Welcome to the Emerging Decentralized Economy.

Peers-to-Peers Economy
P2P Econonmy

PIP 2016 – Rabat – 13 July 2016

futuratinow
enabling the Next™

Anticipation | Disruption | Relevance

We help progressive AI-free C-level executive to Unlock, Anticipate, Design and Shape the future. We believe in AfterNow, Creativity, Simplicity, Common Sense, Collective Intelligence, Singularity & Fairness.

At the crossroads of #SinguLarity #ChIndiAfrica #Blockchain #LifeLongLearning #TransFormation #Cybersecurity & #GlobalAffairs.

Christopher Cordey
CEO Futuratinow
Founder of Yonders

futuratinow
enabling the Next

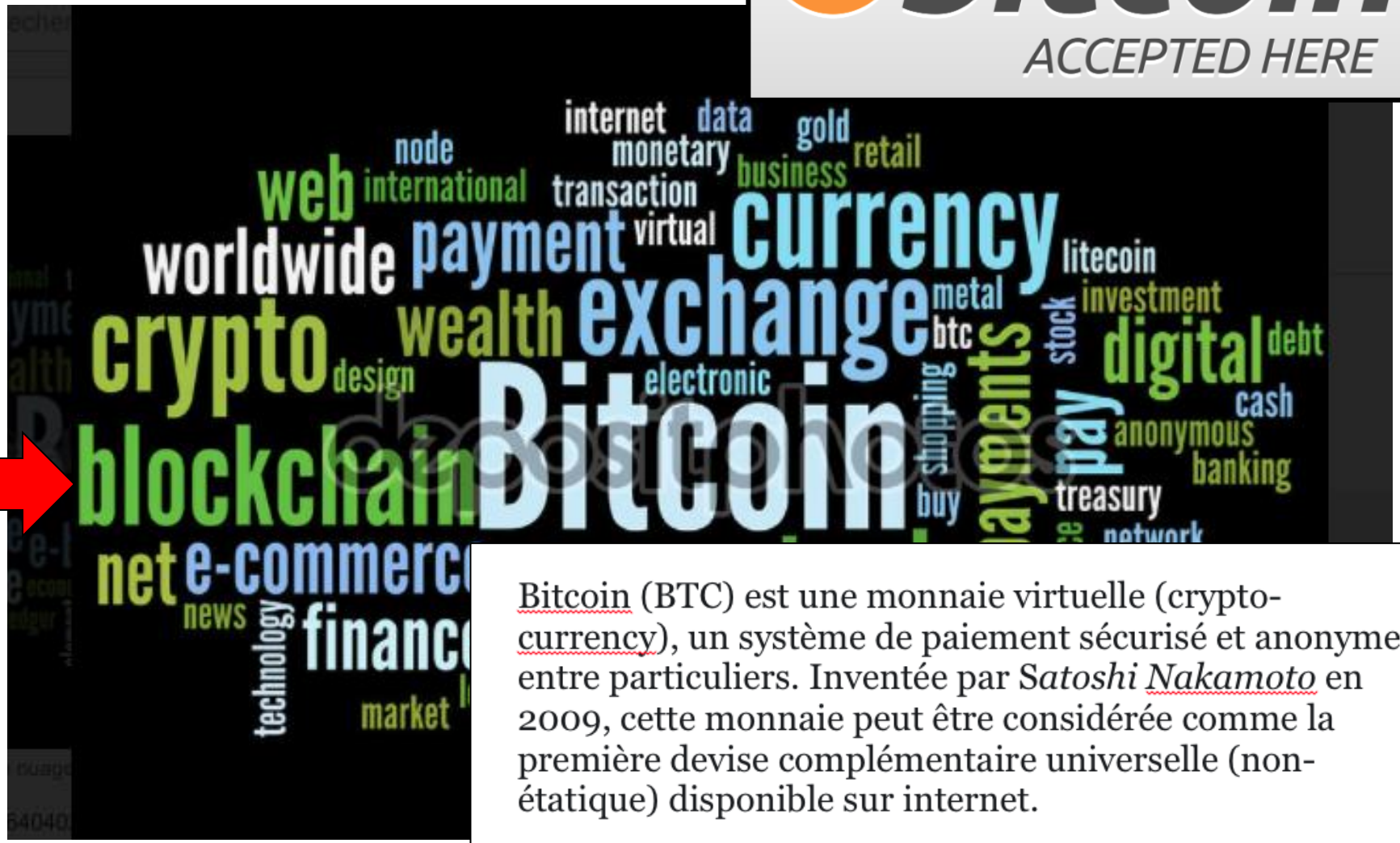
What if we could …

- Catch A Ride Without Uber?
- Book A Room Without Airbnb ?
- Remit cheaply money without Western Union ?
- Pay goods and services Without Paypal ?
- Store our data securely Without Dropbox ?
- Enjoy privately our social life Without Facebook ?
