

FuturICT 2.0 | Challenge 1 – Token Creator

Project *E-mine 1*

Recycling Electronic Devices via Blockchain: Part 1 – Token Creation



Team

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Code repositories:

<https://github.com/ETHBiots2018/E-Mine1>
<https://github.com/e-mine1/GenesisApp>

Challenge

No lifetime tracking and lack of incentive to recycle electronic devices

Approach/Solution

“E-mine” blockchain network

Device is manufactured:
create Asset & Reward Token

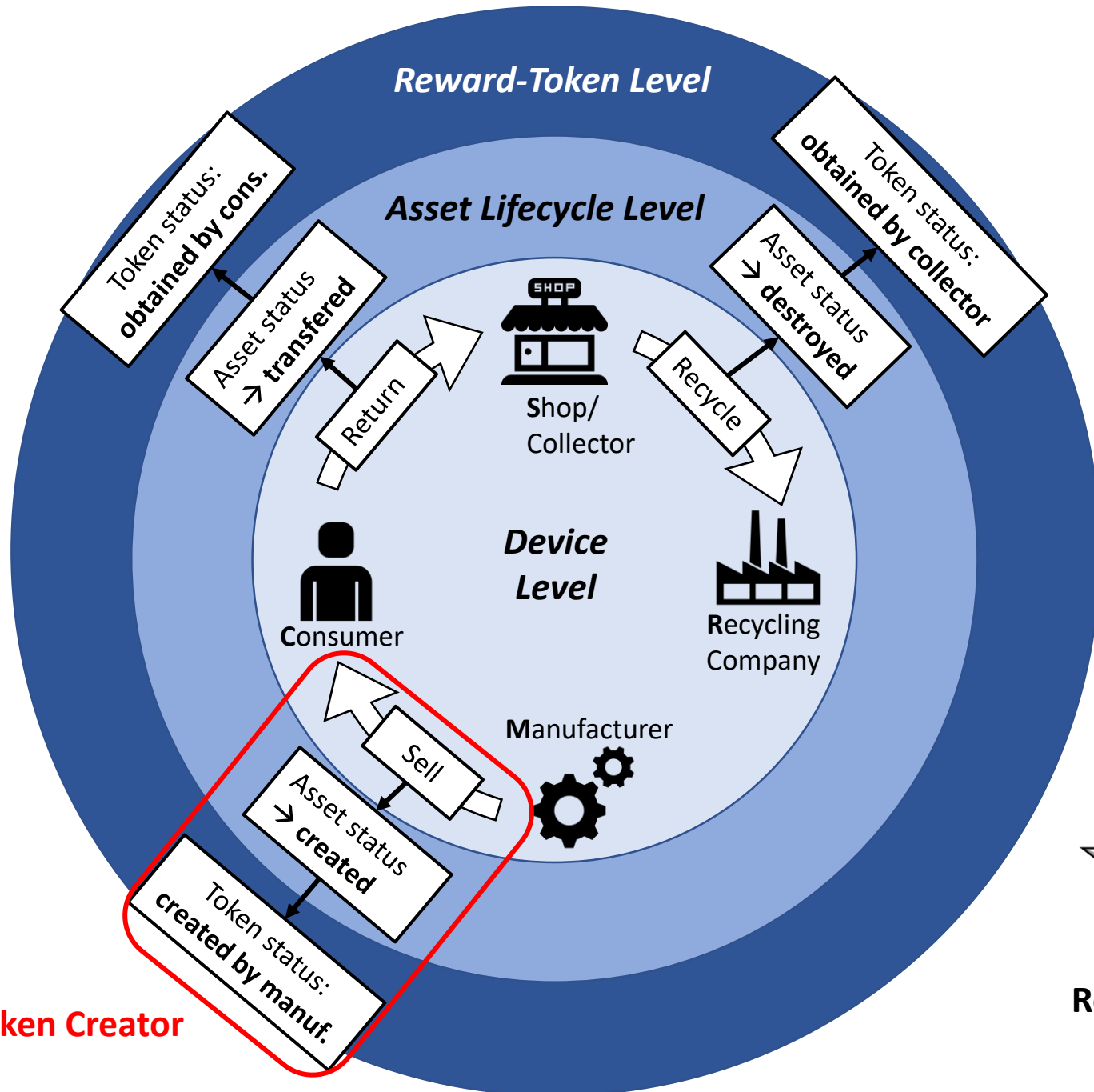
Track Asset & Token via
blockchain

Consumer returns device: obtains
Token

Collector sends device to
Recycler: obtains Token

Manufacturer finances Tokens in
exchange for recycling info

Focus of this project: Challenge 1 - Token Creator



Reward-Token



Disruption Potential

Outcomes

- Environmental: tracking and increased recycling of electronic waste, a step towards *circular economy*
- Social: rewards for responsible behavior

