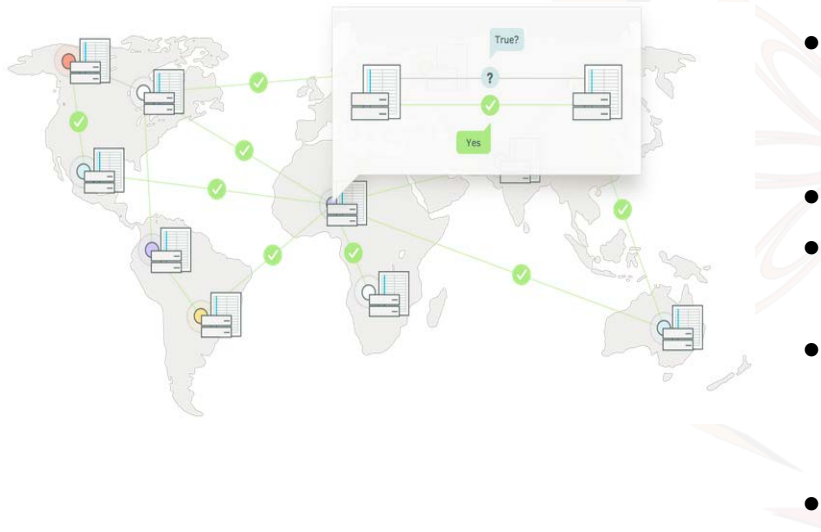# Cross-Border Payments

- But, what qualifies as a currency. In economics, the following criteria must be satisfied:

  - Medium of exchange: Are merchants willing to accept the currency in exchange for goods and services

  - Unit of account: Is it a measure of the real value of goods and services (e.g., would a merchant be willing to accept the same value regardless of relative currency fluctuations)

  - Store of value: A mode of investment
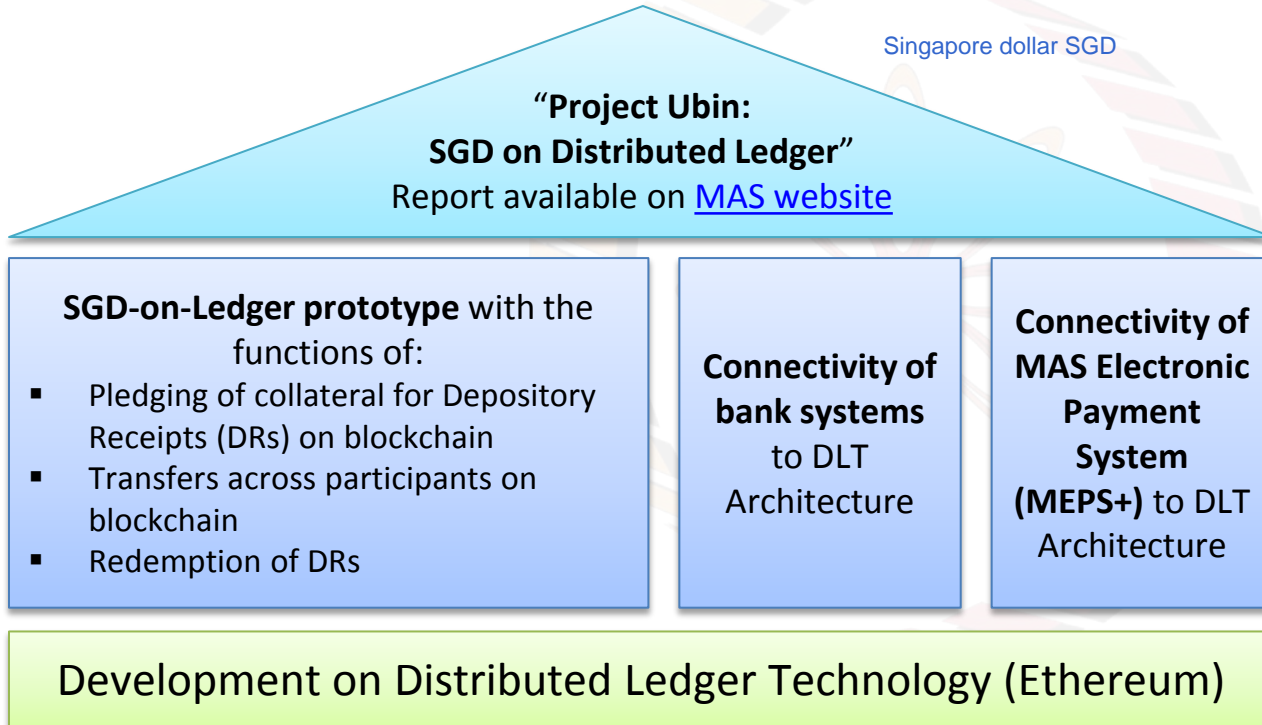
Stellar Protocol and Network

- Decentralized, hybrid blockchain platform with open membership; Lumens as native asset
- Federated Byzantine Agreement (FBA) – quorums

Ripple Protocol and Network

- Protocol for banks to clear and settle payments in real time through a distributed network

- Consensus allows payment exchanges and remittance to happen without need for a centralized clearing house

- Average 5 second confirmations; no mining, custom protocol that hasn't yet been validated for correctness and fault tolerance

- Gateway nodes convert fiat currencies to XRP (currency in Ripple)

- Market-makers convert from one currency to another

- Centralized governance, with Ripple still holding a large fraction of the cryptocurrency

- https://ripple.com

Project Ubin: SGD on Distributed Ledger

Singapore dollar SGD

Just know that the singapore is trying to bring SGD to blockchain (i.e. ledger)

"**Project Ubin:
SGD on Distributed Ledger**"
Report available on MAS website

SGD-on-Ledger prototype with the functions of:
- Pledging of collateral for Depository Receipts (DRs) on blockchain
- Transfers across participants on blockchain
- Redemption of DRs

Connectivity of bank systems to DLT Architecture

Connectivity of MAS Electronic Payment System (MEPS+) to DLT Architecture

Phase 1: Domestic payments using Central Bank issued SGD equivalent

Phase 2: Reimagining Real-Time Gross Settlement (RTGS) on multiple DLT platforms

Development on Distributed Ledger Technology (Ethereum)

Depicts Trade off

Can ignore this

**Liquidity Saving Mechanisms
(Multilateral Netting)** i.e. we just need low cash (liquidity) to participate

**All participants with
full visibility of all
transactions**

**Reliance on a
central
counterparty**

**Project Ubin
Phase 2A**

**Resiliency
(No Central
Counterparty)**

Privacy

**Gross settlement only;
High liquidity requirements
on banks**