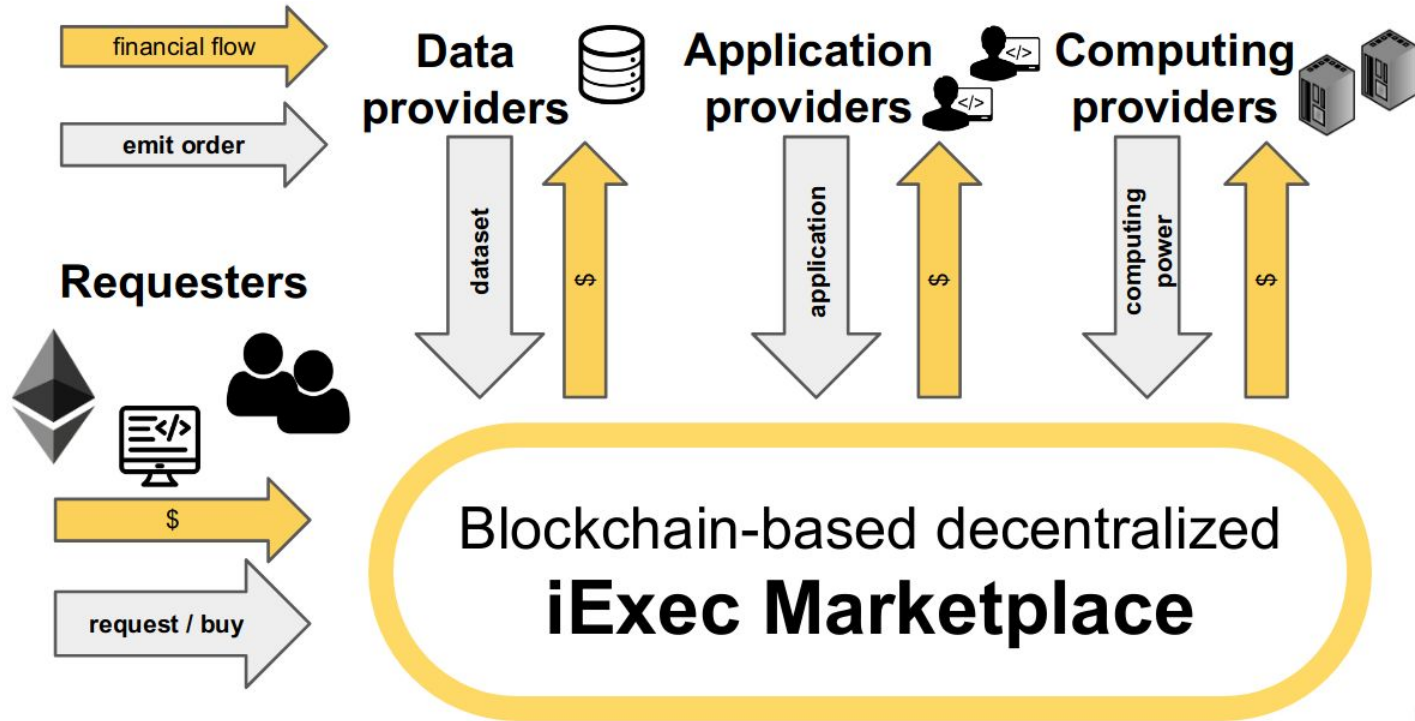# Incentivization of correct behavior in a decentralized computing marketplace

