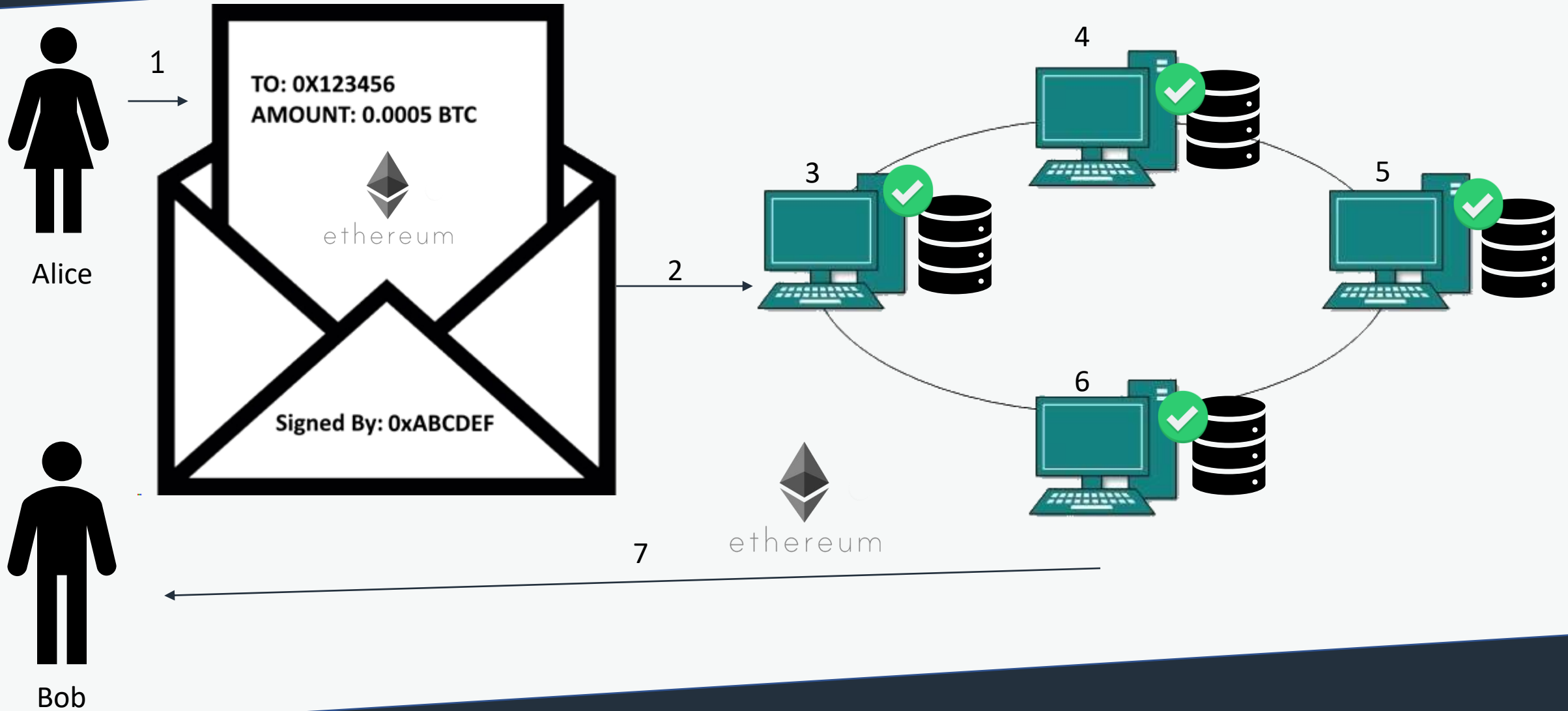


Crypto - Recap



Transaction

to: 0xabc012def567....

value: 0.005 ETH

fee: 0.000000034 ETH

payload: 01110101010....

signed_with *from*_privkey

- Transaction fee is chosen by sender
- When submitted, transaction is inserted in a common pool, waiting to be validated
- Nodes arbitrarily choose the transactions to be validated by its fee
- **Payload: optional multi-purpose field**