- Trade physical assets Without e-bay ?
- Bypass traditional retail banks ?
- Etc

- *Brief introduction to Blockchain technology*
- *Blockchain's current complex ecosystem*
- *Existing emerging applications*
- *Implications*

futuratinow™
enabling the Next

Au delà de Bitcoin …



Bitcoin (BTC) est une monnaie virtuelle (crypto-currency), un système de paiement sécurisé et anonyme entre particuliers. Inventée par *Satoshi Nakamoto* en 2009, cette monnaie peut être considérée comme la première devise complémentaire universelle (non-étatique) disponible sur internet.

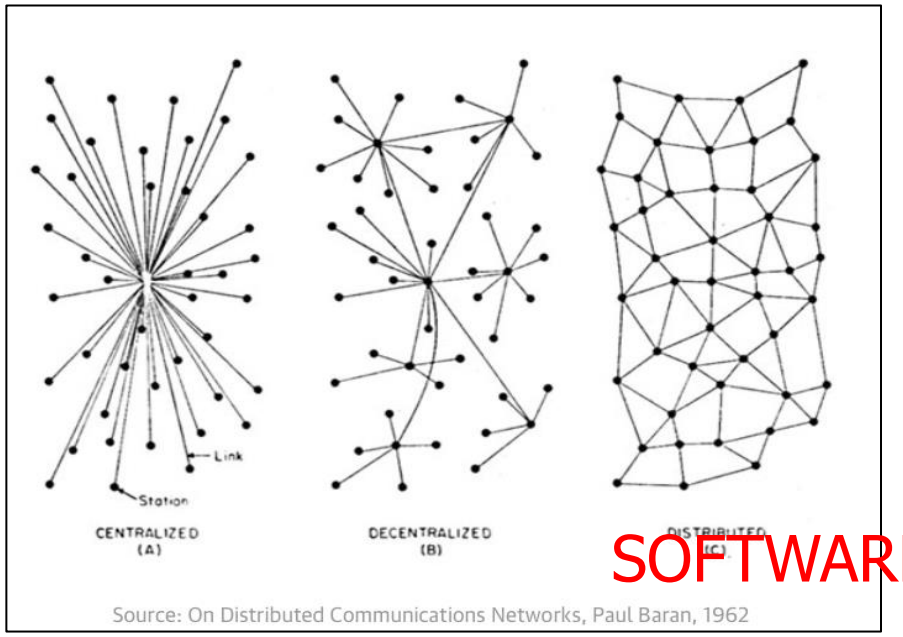
Peer-to-Peer money

futuratinow
enabling the Next

What is the Blockchain ?

Chaînes des blocs
Grand-livre

The blockchain is a public ledger built in a decentralized network structure based on cryptographic principles so that any kind of trading, buying and selling of assets does not need to go through a centralized intermediary.



