



## **Blockchain and Supply Chains**

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# Blockchain: What makes it Disruptive?

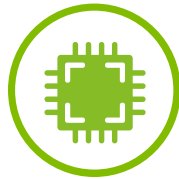
A technology becomes truly disruptive based on the impact it has on core underlying economic attributes

**Internet**



. . . Reduced cost of  
**Search**

**Semiconductors**



. . . Reduced cost of  
**Computation**

**Machine Learning**



. . . Reduces cost of  
**Prediction**

**Blockchain**



. . . Reduces cost of  
**Trust**

In the real business operations today, we need intermediaries to validate and establish trust between parties . . . .it largely works till it doesn't

# What are the key Blockchain capabilities?

Blockchain's unique and transformative capabilities have the potential to disrupt many industries



## Transparency

All blockchain participants are able to view data added to the chain, while the chain improves data integrity by being the single source of truth



## Disintermediation

By enabling transparency and trust, the blockchain can fulfill the roles that intermediaries traditionally provide



## Trust

Blockchain's connected data blocks and distributed validation structure establishes trust between participants without them having to know one another

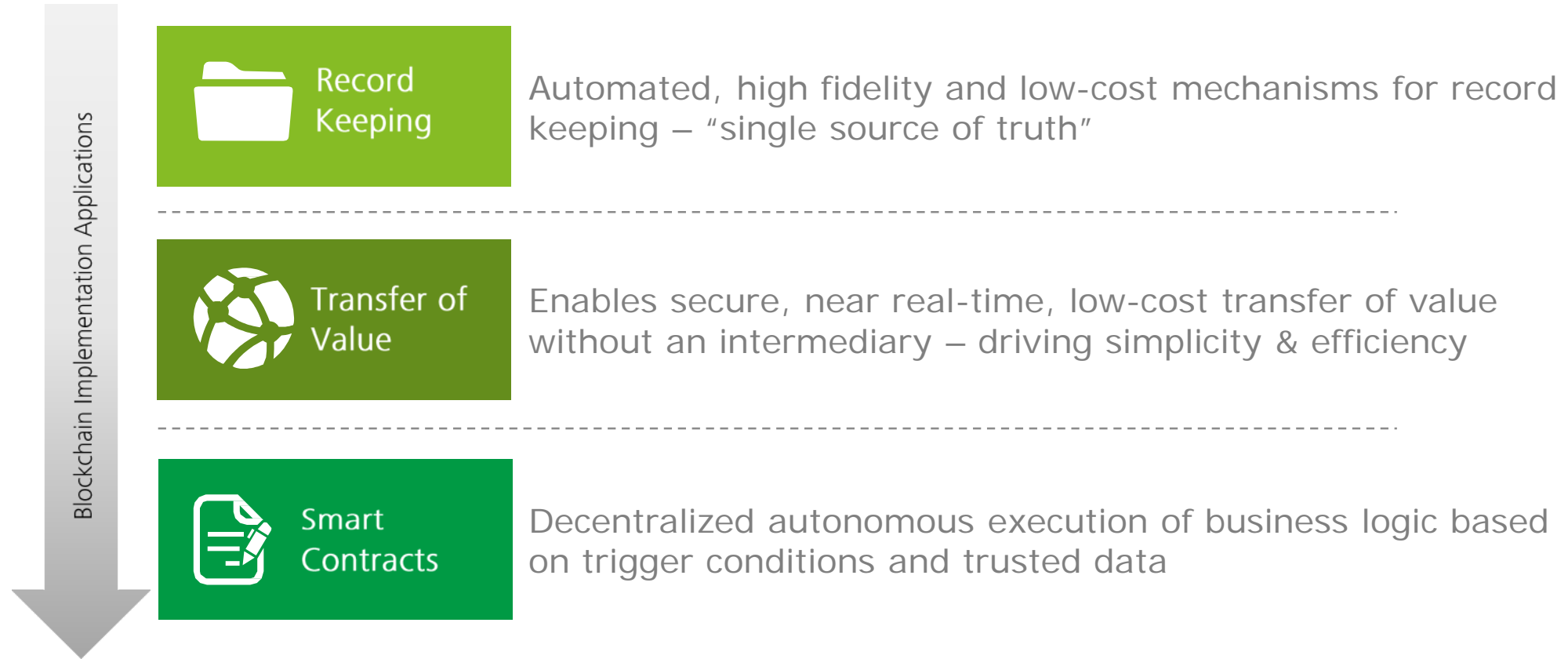


## Auditability

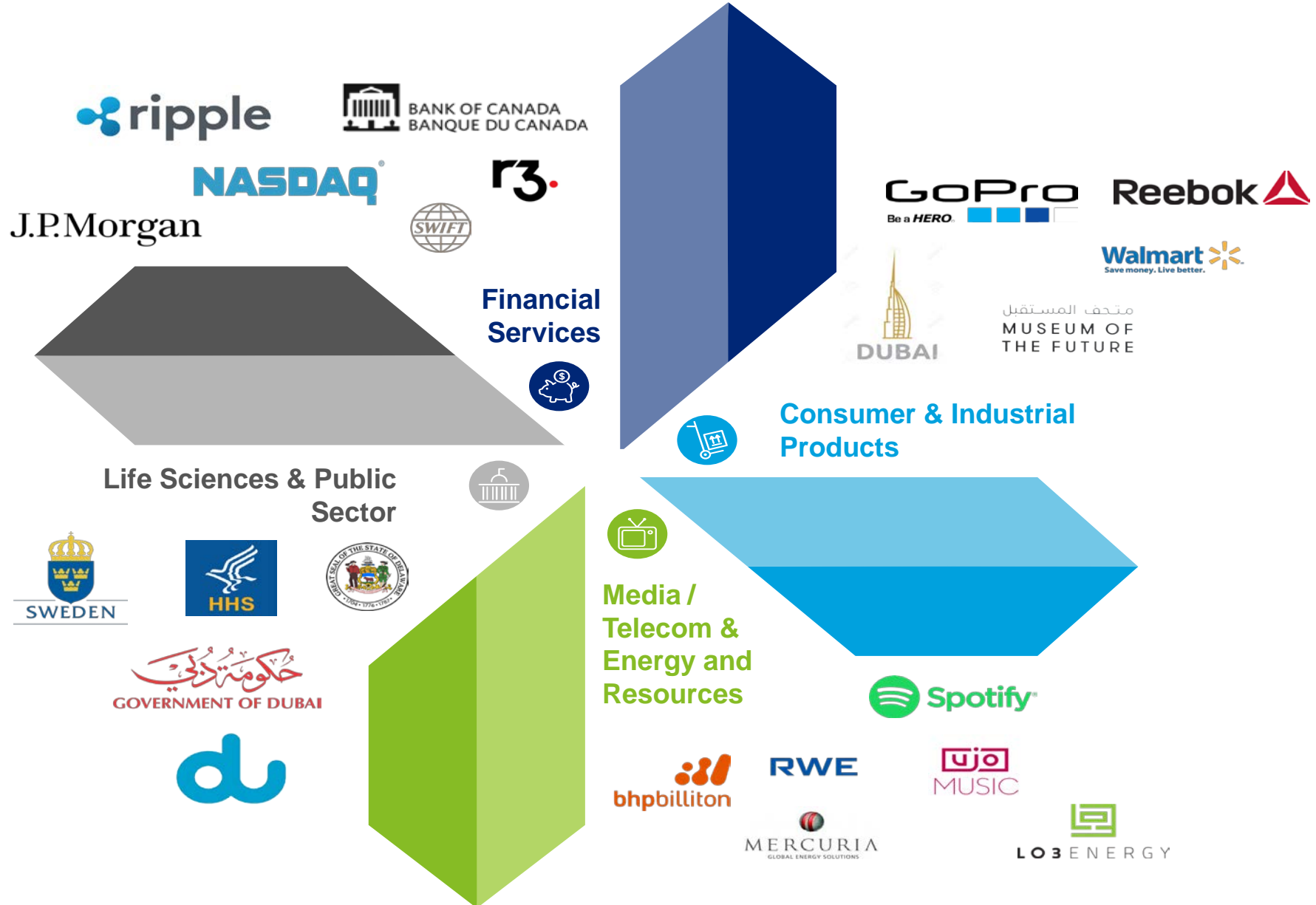
Blockchain data is immutable and everlasting, creating an exhaustive means of record keeping

# What can Blockchain do for you?

Blockchain possesses important characteristics to transform existing products / services and enable new innovative solutions



# Blockchain is making an impact across every industry



# Transforming supply chain using blockchain

Digitization of the goods movement process can help establish more transparent sourcing practices, achieve operational optimization and opens up the opportunity to re-engineer legacy trade finance processes



