Programmable Blockchain

ETHEREUM

- **Ethereum was first of it kind,** general purpose programmable blockchain technology.
- **Ethereum was created to** expand blockchain's utility.
- **Visionary:** Vitalik Buterin and Gavin Wood

WHAT ETH LACKS ?

- **Customization:** Tailor-made solutions for unique business requirements.
- **Extensibility:** Continuous improvement and addition of features.
- **Control:** Design your own rules and transaction behaviour.

HYPERLEDGER FABRIC

- **General-Purpose DLT/Blockchain**

- **Highly modular and configurable architecture**

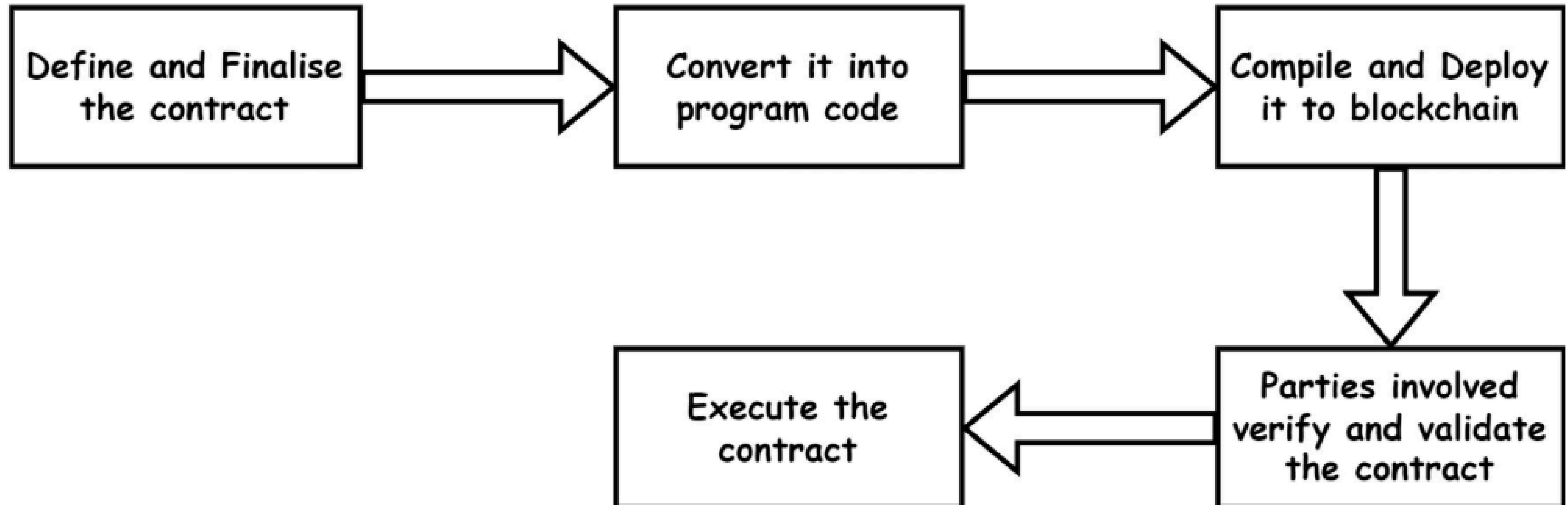- **An enterprise-level, open-source, permissioned blockchain platform.**

Smart Contract

- **Introduced by Nick Szabo in 1994.**

- **Agreement between two or more people in the form of computer program**

- **Business logic / protocol.**

- **Immutable and tamper-proof agreement with no intermediaries / third parties.**

TRADITIONAL CONTRACT

PARTIES   CONTRACT   3RD PARTY   EXECUTION

SMART CONTRACT

PARTIES   SMART CONTRACT   EXECUTION

How Smart Contract Works ?

```
┌─────────────────────┐        ┌─────────────────────┐        ┌─────────────────────┐
│  Define and Finalise│ ═════> │   Convert it into   │ ═════> │  Compile and Deploy │
│    the contract     │        │    program code     │        │   it to blockchain  │
└─────────────────────┘        └─────────────────────┘        └─────────────────────┘
                                                                          ║
                                                                          ▼
┌─────────────────────┐        ┌─────────────────────┐
│    Execute the      │ <═════ │  Parties involved   │
│     contract        │        │ verify and validate │
│                     │        │    the contract     │
└─────────────────────┘        └─────────────────────┘
```