Source: On Distributed Communications Networks, Paul Baran, 1962

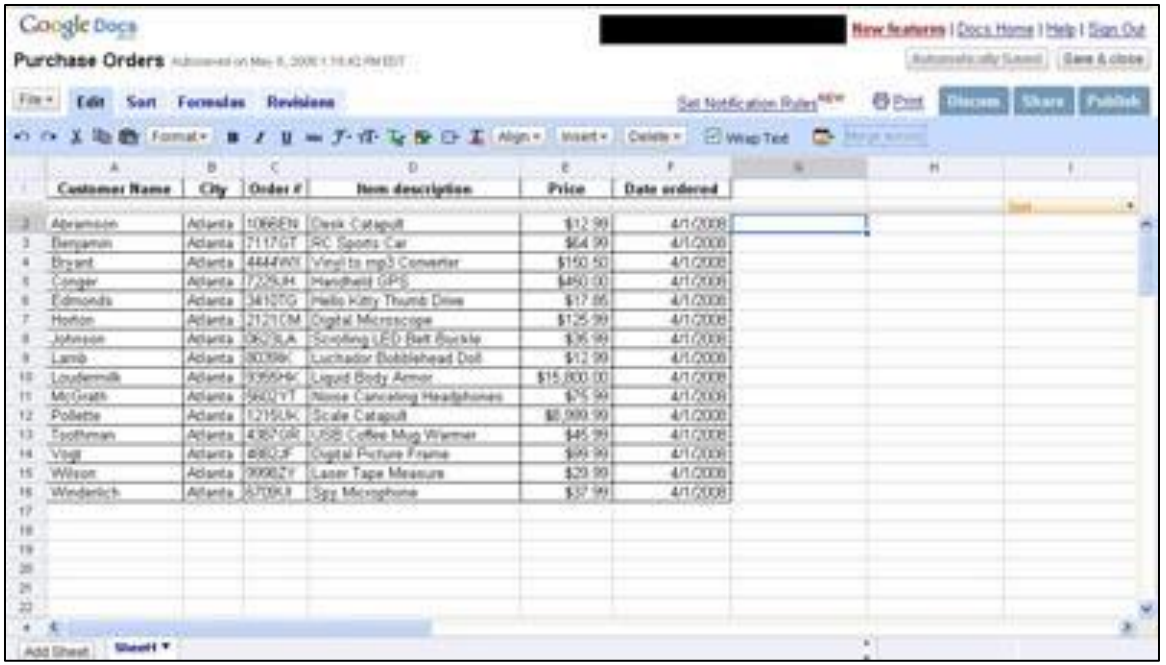
HARD ASSETS	INTANGIBLE ASSETS
Physical property	Votes, ideas, reputation
	Intention, health or civil data
	Information, etc