SmartContract

Send your money to this wallet.
It will send you back at 12:00 AM



Marco Vasapollo

Software Engineer

C. E. O. & Founder @ MetaRing

C. T. O. @ Risepic

Member of the Scientific Board @ Decentra

Blockchain Solutions Engineer & Advisor

<https://metari.ng/linkedin-marco>



<https://www.metaring.com>

SmartContract

- Receives and sends back data (money and/or info)
- Multiple functionalities
- “Wallet of a robot”
- Custom **behavior** to blockchain



solidity



ethereum

HumanStandardToken.sol

```
29     Some wallets/interfaces might not even bother to look at this information.
30     */
31     string public name;           //fancy name: eg Simon Bucks
32     uint8 public decimals;       //How many decimals to show. ie. There could 1000 base units w
33     string public symbol;        //An identifier: eg SBX
34     string public version = 'H0.1'; //human 0.1 standard. Just an arbitrary versioning scheme.
35
36     function HumanStandardToken(
37         uint256 _initialAmount,
38         string _tokenName,
39         uint8 _decimalUnits,
40         string _tokenSymbol
41     ) {
42         balances[msg.sender] = _initialAmount; // Give the creator all initial tokens
43         totalSupply = _initialAmount; // Update total supply
44         name = _tokenName; // Set the name for display purposes
45         decimals = _decimalUnits; // Amount of decimals for display purposes
46         symbol = _tokenSymbol; // Set the symbol for display purposes
47     }
48
```

SmartContract

- Like every OOP language:

- Ints, strings, bools...

+

- Custom structures

+

- Turing-Complete

=

Run every type of software

- Thanks to digital assets:

