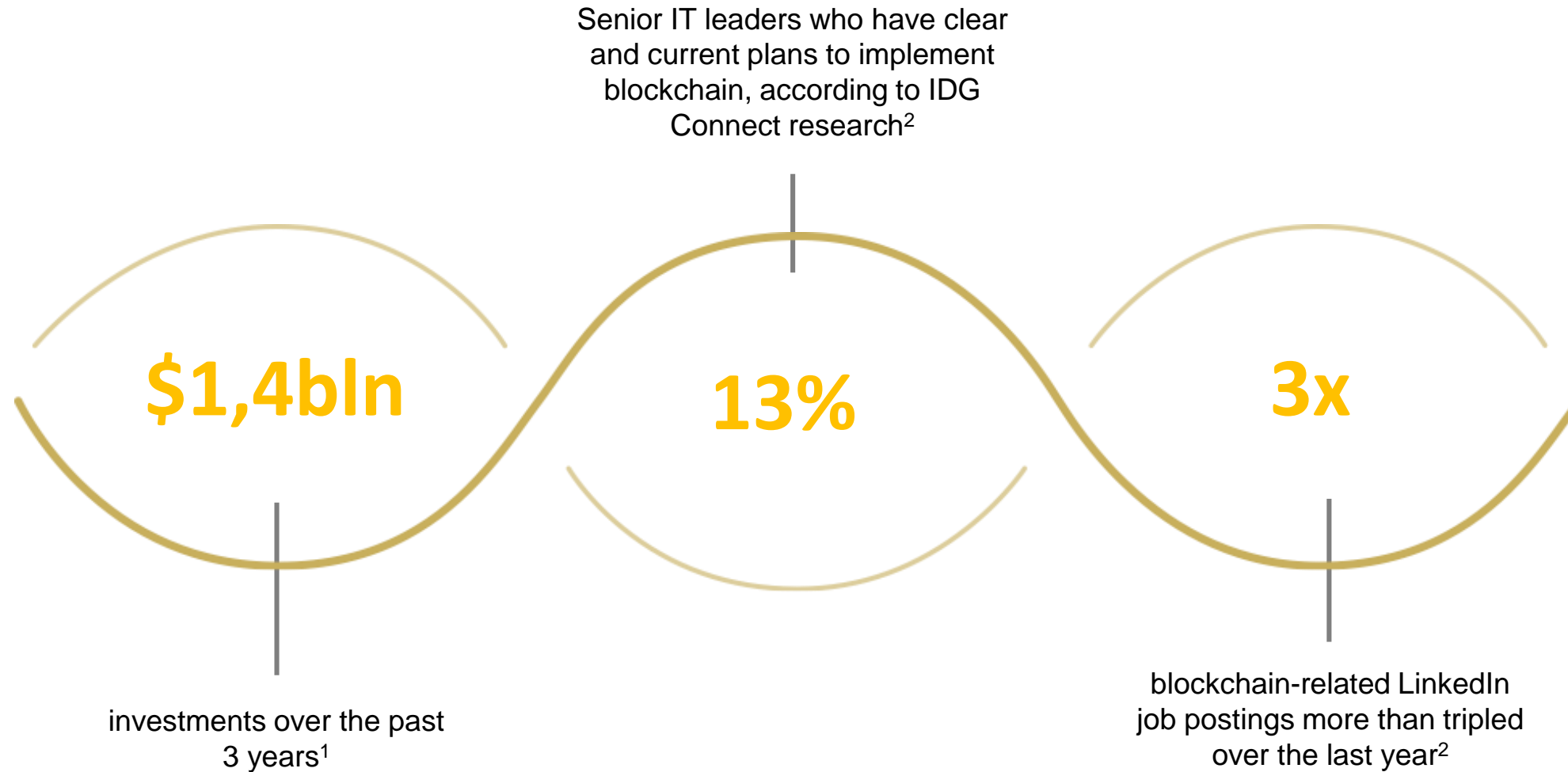




# Un caso d'uso: l'Intelligent Blockchain per le imprese visionarie

September, 2018

# Blockchain in Enterprises



1. [Deloitte. The future is here](#)
2. [The Enterprisers project](#)

If you have to define Blockchain in 3 words?

