

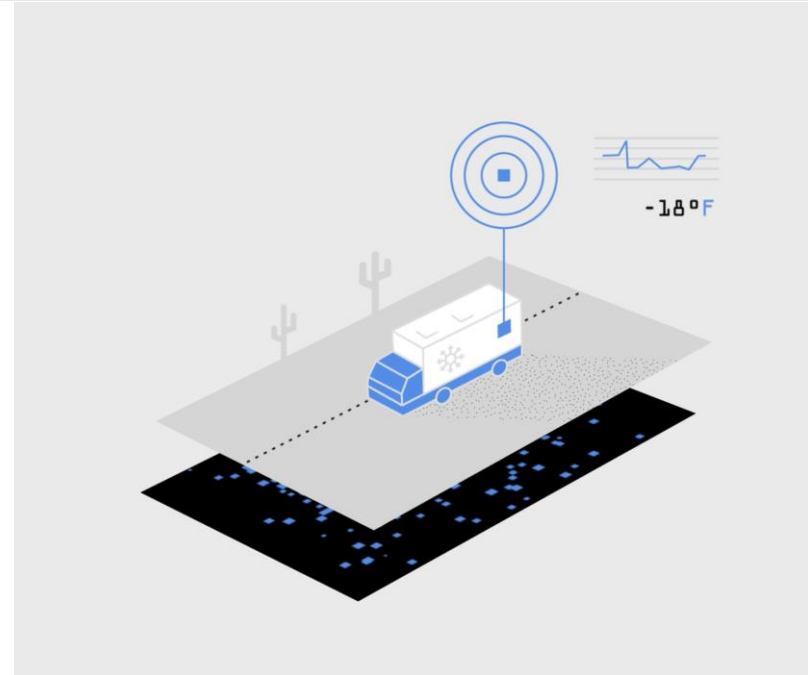
# Smart Buckets | Blockchain Simplified Logistics

Simplified logistics, supply chain tracking, transparent provenance, and ownership of objects with unique blockchain based identity protocol.

Hans Lombardo

Co-founder, Chain of Things

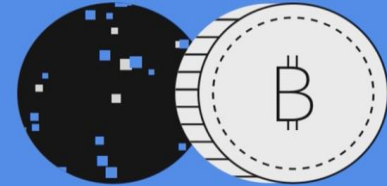
[hans.lombardo@chainofthings.com](mailto:hans.lombardo@chainofthings.com)