- Pay-per-use

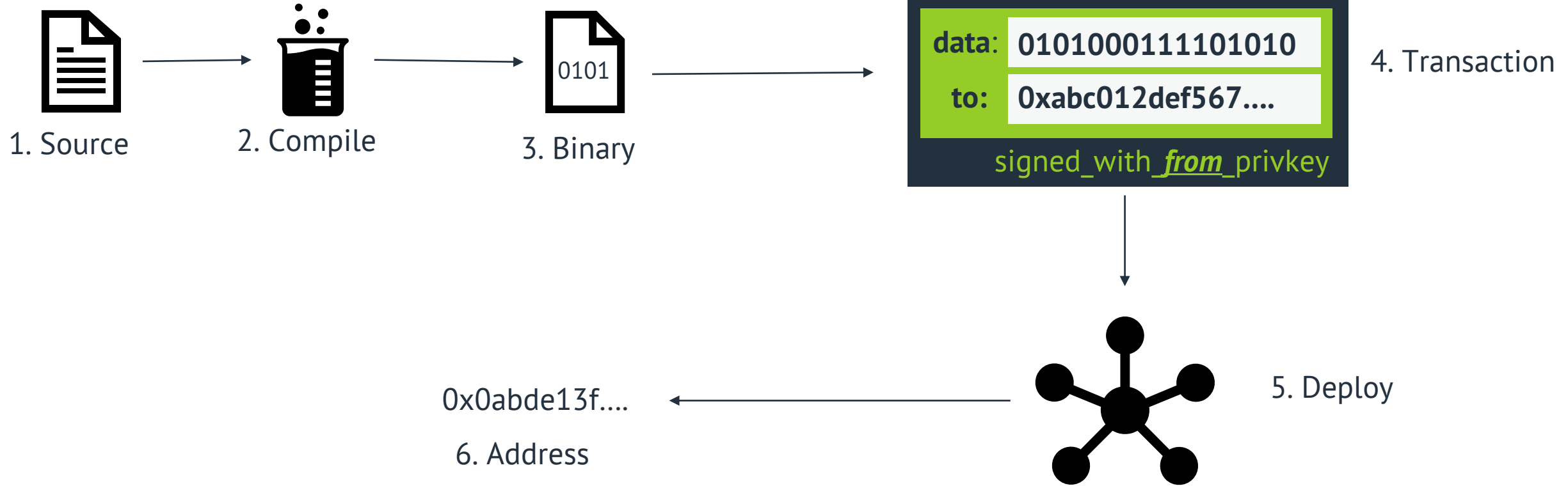
+

- Global distribution

=

Free Serverless Infrastructure

How it works



SmartContract



bathroom-light = off

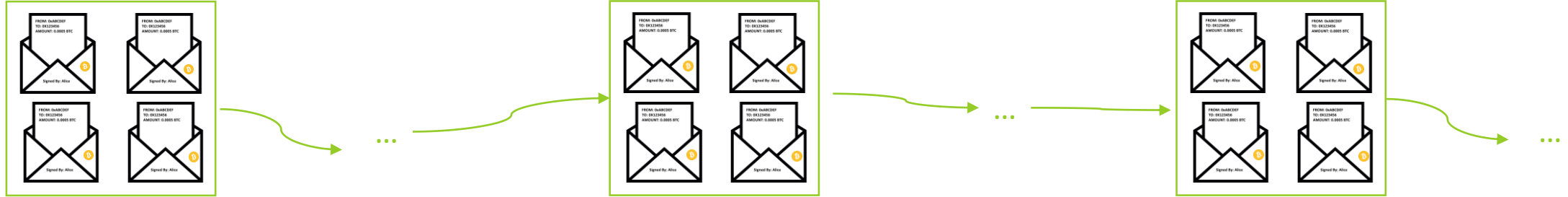
hall-light = off

meeting-r-light = off

data: bathroom-light = on
to: 0xabc012def567....
signed_with from_privkey

data: hall-light = on
to: 0xabc012def567....
signed_with from_privkey

data: Meeting-r-light = on
to: 0xabc012def567....
