



## **Considerations of blockchain and cryptocurrency**

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# WHAT IS BLOCKCHAIN?

Blockchain is to **VALUE**, what the Internet is to **INFORMATION** → Hence, the **Internet of Value**

{ Shared, Peer to Peer, Disintermediation }

No single ownership, Multiple contributors, No 3<sup>rd</sup> party

A **distributed ledger** which allows **digital assets** to be transacted in **real time, immutable** manner

**dig-i-tal ass-et:** something represented in a digital form that has an intrinsic or acquired value e.g., land, house, currency, vote, goods, certificates, identity, rewards etc.

Transparent, Secure, Irreversible



Low Friction

Near real time settlement of recorded transactions



Cryptography (Public & Private Keys)

Verifiable record of every transaction



# WHAT CAN BLOCKCHAIN DO FOR YOU?

A blockchain solution can be initiated as a store or transaction record, serve as a transaction platform or automate business processes



## Record Keeping

- A blockchain solution can offer automated, high-fidelity and low-cost mechanisms for record keeping
- Requires user-specific encryption keys – records are kept in the ledger but only accessible by authorized users



## Transfer of Value

- A blockchain solution enables secure, near real-time, low-cost transfer of value without an intermediary
- Allows transfer of records and value between parties, removing the need for a trusted intermediary



## Smart Contracts

- A blockchain solution transforms how contracts are executed
- Protocol is programmable to trigger transfer of value and information under certain conditions
- Smart contracts can be developed, exchanged, and automatically executed on decentralized systems

*Any industry that is full of intermediaries, loses significant value along the transaction path, and lacks transparency and trust  
**IS AN INDUSTRY** that is **RIPE** for **BLOCKCHAIN**-driven disruption.*

# DIFFERENT TYPES OF BLOCKCHAIN

Blockchain can be public, permissioned, or private, referring primarily to the accessibility and permissions of the network

## Public

- Fully decentralized – Requires very low trust
- Fully transparent – Anyone can read, send transactions and participate in the consensus process
- Slow confirmation of transactions
- Limited privacy protections – Anyone can read the blockchain
- Low cost for transactions



## Permissioned

- Quasi decentralized – Hybrid
- Read permission of the blockchain restricted to participants – Greater degree of privacy
- Consensus controlled by preselected set of nodes (M out of N)
- Participants can agree to rule changes, transaction reversals and modifications
- Transaction costs agreed to by the consortium