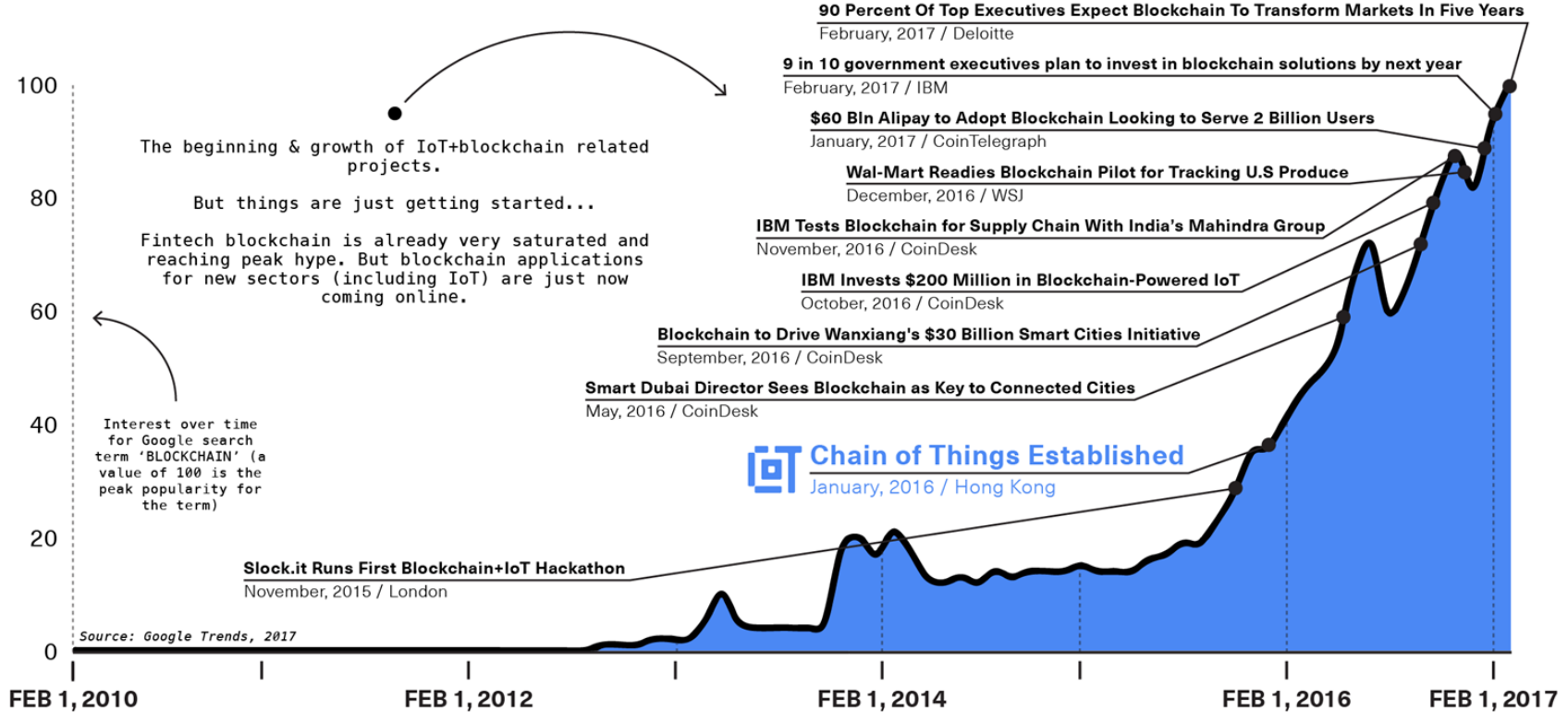
# What are Blockchain's Strengths & Characteristics?

- **Borderless**
- **Neutral**
- **Censorship resistant**
- **Open**
- **Re-establishes trust in intermediaries**
- Immutability
- Security
- Anonymity
- Transparency
- Disintermediation
- Validation / Authentication