Changes to the status quo

- For society: rewards for users
- For electronics ecosystem:
 - Inclusion of collection centers and recyclers in decentralized networks
 - Creation of device lifecycle data

Open Challenges

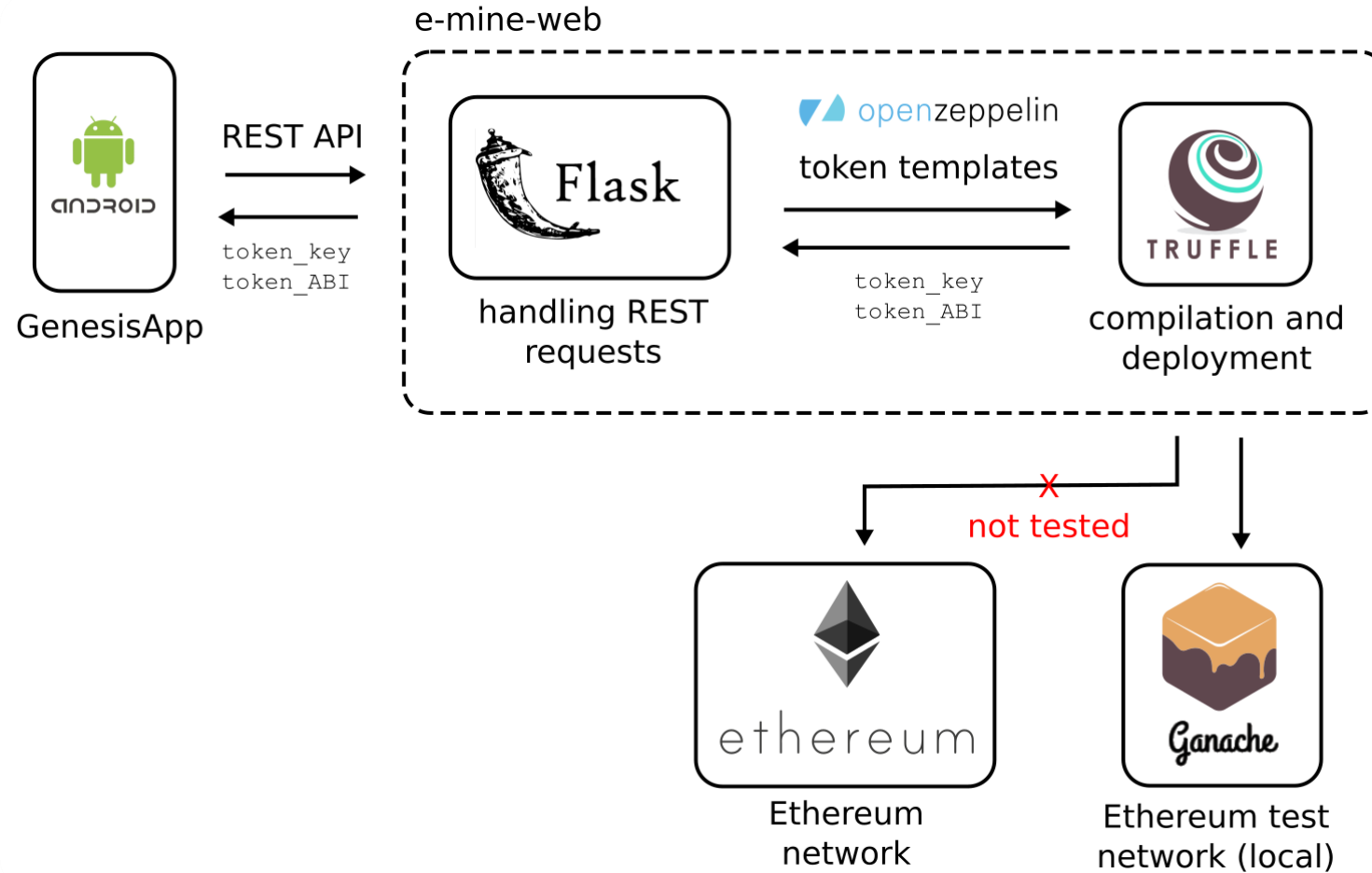
Potential negative outcomes: accumulation of tokens in the system

Unresolved question:

- material link between *recyclers* and *manufacturers* still missing
- No incentive for recycling devices already in circulation



E-mine web architecture





Demo

Create a token, now!

<https://drive.google.com/open?id=1RWHJsogQhbkXHMbemtDEYAW6qY5bxeNL>