✓ **Majority of Corp. Solutions**

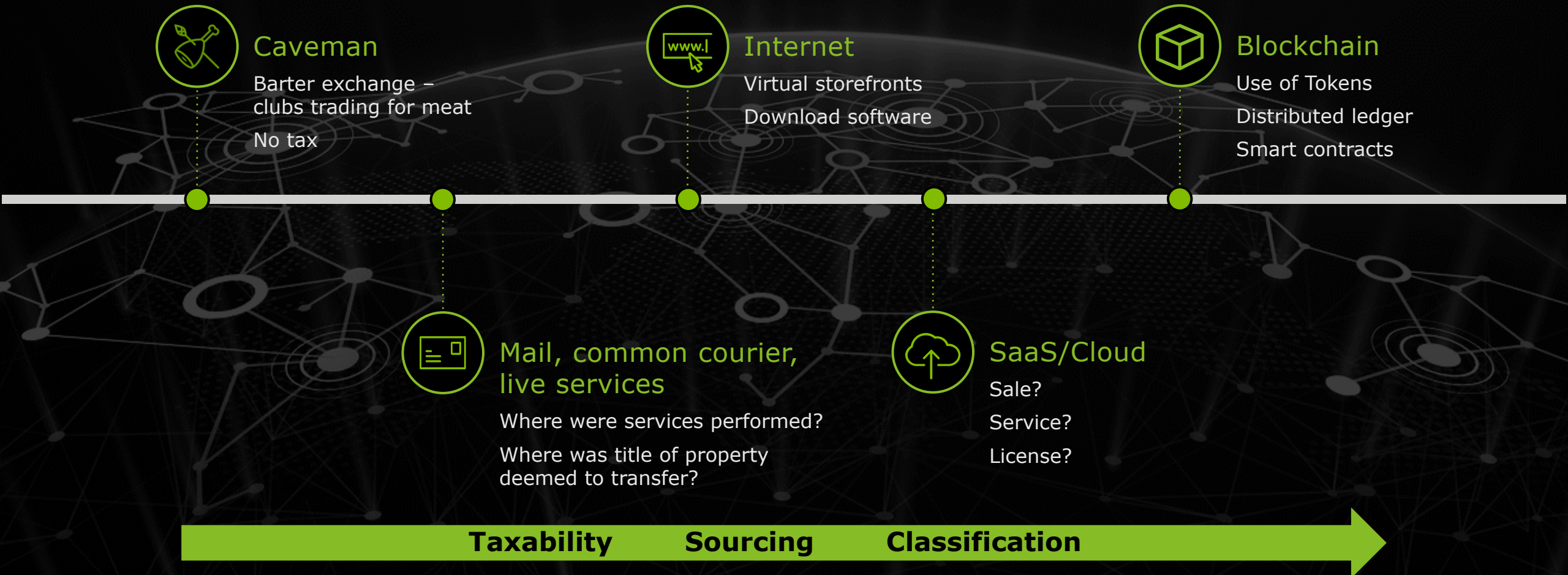
## Private

- Centralized – Requires 'high trust' entity
- Read permissions restricted to participants
- Only the centralized authority has capability to allow rule changes, transaction reversals and modifications
- Greater privacy protection as the centralized entity controls who has access to which part of blockchain
- Transaction costs dictated by one entity

Do you really need blockchain?

# Evolution of the enterprise

## Taxation of the exchange of products and services





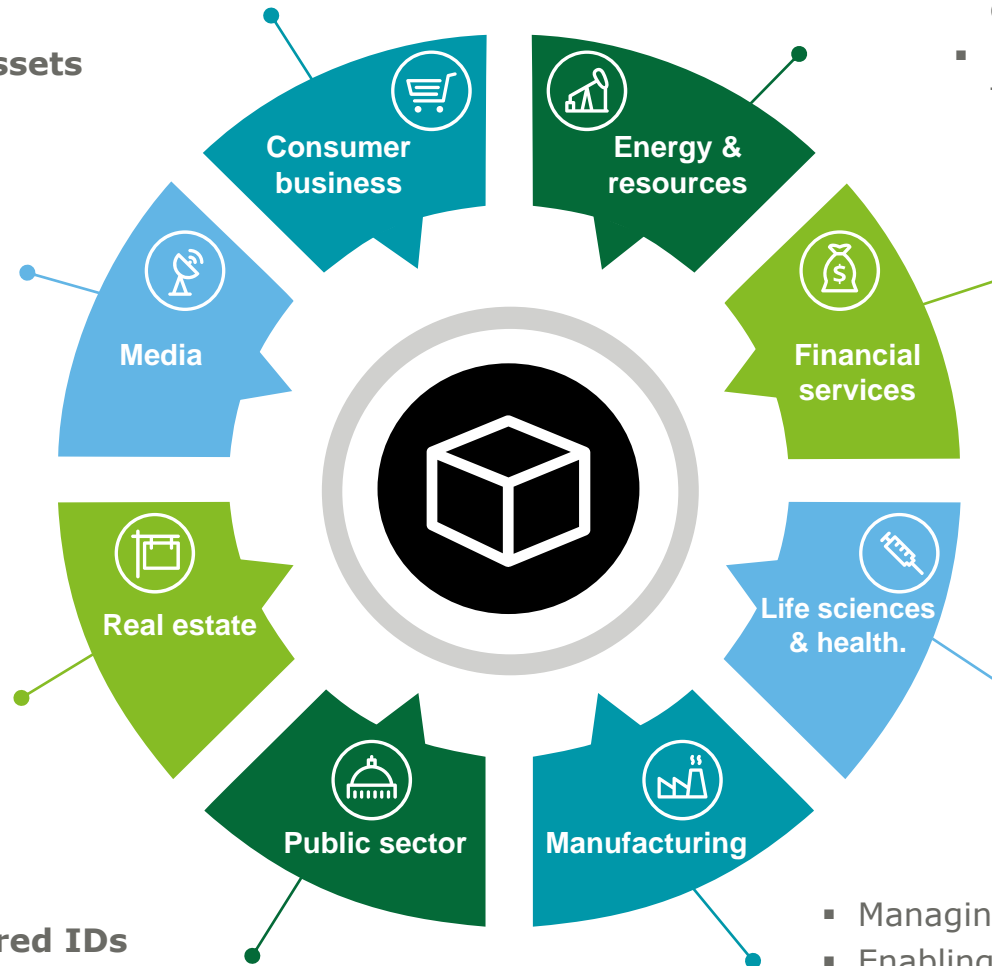
# BLOCKCHAIN IS IMPACTING EVERY INDUSTRY