Blockchain

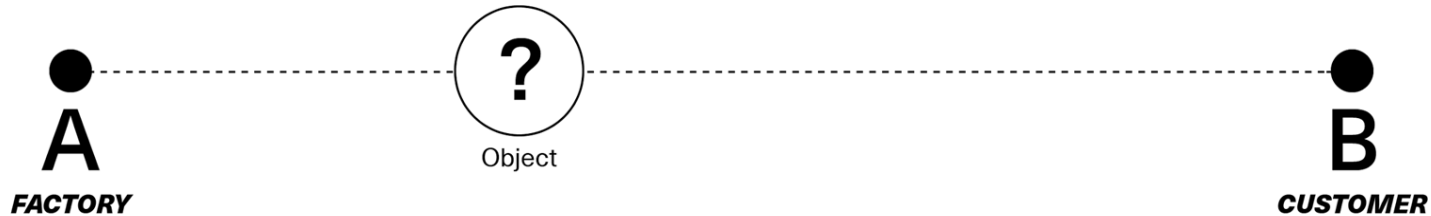


# Growth Increasing of Alternative Blockchain Applications



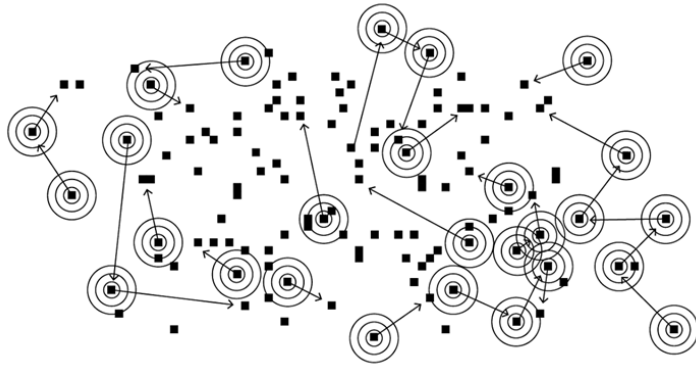
# Supply Chains: The Problems

- Comprehensive supply chain tracking, transparency, ownership
- Multiple parties that do not trust each other
- Disruption of paper, creation of smart, digitized custody of title (Smart Bills of Lading)
- Clean reporting of object provenance, carbon footprint, environmental efficiency
- Secure, identified, interoperable devices
- Initial platform for Vendor Rating; other reputation based identity applications

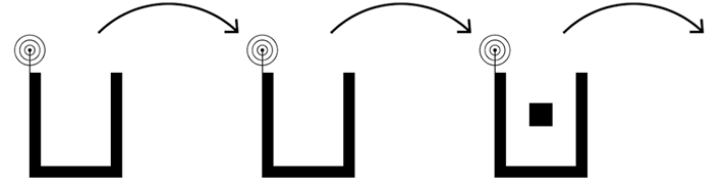


# Possible Blockchain Solutions?

1. Track everything with BILLIONS of sensors
2. Simplified tracking based on '**Smart Bucket**' zones



vs.



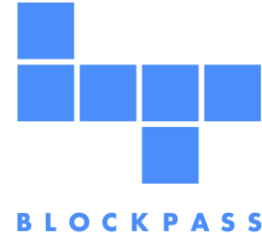
# Smart Buckets Powered by **Blockpass Identity Network**

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Chain of Things is helping to develop  
Blockpass: **a blockchain identity  
protocol for the internet of everything.**

Blockpass acts as the secure conduit  
between **human, company, object, and  
device identities.**

This will enable the development of highly  
efficient new applications that rely on a  
trusted connection between parties that  
may not know or trust each other.



# Shipping Stack Identity Profiles

Blockpass is a blockchain identity protocol for the internet of everything.

Blockpass acts as the secure conduit between **human, company, object, and device identities**.

This will enable the development of highly efficient new applications that rely on a trusted connection between human, company and device identities.

Blockchain based identities for all involved parties



Dumb Object  
(Object Identity)



Smart Bucket  
(Device Identity)



Company  
(Company Identity)

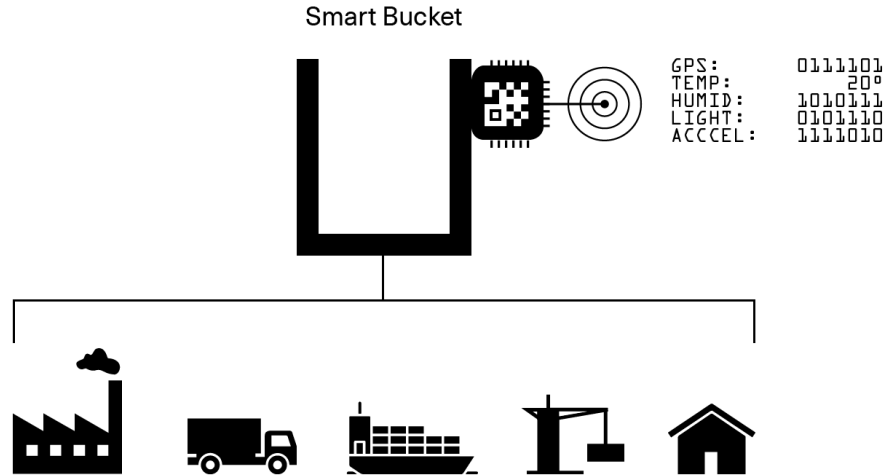


Human Identity  
(Human)

# What is a Smart Bucket?

A Smart Bucket is a physical **'zone'** in which simple objects in transit are currently inside of - such as a factory, pallet, container, truck, ship, etc.