**A distributed ledger**

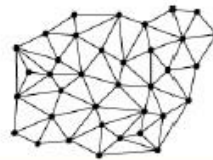
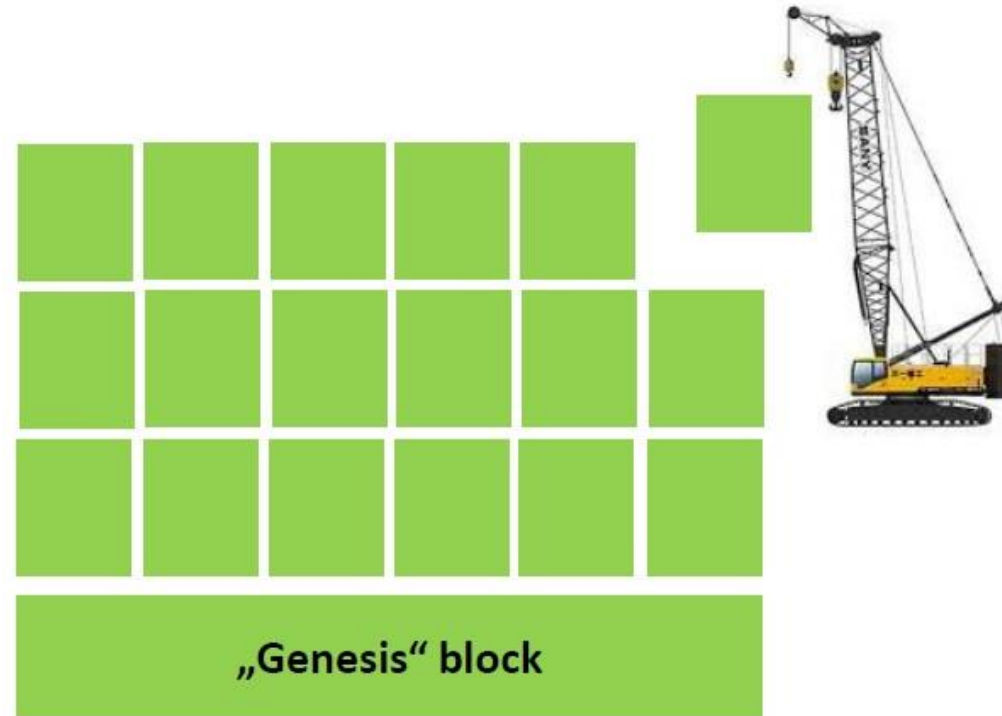
# Foundations of Blockchain

C  
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The network stores all information in cryptographically secured data pieces called blocks

Blocks store information about the previous block, thus, they are chained together using cryptography

Each block has limited storage size



Each node (computer) on the network stores a copy of the entire Blockchain

**P2P Networks**

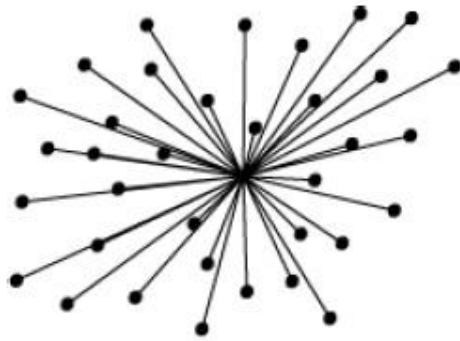
New blocks get added to Blockchain network by consensus of network miners at even time intervals