- **Digitizing warranties** for improved management
- Preventing trade of **stolen goods**
- Distributing and trading in **digital assets**

- Verifying **media authenticity**
- Creating a **decentralized, shared economy**
- Transforming phones to **portable blockchain wallets**

- **Transferring existing land deeds**
- **Migrating the land registry** onto a transparent, immutable ledger

- Managing **registered IDs**
- Creating secure voting platforms
- **Time stamping** of certifications



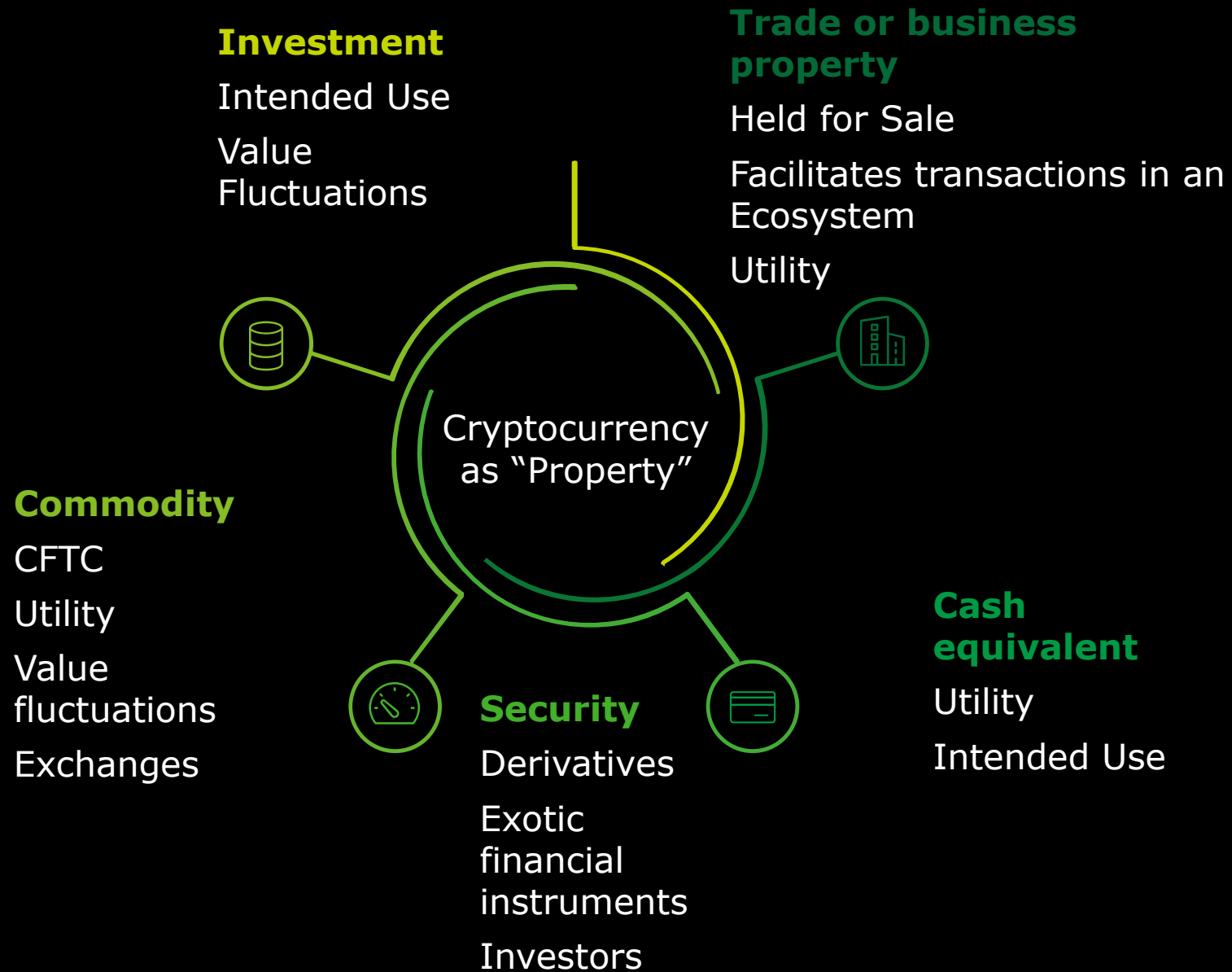
- **Integrating cryptocurrencies** into existing gas station infrastructure
- Enabling **oil commodities investment** trading in **carbon emissions**