Example

ALICE

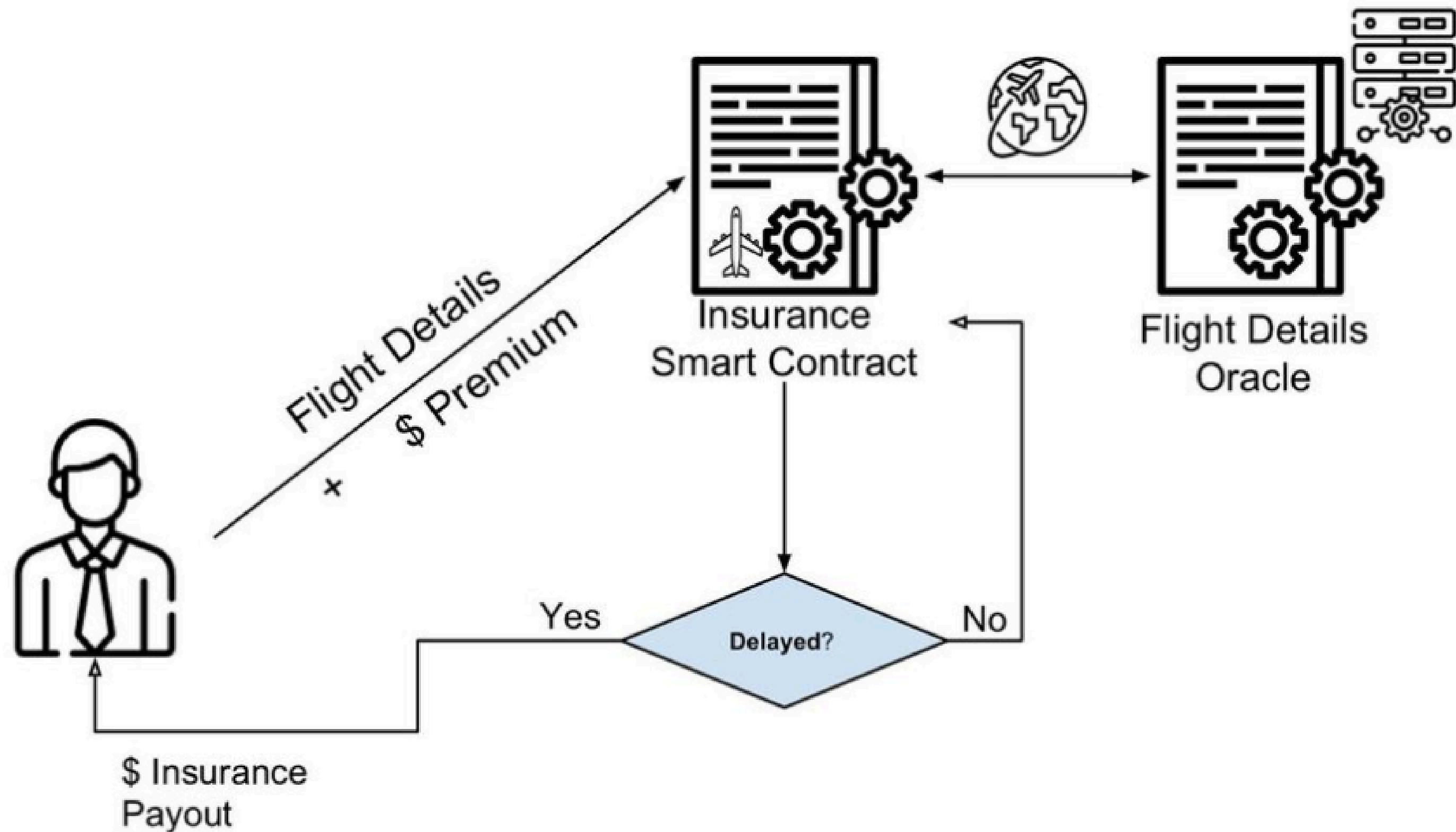Alice travels from Mumbai to New york and