Sensors on each Smart Bucket report the ongoing environmental status of that respective stage in the supply chain; location, temperature, humidity, light, acceleration, etc.

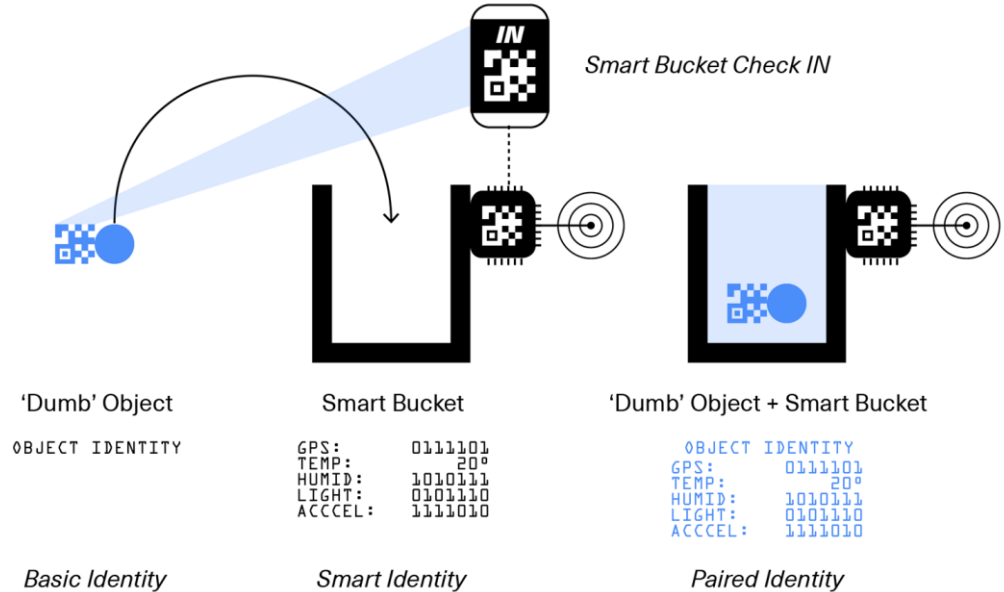




# How does it work?

A 'dumb' object's blockchain based identity adopts the detailed environmental status of the current Smart Bucket that it is contained within.

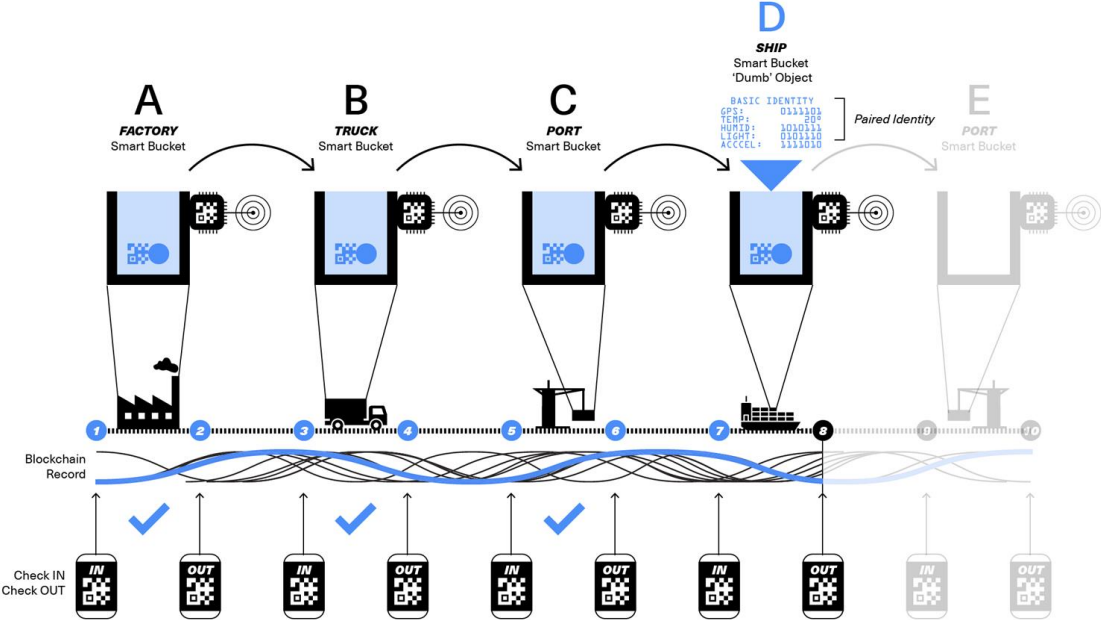
This forms a 'paired' identity in which the dumb object reflects the detailed live sensor data of the current Smart Bucket host.