Miners get rewarded for validating transactions and adding new blocks

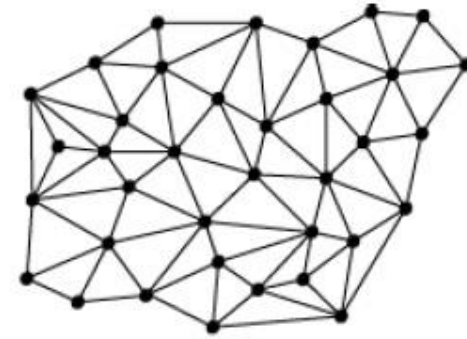
**Game Theory**



# Basic Idea Behind (Bitcoin) Blockchain



centralised

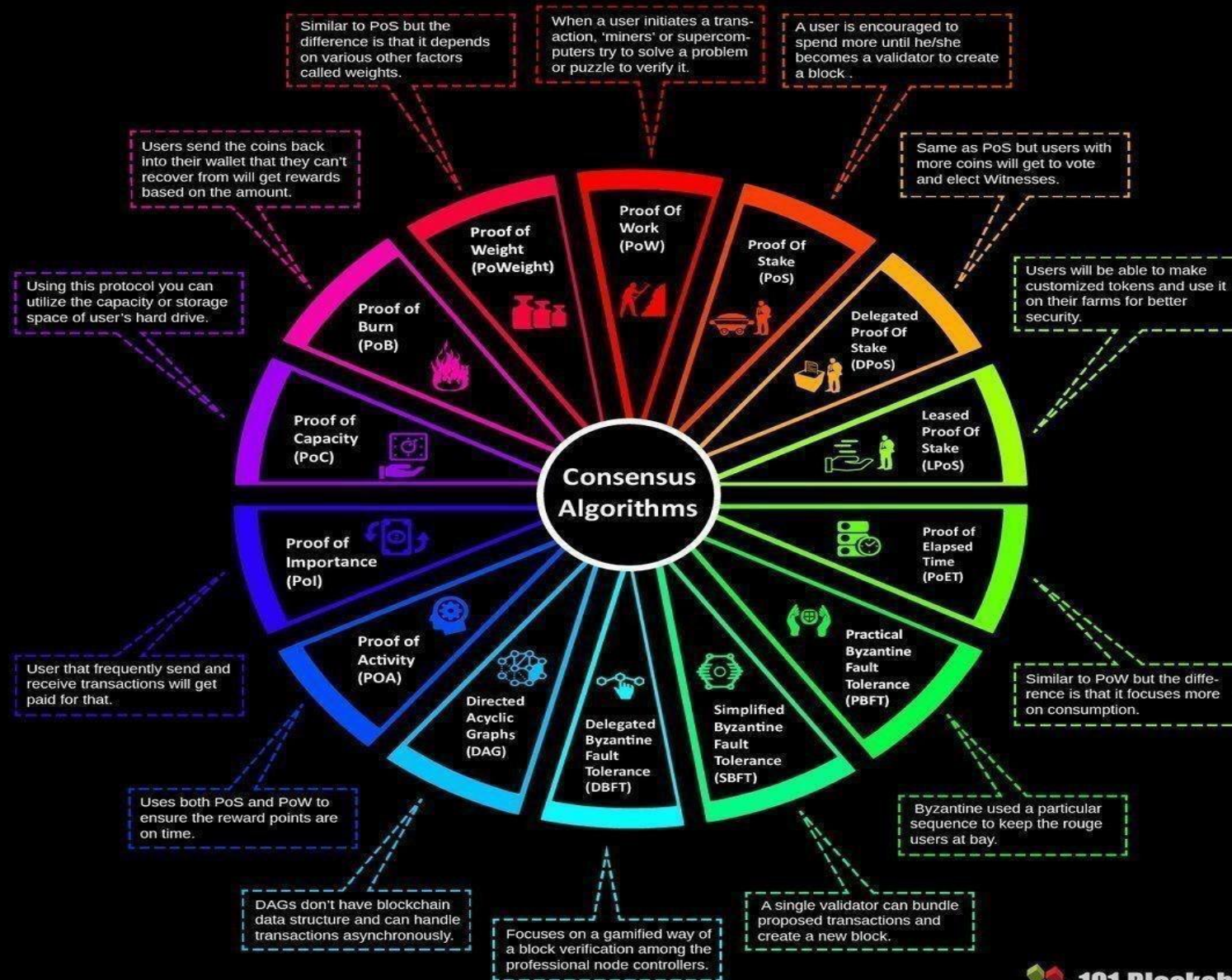


distributed

- **Peer-to-peer** electronic transactions and interactions
- **Without financial institution**
- **Cryptographic proof** instead of central trust
- **Put trust in the network** instead of in a central institution



# Different Types of Consensus Algorithms



# General Bitcoin Nodes Distribution

## GLOBAL BITCOIN NODES DISTRIBUTION

Reachable nodes as of Tue Aug 28 2018  
06:13:50 GMT+0200.