## Transparency & Confidence

Organizations will be able to better trace back the source of their goods across the globe, ensuring that their goods have been sourced lawfully and responsibly

- Chain of custody
- Quality of product
- Shipment Tracking



## Information Consistency

Information will be consistent across the supply chain, reducing friction generated from discrepant or lost information as goods move through the supply chain

- Purchase Orders
- Consignment Details
- Bill of Lading



## Financing & Insurance

The added transparency could help re-engineer trade finance processes entirely, giving banks more visibility into the entire supply chain

- Letters of Credit
- Insurance
- Guarantees
- Factoring / Forfaiting

# High impact areas within the industry

Within the port & supply chain industry, Blockchain technology is being leveraged to alleviate pain points within the areas of data sharing, documentation, and asset tracking.

|   | High Impact Blockchain Areas   |   |  |
|---|--|---|--|
| Industry Segment  | Ports  | Supply Chain  | Trade Finance  |
| Examples  |    |    | <br>   |
| What are the core problems they are trying to solve for | <p><b>Port of Antwerp</b> is automating and streamlining lining container's logistic operations</p> <p><b>Port of Rotterdam</b> is sharing logistics and contractual information between parties</p> | <p><b>BHP Billiton</b> is tracking movement of wellbore rock and fluid samples to secure real-time delivery data</p> <p><b>Reebok</b> is developing open registry for shoes</p> <p><b>Maersk</b> is digitizing and simplifying global trade through a simplified and transparent supply chain</p> | <p><b>Deloitte and Hong Kong Monetary Authority (HKMA)</b> are facilitating effective use capital and enable efficient forms of financing</p> <p><b>Digital Trade Chain (DTC)</b> is developing shared supply chain management and trade finance platform for small and medium-sized companies</p> |