needs an insurance of $1000 for this tickets
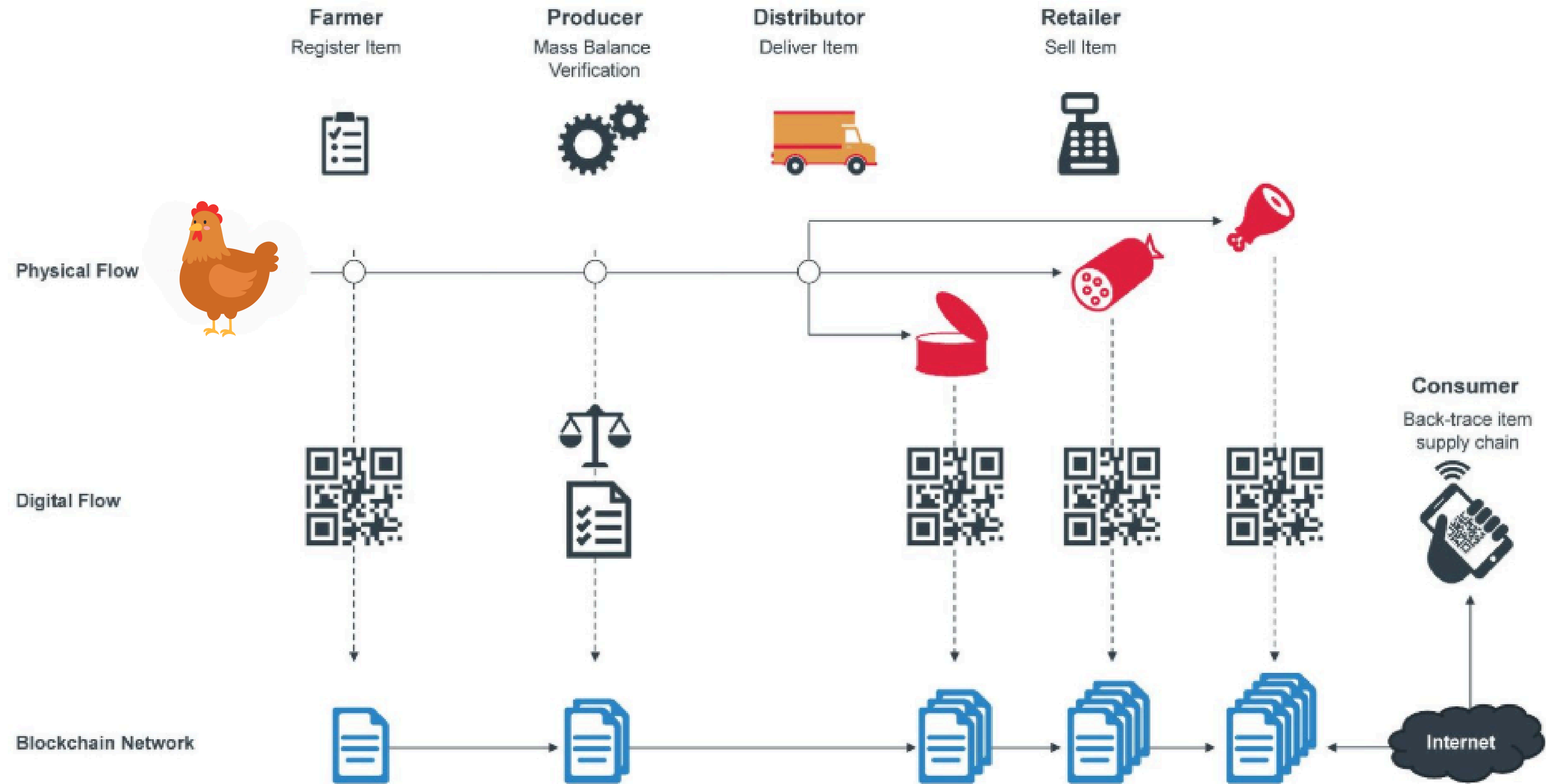
SMART CONTRACT