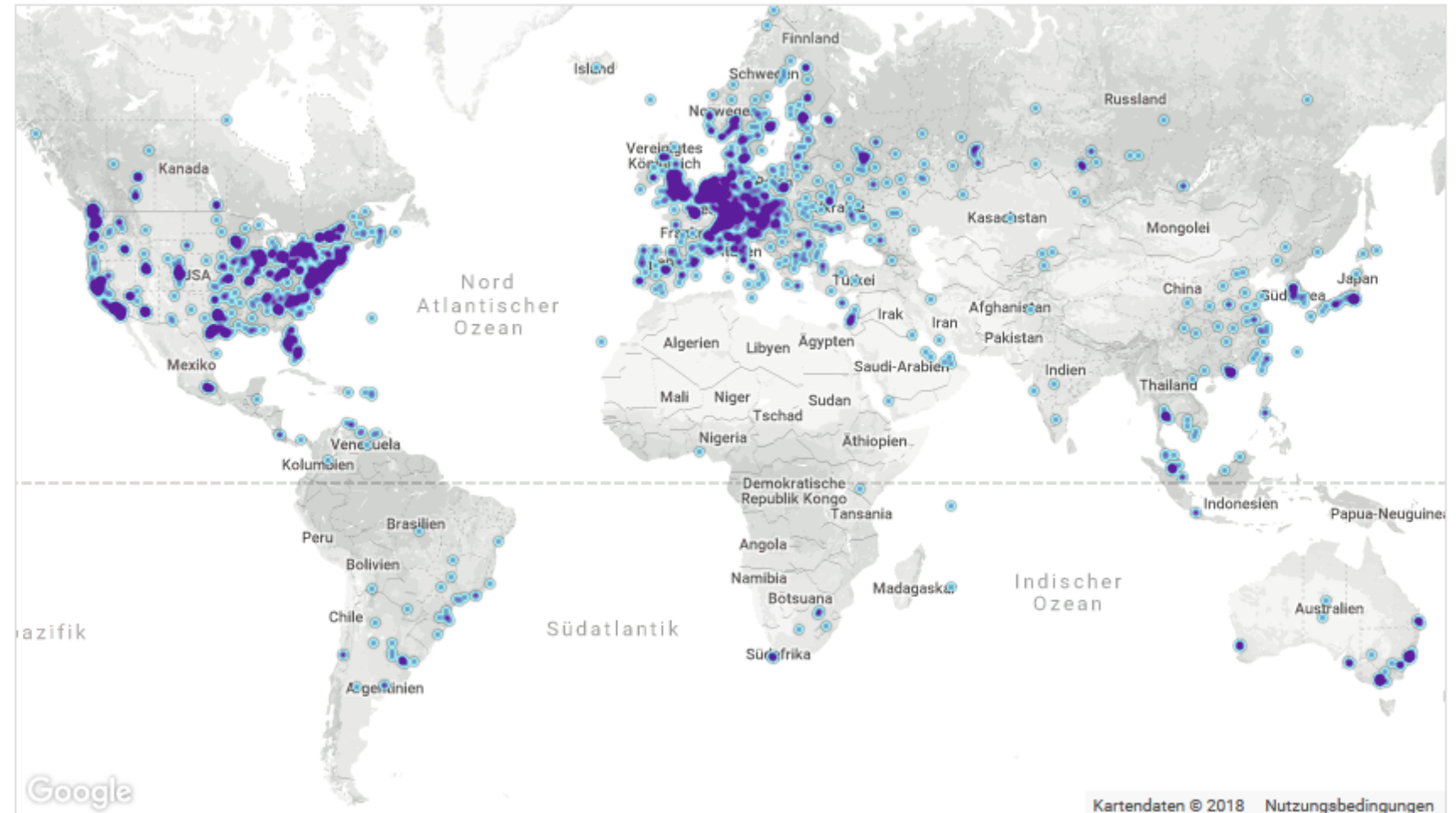
### 9748 NODES

24-hour charts »

Top 10 countries with their respective number of reachable nodes are as follow.

RANK	COUNTRY	NODES
1	United States	2361 (24.22%)
2	Germany	1791 (18.37%)
3	China	706 (7.24%)
4	France	661 (6.78%)
5	Netherlands	490 (5.03%)
6	n/a	441 (4.52%)
7	Canada	350 (3.59%)
8	United Kingdom	298 (3.06%)
9	Russian Federation	297 (3.05%)
10	Singapore	235 (2.41%)

[More \(100\) »](#)



Map shows concentration of reachable Bitcoin nodes found in countries around the world.

[LIVE MAP](#)



# Blockchain has applications in ...

**„Blockchain can find applications in any industry, where the transactions take place“**

*(Sultan et al. 2018)*

Banking & Payments

Healthcare

Insurance

Online Data Storage

Media

Crowdfunding

Music

Voting

Supply Chain  
Management

Cybersecurity

Real Estate

Ride Sharing

Energy

Forecasting

Government

Publishing

Charity

Internet of Things

Retail

Art



# Blockchain & Energy

## Hard facts:

Top 3 countries: Netherlands, Germany, US

Most common use case: P2P energy trading



Australia

SOLARA's Blockchain platform creates a trustless PV energy provenance records

China

P2P platform for a distributed energy system, focus on microgrids

Active in Philippines and China



US

P2P Solar energy trading within community of Brooklyn



Germany

Platform that allows the car to process transactions autonomously and in real-time via the Blockchain

# Blockchain & Insurance

## Hard facts:

More than 200 use cases for Blockchain in insurance currently available



France

Insurance against flight delay for any cause  
Automatic reimbursement of eligible passengers

Germany

Blockchain-based parametric insurance



UK

A permanent record on the Blockchain of valuable assets to reduce insurance fraud

# Blockchain & Charity

## Hard facts:

43% of people do not trust in traditional charity any more



Providing real-time tracking of funds and project outcomes using Blockchain

Idea: to make donations trackable and efficient





# Blockchain & Fashion

INTELLIGENCE

## Fighting the \$450 Billion Trade in Fake Fashion

BoF lifts the lid on the shadowy market in fake fashion and what the UK's special anti-counterfeiting police unit — the only one of its kind in the world — is doing about it. [Source article](#)

**-9.9 billions / year**  
in revenues in the Italian Fashion Market  
([source Confartigianato](#))



| In The USA Ferragamo wins the battle against fake and gets exemplary reimbursement (60 million dollars). 150 domains locked down

Ferruccio Ferragamo, president of the group -. The internet is a primary channel frequently used by fake products traffickers; therefore, we monitor and keep an eye on it consistently. Over the last years, our group implemented a number of actions against counterfeiting, both offline and online, aiming to safeguard our customers and the value of our trademark". In 2017, the group succeeded in removing, from the most important web platforms, over 35,000 illegal contents and accounts; likewise, they tackled and removed, from several online auction sales websites, nearly 69,000 advertisements about fake products.

[Source article](#)



# What are brands doing?



Luxottica is constantly searching for new ways to make more effective the fight against counterfeiting and counter the expansion of the parallel market that diverts goods to unauthorized sales channels. The phenomenon threatens the companies' identity - expressed through the strength of the brands and the quality of products - the solidity of the official markets (particularly eyewear), the health of consumers who buy poor and unsecured products.