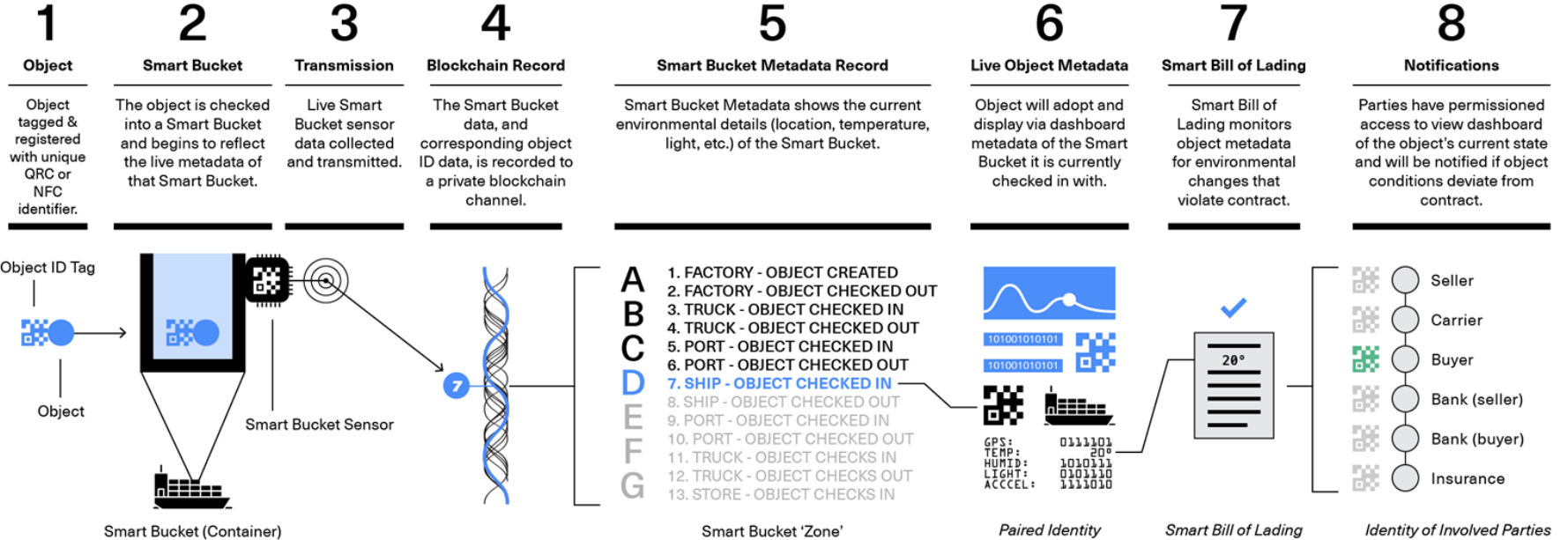
# Dumb Object Journey

‘Dumb’ objects are checked in and out of Smart Buckets as they travel along the various stages of their logistical journey.

The paired metadata is recorded to a blockchain and keeps a decentralized and immutable log of an object’s transit history and treatment.