- Alice deposit $10 and Company deposit $990.

- If the travel is completed successfully, the smart contract releases 1000 to the company's account.

- If the travel is disrupted due to any listed cases, the smart contract releases 1000 to Alice' account.

Flight Delay Insurance Example

Supply Chain Example

Farmer	Producer	Distributor	Retailer
Register Item	Mass Balance Verification	Deliver Item	Sell Item

Physical Flow

Digital Flow

Consumer
Back-trace item supply chain

Blockchain Network

Internet

DeFi

DeFi is an umbrella term for financial services on public blockchains, primarily Ethereum.

- **Open**: Just need a crypto wallet.

- **Pseudonymous**: No KYC, No personal info.

- **Flexible**: Move your assets anywhere at any time, without asking for permission, no waiting time and expensive fees.

- **Fast**: Interest Rates and rewards often update rapidly.

Use Case

TRACE - Fund Traceability for Agricultural Development

In -Production

A tokenized stock exchange platform tailored for small and medium-sized enterprises (SMEs).

In -Development

ATME - Bahrain's Regulated Digital Assets Exchange

In -Production

UNJSPF's Digital Certificate of Entitlement App - Streamlining Pension Verification

In -Production

GalaChain - Blockchain for the Entertainment Industry

In -Production

Indian Railways - Innovating Train Ticketing with NFT Technology

In -Production

Use Case Tracker – LF Decentralized Trust

Discover 200+ use cases built with LF Decentralized Trust technologies in our use case tracker
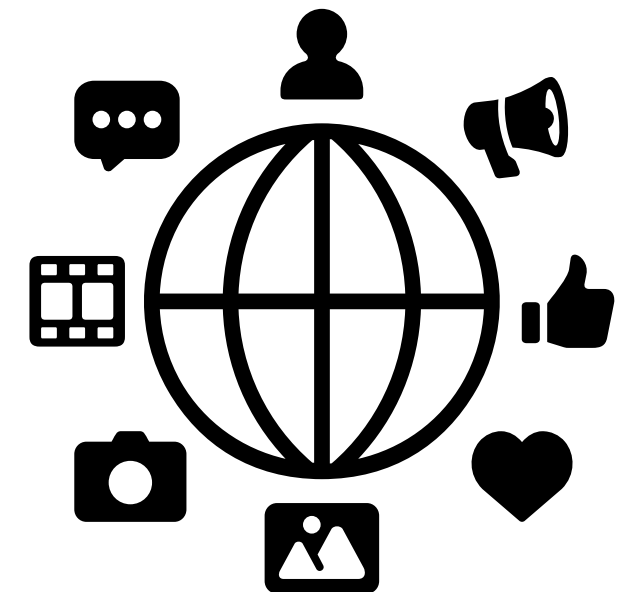
lfdecentralizedtrust.org