In this context, Luxottica has developed GLOW (Guaranteed Luxottica Origin Worldwide), an innovative traceability system based on RFID technology which allows to verify the authenticity of the products as well as suitability of resellers through a sensor (RFID TAG) embedded in the frame. The device contains key information to identify unambiguously each pair of glasses, from production to sales destination. It is passive (emits no radio waves) so it is safe for health and does not record personal data but only delivers information about the products.

GLOW allows the Group to intensify controls throughout the supply chain, taking the necessary corrective measures to protect our brands as well as our clients and end consumers who rely on our company for the high quality of products and services.

[Source article](#)



[Source article](#)



SHOP MEN SHOP WOMEN SHOP KIDS

en / it

BRAND PROTECTION OFF-LINE BRAND PROTECTION ON-LINE BRAND PROTECTION ANTI-COUNTERFEITING LABELS LATEST NEWS

## Brand Protection

Moncler has established a specialist internal [Intellectual Property and Brand Protection Department](#) to implement and update global management strategies in respect of the Company's brand portfolios, designs, patents and domain names, essential for protecting and enforcing intangible assets, both on the internet and in markets in over 100 countries worldwide.

Brand Protection, synonymous first and foremost with Customer Protection, is the philosophy which underpins and guides the team. For this reason, numerous activities are supported, bearing in mind the central role of the customer in the fight against counterfeiting.

# How do you spot fake jeans?

Are they real or fake?



Where do they come from?



Which fabric are they made of?

Are they new or used jeans?

Are they worth the price I paid them?

The next logical question: How do I know that Blockchain is relevant in my **use case**?

Do you need a  
**blockchain?**

most probably

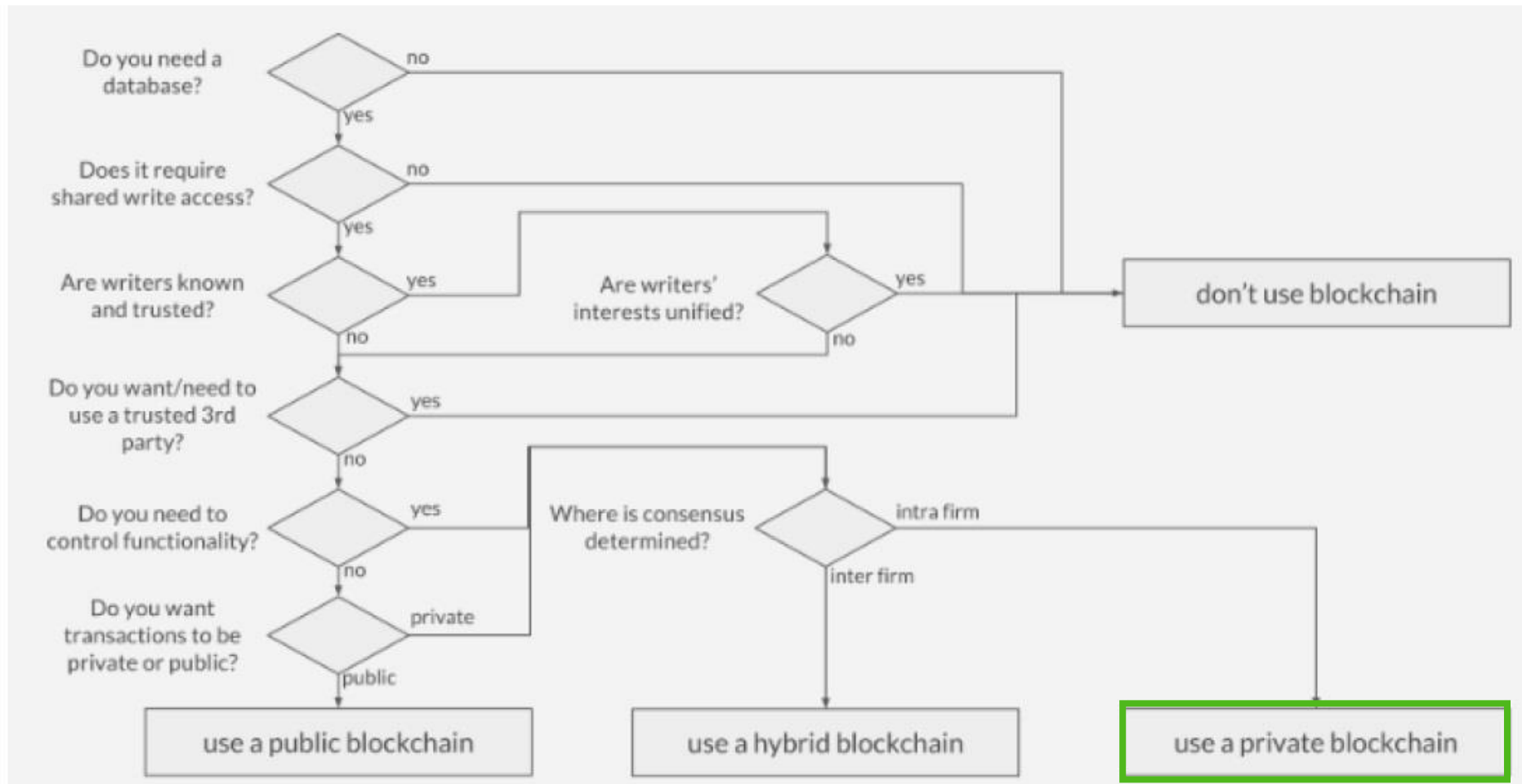
**NO**

Check it up!