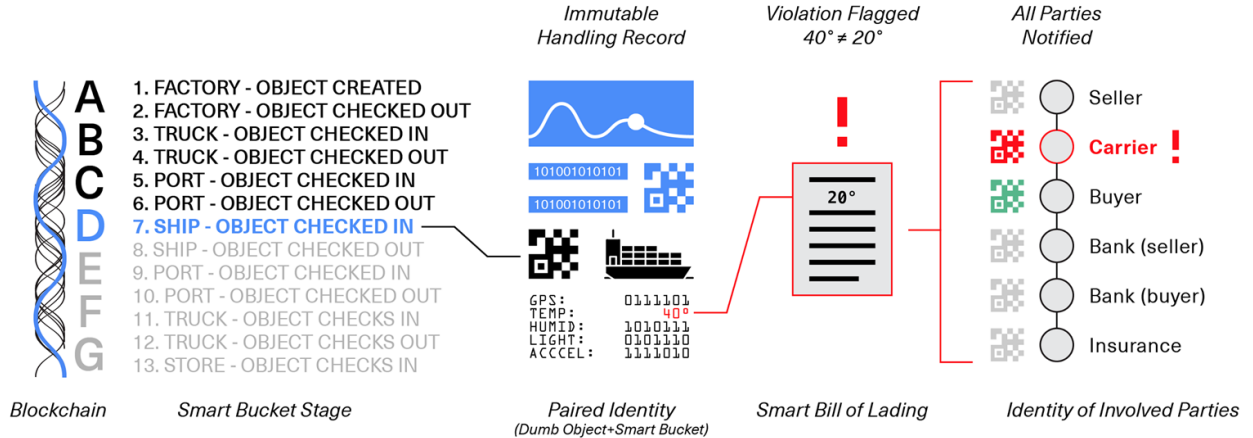
# Smart Bucket Process



# Smart Buckets & Smart Bills of Lading **VIOLATION!**

Live Smart Bucket data is permitted to the identities of all parties involved in the object's existence and journey.

Any violations of the Smart Bill of Lading are flagged by the Smart Bucket's environmental sensors and relayed to all parties for review and correction.



# Key Benefits of the Smart Bucket Model

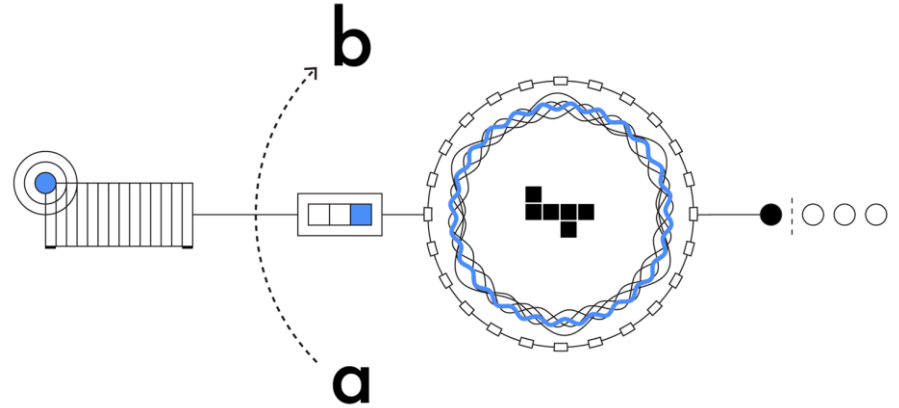
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- Comprehensive supply chain tracking, transparency, ownership
- Clean and efficient reporting of product provenance
- Secure, identified, and interoperable objects and Smart Buckets
- Initial platform for Vendor Rating and other reputation based applications
- Greater efficiency and loss prevention due to increased frictionless transparency



# Next Steps

- Potential Shipping Identity Network (IDN)
  - Objects
  - Devices
  - Companies
  - Humans
- Live Blockpass PoC with industry partners
- Development of scalable Blockpass solution



# Thank You!

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