Web1

Read only web
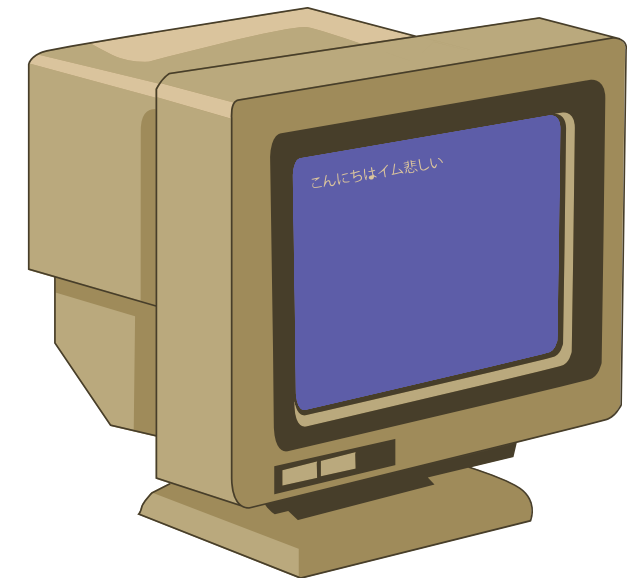
Web1

Web2

Read and Write

Web3
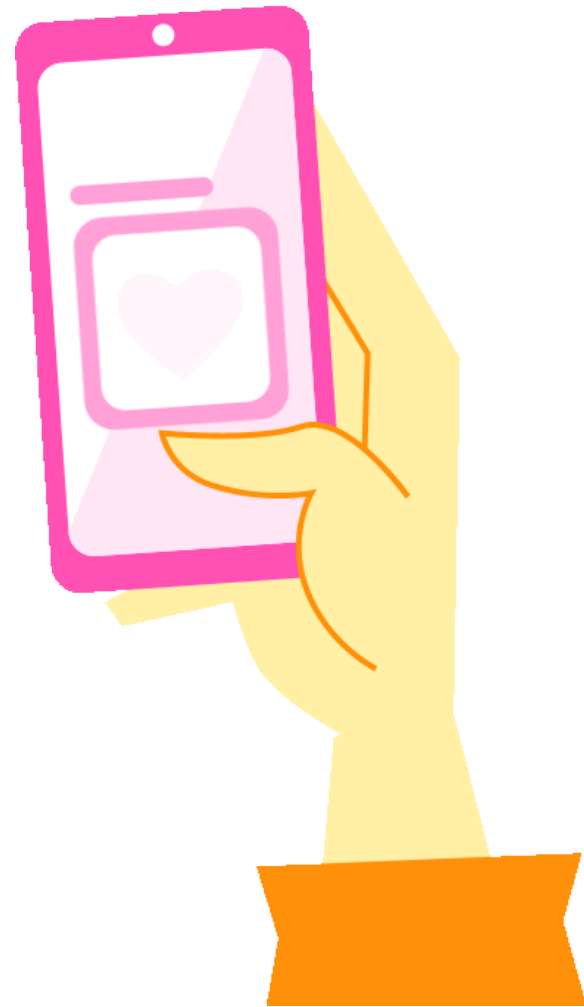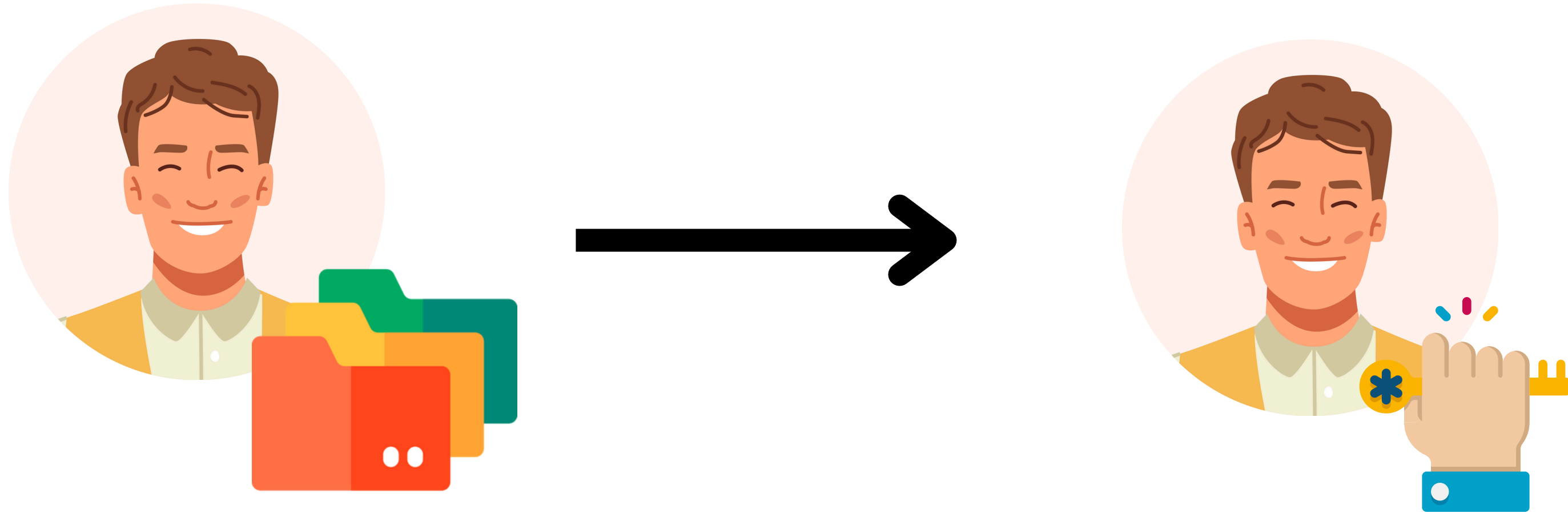
The Future of Internet
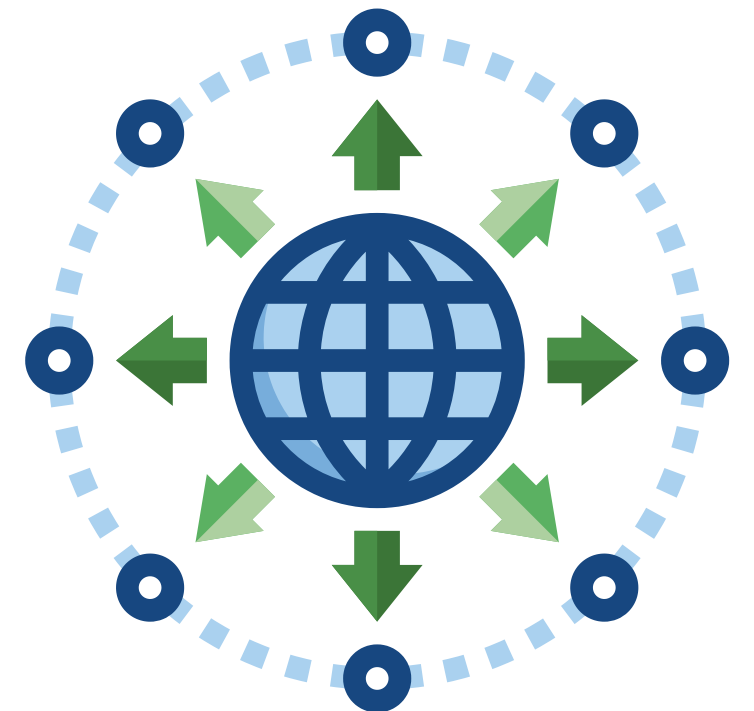
Web3

Read Write Own

Chrome   VS   Brave

Spotify   VS   Audius

Google search   VS   Pre-search

X   VS   Mastodon

Any Questions ?