signed_with from_privkey



bathroom-light = on
hall-light = on
meeting-r-light = on

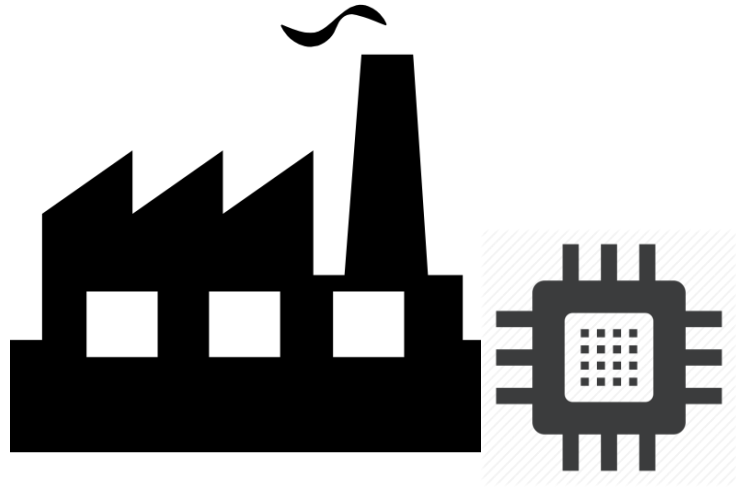
SupplyChain



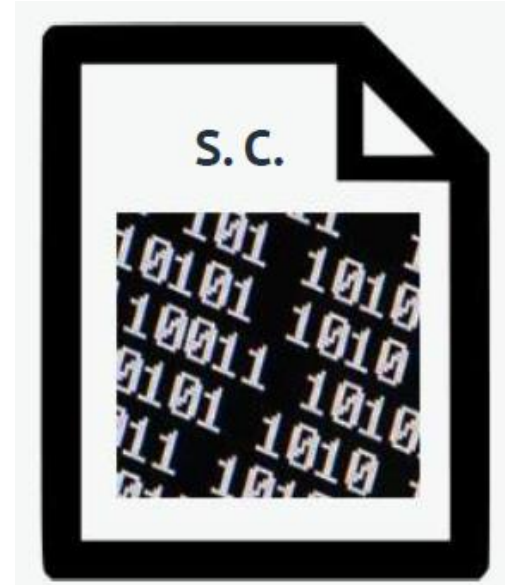
ethereum



SupplyChain



Industry 4.0

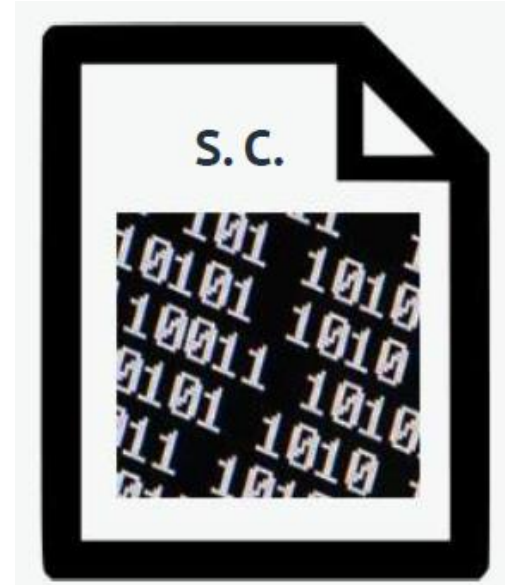


Constraint respected

SupplyChain

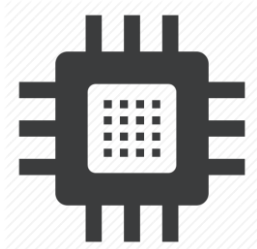


ethereum

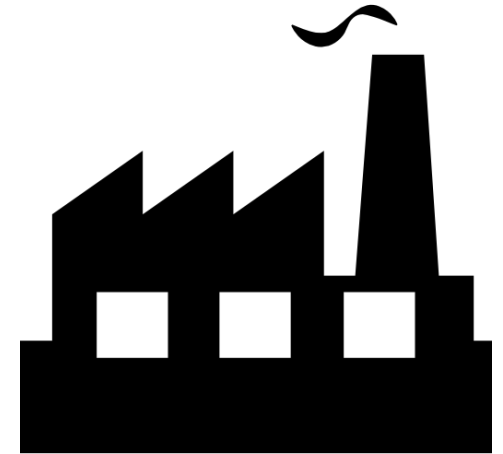


Constraint NOT respected

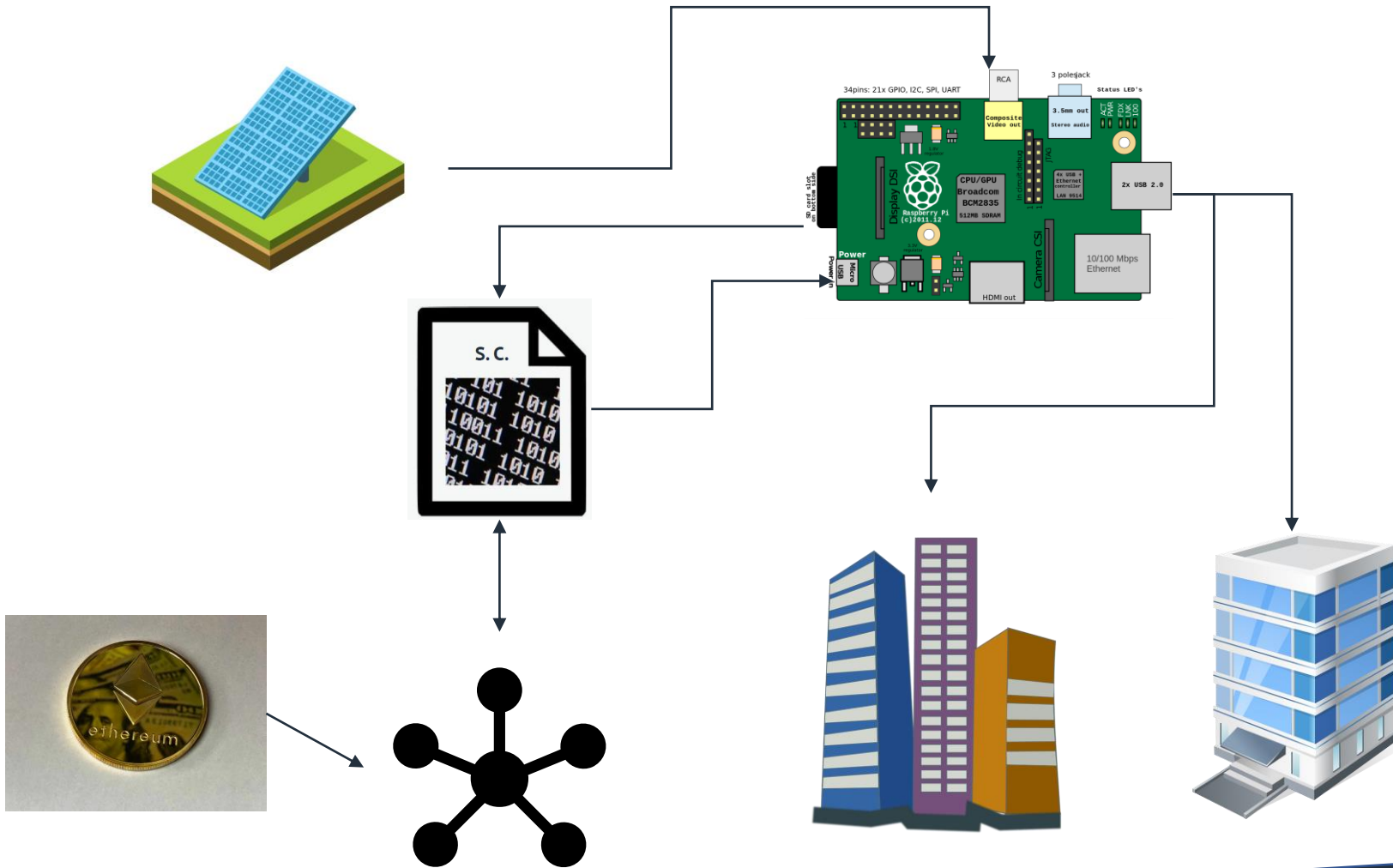
