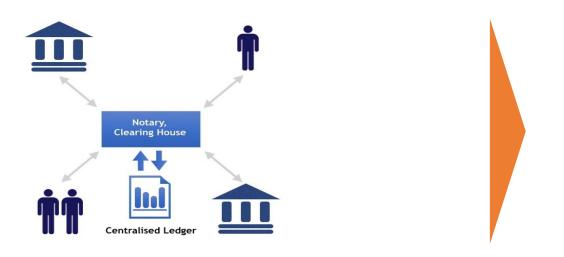


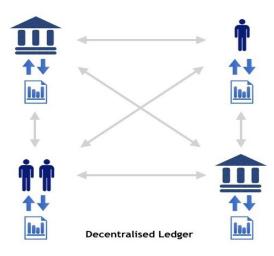
CLI: Blockchain and Climate – THE FUNDAMENTALS

Sven Braden, Climate Ledger Initiative Bonn, November 6th 2017, COP 23



## Blockchain Technology – What is it?





- A new kind of decentralized database;
- Data is not stored centralized but distributed over many participating computers;
- In principle, all transactions in the network are transparent for its participants;
- All participants continuously monitor and record transactions and check database records for coherence;
- This process is automatized through a network protocol (clients) similiar to HTTP.



## Blockchain Technology – Hash

#### **Sven Braden**

e05d4fa99d66be349d973f0d5526a7284a0c561ca1914e7954975c0b31af9a7d

Nothing is decided until everything is decided

9f62f85d500c8d4682c2aa9f8a00d89658be956b3a680dfd370eb1c9bb94e445

Nothing is decided until everything's decided

3f9801bc00d0a466b42c006dbbbf312ce38d1cf515a999bb09f9b556feeb5624



#### BLOCK 1

Transaction USA to Japan 18 ITMOS Transaction
Tuvalu to Monaco
12 ITMOS

Transaction
Switzerland to Mexico
31 ITMOS

B1-Hash: 9f62f85d500c8d4682c2aa9f8a00d89658be956b3a680dfd370eb1c9bb94e445

### BLOCK 2

Transaction
Vietnam to Australia
20 ITMOS

Transaction
USA to Japan
18 ITMOS

Transac' on German, to Peru 2f J ITMOS

B2-Hash: b2c01c8a8a0d9a99f145f099a963021f010dc608a8e992bd1a2aec958b48f32d

**B1-Hash:** 9f62f85d500c8d4682c2aa9f8a00d89658be956b3a680dfd370eb1c9bb94e445

#### BLOCK 3

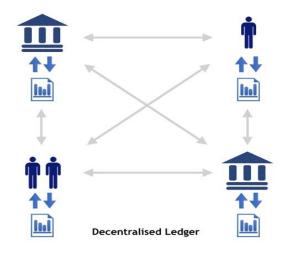
Transaction Italy to Panama 27 ITMOS Transaction
Costa Rica to Canada
2 ITMOS

Transaction
Indonesia to Egypt
12 .fMOS

**63-Hash:** 74fbfe10624a99c4b7ff875bec15cb1b304c6c6f21d154c5fc59e5140024cee4

**62-Hash:** b2c01c8a8a0d9a99f145f099a963021f010dc608a8e992bd1a2aec958b48f32d







## Blockchain Hashes do ensure:

- Immutability
- Trust
- Effective decentralisation by providing means to sync distributed data sets
- Data security on a new level



# Thank you. Vinaka

Sven Braden <a href="https://www.climateledger.org">www.climateledger.org</a>