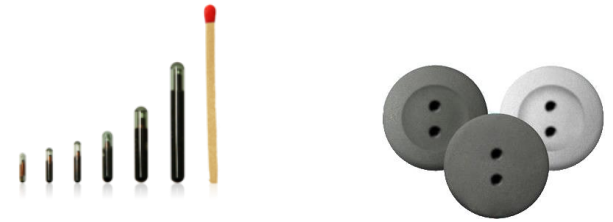
<http://doyouneedablockchain.com/>

# Generating Blockchain-based Business Ideas

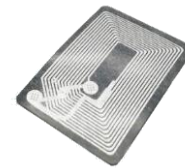
Do you need a Blockchain (Bart Suichies 2015)?



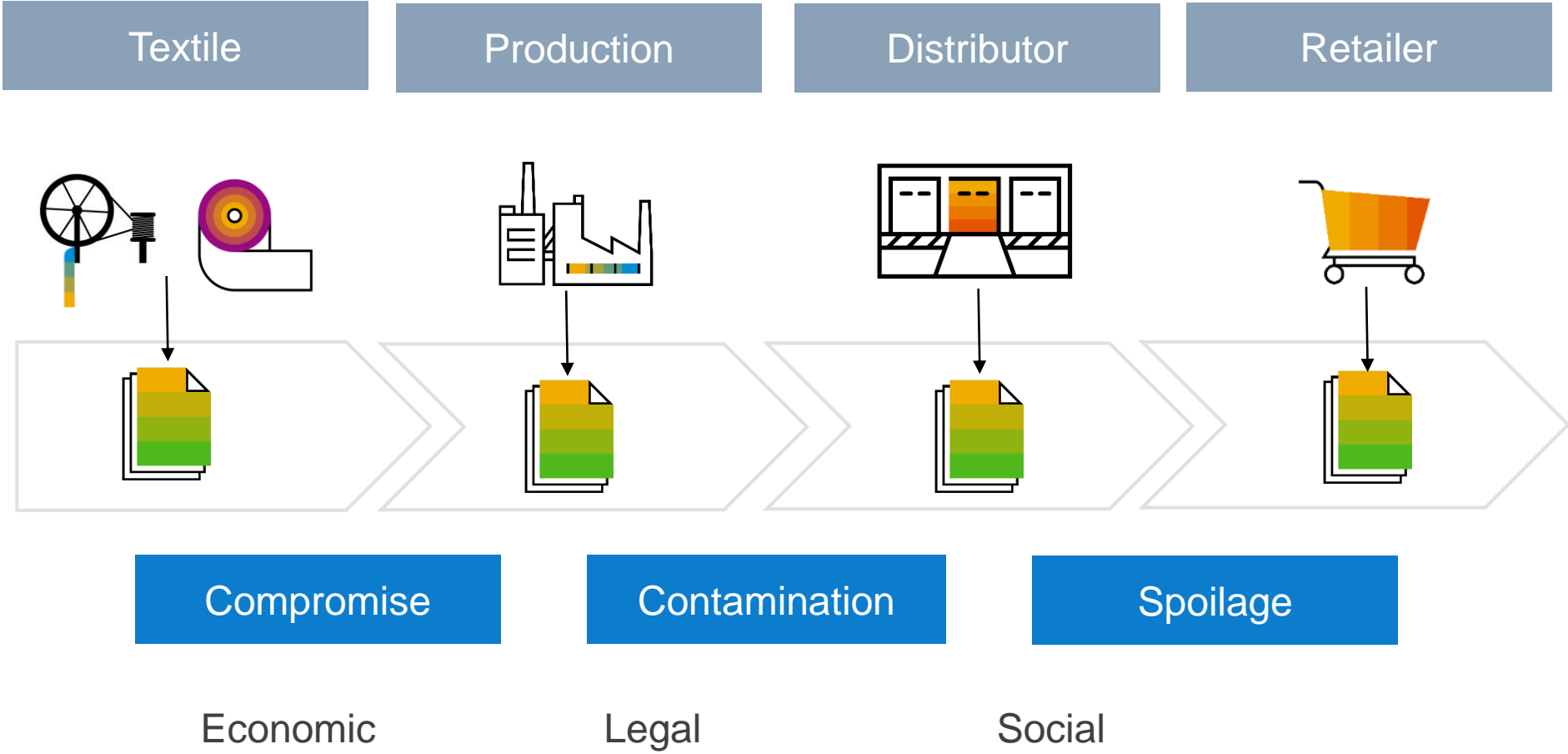




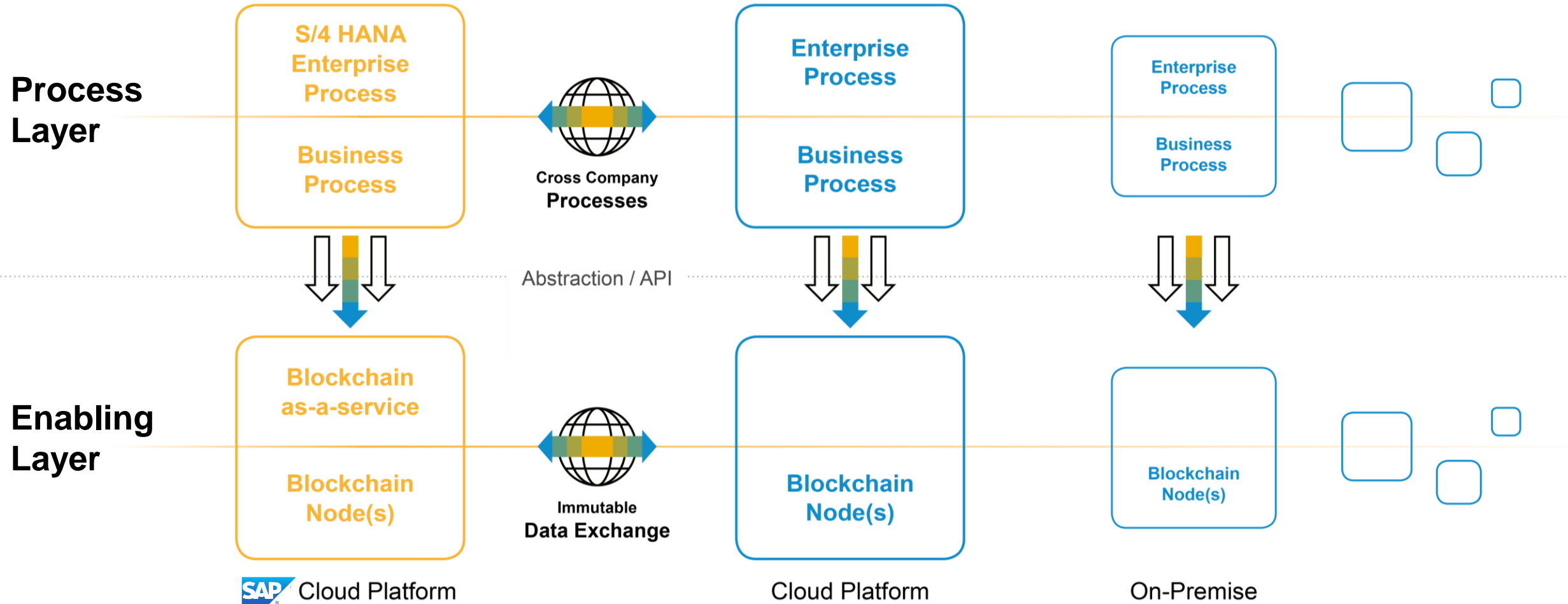
## Blockchain + RFID tag



# Fight counterfeiting with blockchain

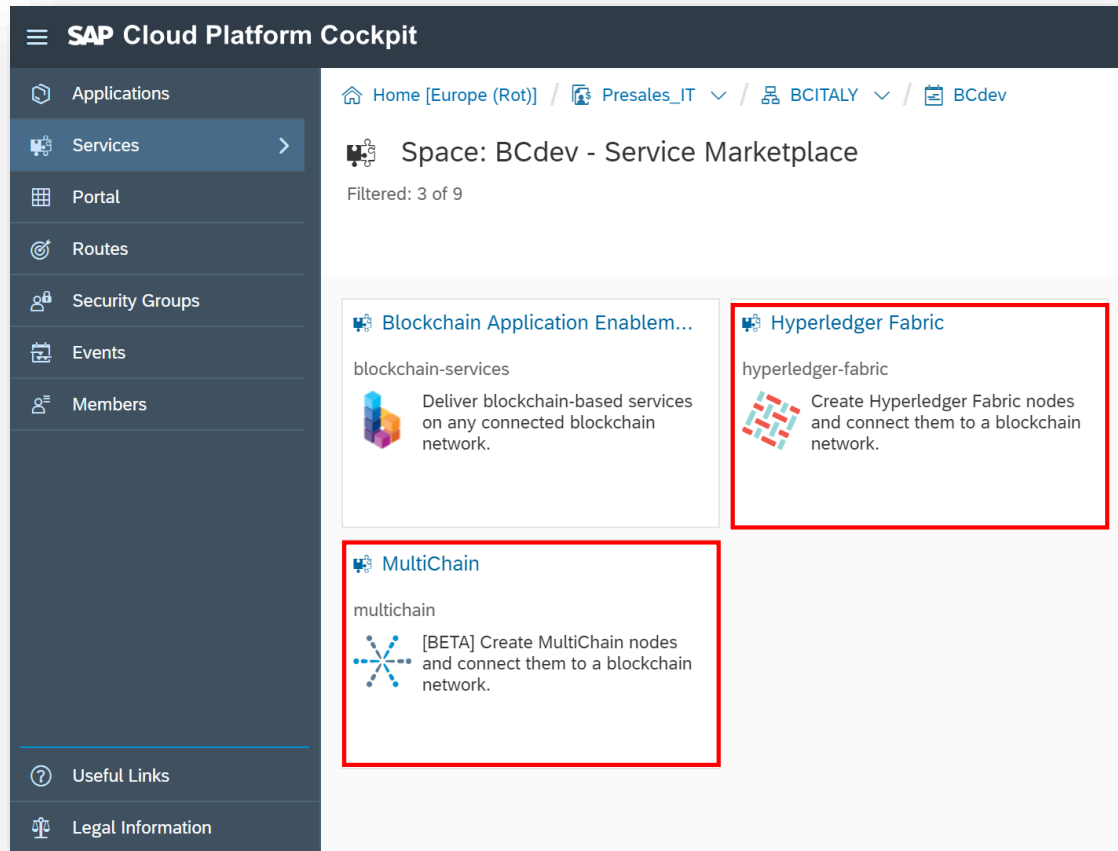


# Blockchain in Enterprise Processes



# SAP Cloud Platform **Blockchain Service**

Enable enterprise applications, customers and partners to leverage Blockchain capabilities