SupplyChain



Industry 4.0



Energy



Brooklyn Microgrid – April 2016

1. Raspberry Pi publishes on SmartContract the amount of energy that can be sold
2. People pay on the blockchain
3. SmartContract Triggers the event
4. RPI Redirects Energy to the correct place

Supply Chain

- Brand Installs SmartContract
- Brand insert transactions about products

??????

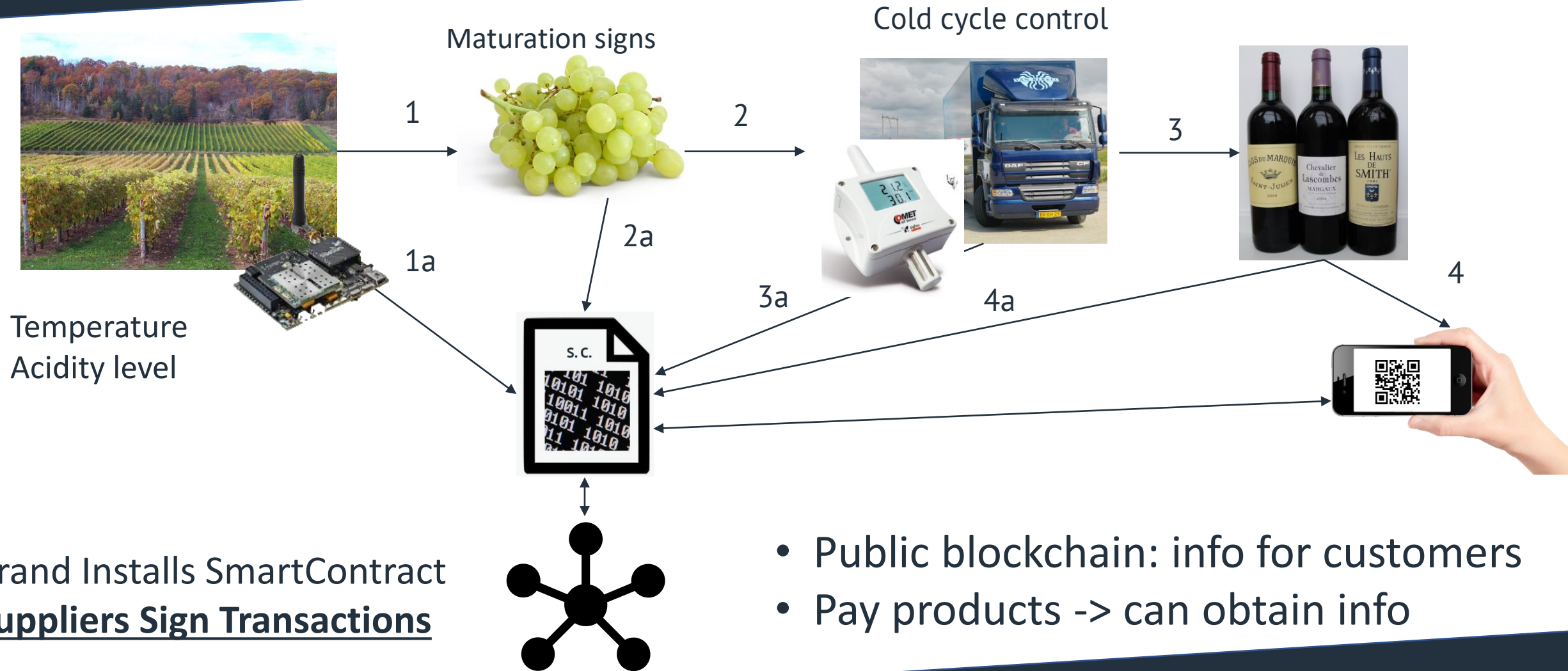
“My chicken is the best, trust me!” – Signed by Carrefour