- Supporting seamless **cross currency transactions**
- Facilitating direct **peer-to-peer payments**
- Facilitating **clearance of securities**

- Preventing **medical data forgery**
- Tracing and **preventing counterfeit pharmaceuticals**
- Creating and recording a person's **genetic map**

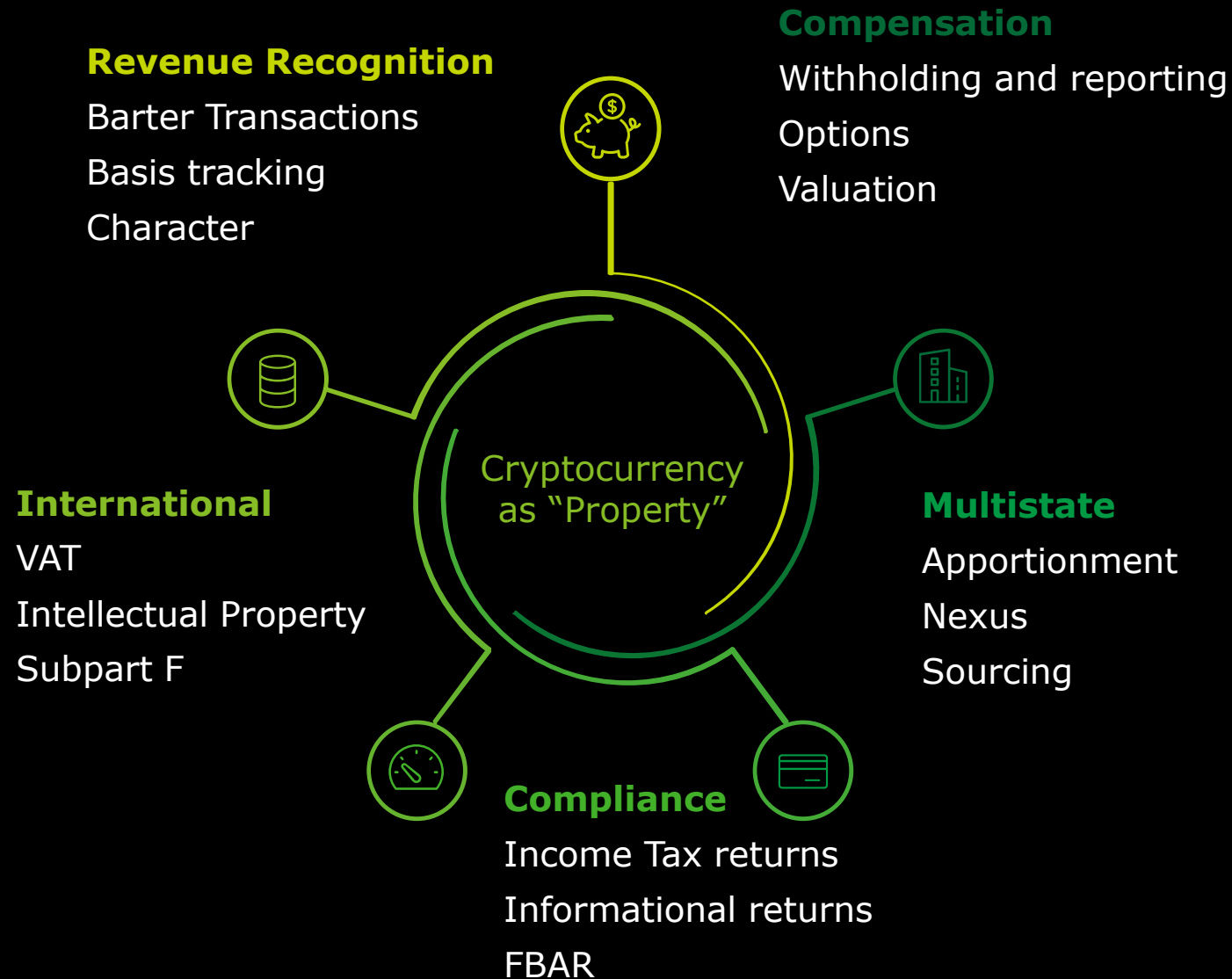
- Managing devices such as **sensors**
- Enabling machinery to **autonomously manage service times** and supply schedules
- Creating transparency and **secure traceability of materials**

# Classification



# Tax considerations

How is it used in the Enterprise?





# Panel

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# Q&A





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