04/07/2024
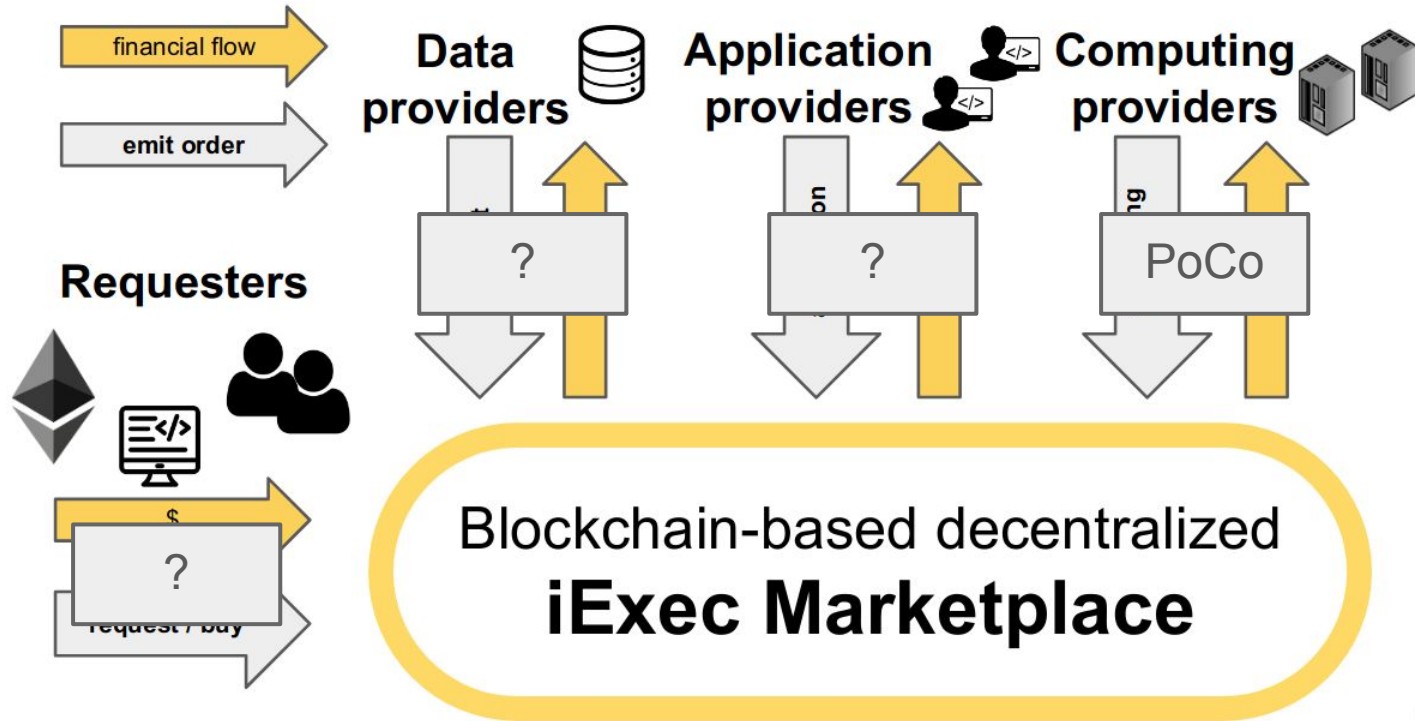
Henry MONT
Intern – DRIM

Context: The iExec decentralized marketplace

Identified problem

financial flow

emit order

Data providers

Application providers

Computing providers

Requesters

request / buy

? ? PoCo

?

Blockchain-based decentralized **iExec Marketplace**

⇒ Currently no incentive mechanisms for Requesters, Data providers and Application providers.

Proposed solutions

To ensure the system's reliability, it must incentivize good behavior from all actors.

We need to:
- Detect when any actor engages in wrongdoing.
- Punish faulty behaviors.
- Reward good behaviors.

Quality Assessment

Reputation

Staking

Solutions comparison

Quality Assessment

➕ Identify faulty actor.

➕ Objective Evaluation.

➕ Early Detection.
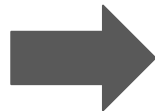
➖ Not one size fit all.

➖ Difficult to automate.

Staking

➕ Financial incentive.

➕ Accountability.

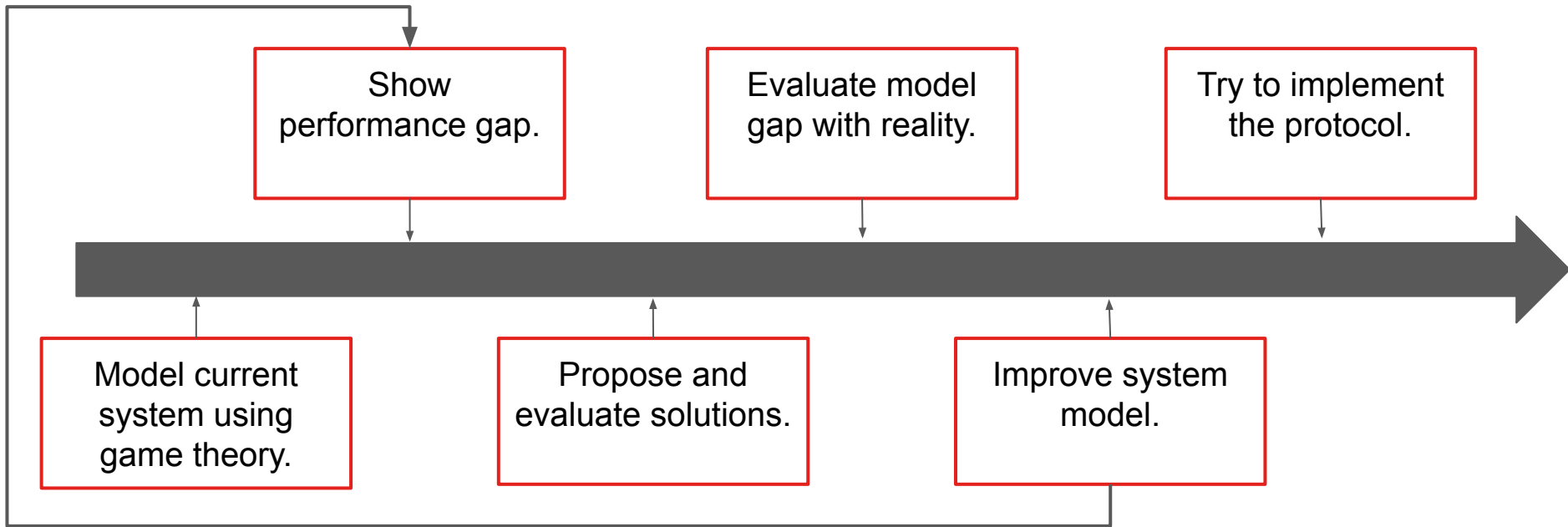➖ Capital Requirement.

➖ Risk of Loss.

➖ Who is to blame ?

Reputation

➕ Behavioral Incentives.

➕ Accountability.

➖ Reputation Manipulation.

➖ Initial Bias.

➖ Who is to blame ?

➡ Would blaming everyone work ?

Planning

Smart Contract

- Automated Agreements
- Trustless Transactions
- Transparency
- Immutability

PoCo

- Consensus Mechanism
- Incentives for Workers
- Staking System
- Outcome-based Payments