Carrefour: il pollo Filiera Qualità tracciato con tecnologia blockchain

Alessandra Bonaccorsi 11 ottobre 2018



Supply Chain

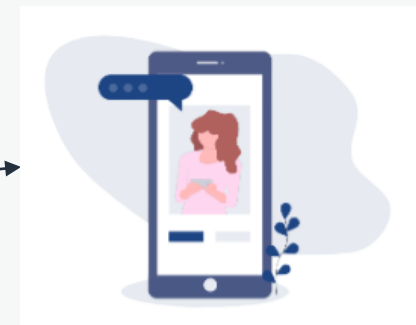
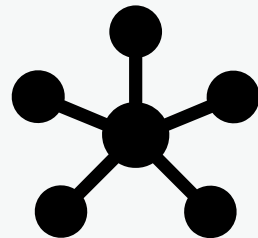
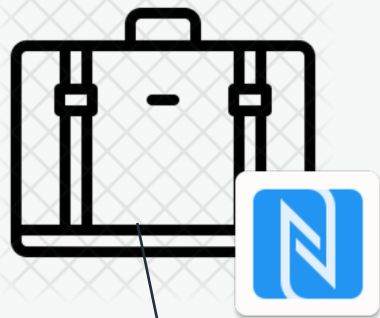


Critical points

- Certified devices are the best way to avoid bad data introduction
- However, human beings do certification
- Solution: hardware check made by **Decentralized Artificial Intelligence**
- **A very long way...**
- **Support from institutions**

10 10
one object one owner

Physical and Digital
Souls
of objects finally
MERGED Together



SmartContract keeps track
of the Ownership

- Manage Your objects
- Receive support and special offers **DIRECTLY** from the producer

Startup Funding



BRIDGE



Investors bid on Incubators through SmartContracts

Incubators hold Startups shares

Investors receives tokens, immediately liquidated

SmartContract unlocks money for Startups basing on progresses (analyzed through AI-Oracles)

Startup Exit -> Shares sells -> Incubators buy Investors' tokens and **burn them** to raise up the value

Investors **diversify risks**

Early-Stage startups receive **funds**

Incubators are **guarantee** of quality

Decentralized Finance

Totally **Digital, Liquid, Decentralized and Anonymous**

New ways to approach the world of work

Decentralized Autonomous Organization (DAO)

No need of a company

Thanks to Censorship-Resistant StableCoins

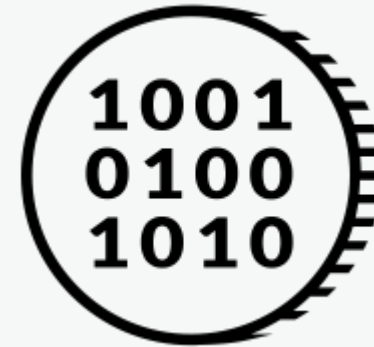
Maker DAO



LOCK
10 ETH
1000 \$



Can **convert** at least
70%



700 DAI

1 ETH = 100 \$ (**floating**)

1 DAI = 1 \$ (**STABLE**)

Maker DAO



Withdraw
7 ETH
1050 \$



Re-obtain at least 80%



500 DAI

1 ETH = 150 \$ (floating)

1 DAI = 1 \$ (STABLE)

Maker DAO

- Lock and Withdraw percentages are useful to maintain the DAI **stable**
- **MKR** token holders decide for percentages and price Oracle
- **BUY MKR** -> **STAKING** to keep my investments in DAI the more **safe** as possible

**DAI means dollars without floating price -> can use “dollars”
in SmartContracts**



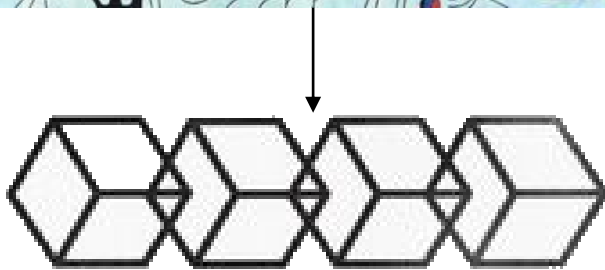
Non-Fungible **Art Order**



REINVENT

Free to use Protocol on the top of ROBE

From brush to blockchain



Explore



Own



Fork



Non-Fungible **Art Order**



REINVENT

DAO – Business based on **DAI**

BUY – Fee in DAI for NAO token holders

SELL – Fee in DAI for NAO token holders **and ARTIST**

RENT – Fee in DAI for NAO token holders, Artist and **OWNER**

COMPANIES build their products (e.g. drawing apps/viewers)

Q&A