- **Extend** existing solutions with enterprise blockchain capabilities
- **Build** own enterprise blockchain-based application according to their specific needs
- Instantiate an enterprise **blockchain network**
- Lay the foundation to participate in productive enterprise blockchain installations



# Technical Demo

*Let's have a look!*

Blockchain Odometer

Blockchain Access

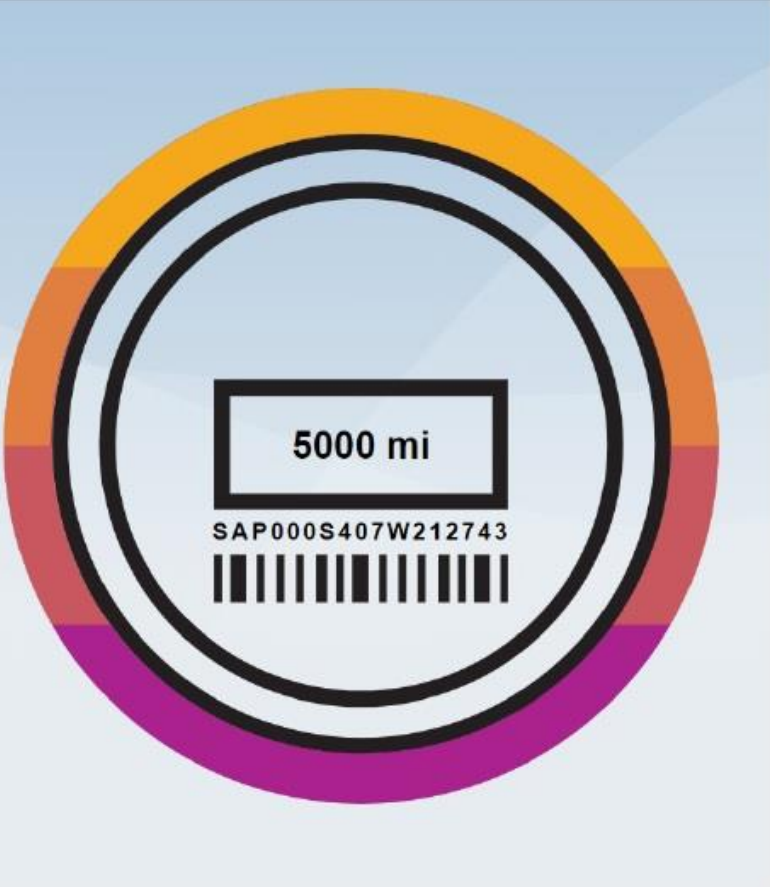
Write


Vehicle Identification Number  
SAP000S407W212743

Overall Distance in Miles  
5000 mi  
This value is not allowed on the blockchain

WRITE

Read



SAP MultiChain Dashboard

d022933

Node Information

Transactions

Blocks

Streams

Assets

Permissions

Useful Links

Legal

streams / 60-266-48518 /

Key SAP000S407W212743 in Stream 60-266-48518

Current Value: 9000

Last Changed: April 19, 2018 4:05:31 PM

Last Publisher: 1UG9QbHd6Ft9wcWTDNDWAEBQu23Hq7CD4Ae57u

VALUES

9000  
April 19, 2018 4:05:31 PM by 1UG9QbHd6Ft9wcWTDN...

100  
April 19, 2018 4:01:56 PM by 1UG9QbHd6Ft9wcWTDN...

10  
April 19, 2018 3:59:41 PM by 1UG9QbHd6Ft9wcWTDN...

# Thank you



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