SOFTWARE PROTOCOL

futuratinow
enabling the Next

Blockchain : in other words

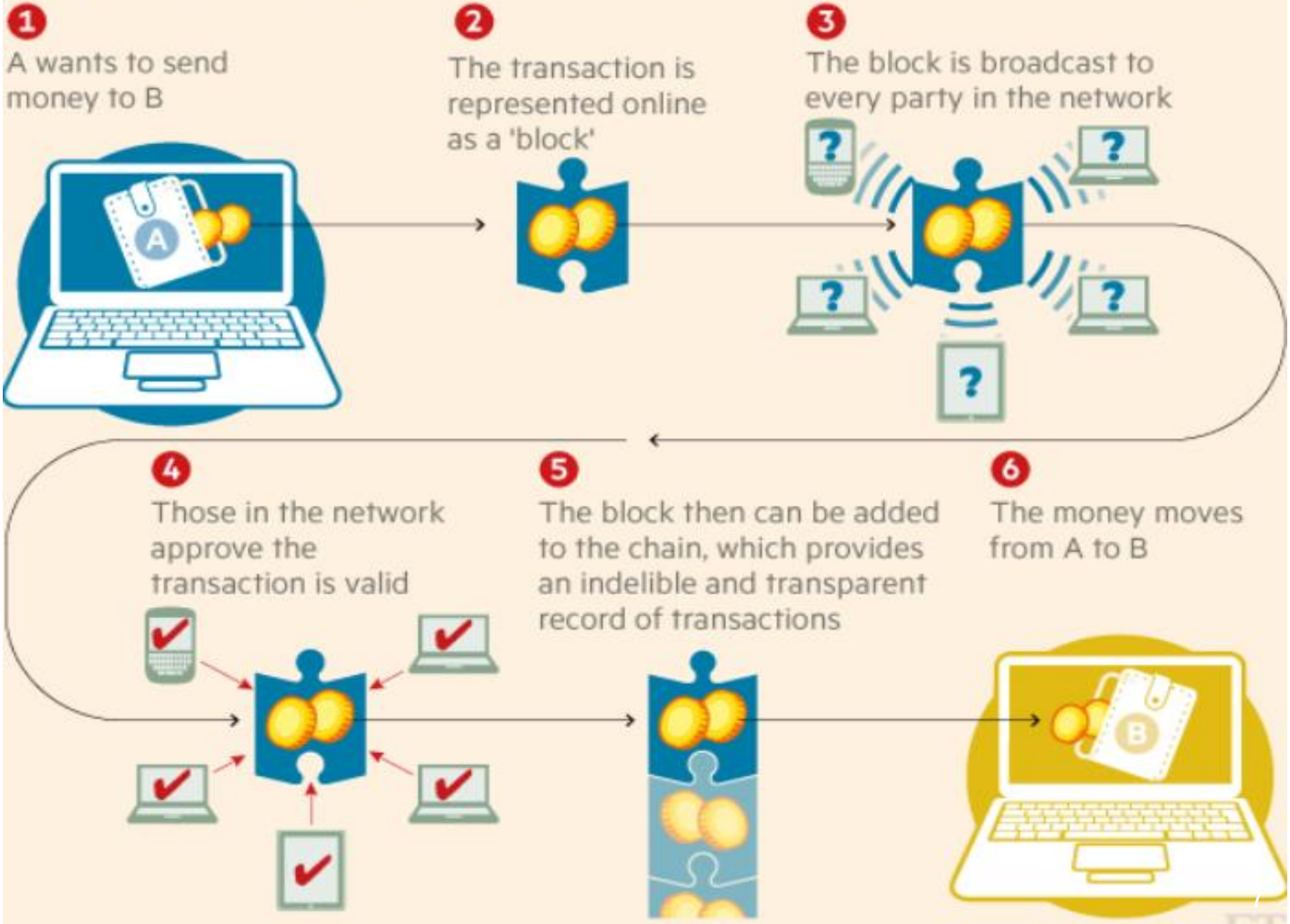
"**Giant interactive Google doc spreadsheet**" that anyone can view (encrypted transaction) and administrators (miners) continually verify and update to confirm that each transaction is valid



- **public visibility of encrypted transaction**
- **private inspection via personal code**

futurati now
enabling the Next

How a blockchain works



Balancingthe Benefits

① **Empowered users**
② **High quality data**
③ **Process integrity**
④ **Transparency and immutability**
⑤ **Ecosystem simplification**
⑥ **Faster transactions**

① **Large energy consumption**
② **Control, security, and privacy**
③ **Integration concerns**
④ **Cultural adoption .**
⑤ **Cost**

http://www2.deloitte.com/nl/nl/pages/innovatie/artikelen/blockchain-technology-9-benefits-and-7-challenges.html

futurati now
enabling the Next

2016 The Blockchain Ecosystem

Market Insight • Proposition Development • Customer Engagement • Product Launch

FirstPartner

Introduction

The blockchain combines cryptography & distributed computing to deliver secure, direct peer to peer transactions without the need for a central party. At its heart is the Distributed Ledger. This is a tamper proof, public, network-hosted, record of all consensus verifiedtransactions.

Initially realised via Bitcoin & similar "cryptocurrencies", focus & investment is now shifting to the potential of blockchain technology to revolutionise the infrastructure & processes of established Financial Institutions & other enterprises.

This Map summarises the key principles behind the blockchain & the emerging ecosystem addressing payments, banking & other potential use cases.

Blockchain numbers

$921million Cumulative VC investment in Bitcoin & blockchain companies to Oct 2015. $462 million of this in 2015 alone.[1]

$121million Largest cumulative funding total - raised by Bitcoin computer developer 21inc.[1]

805 Number of early stage Bitcoin & blockchain companies identified by Venture Scanner[2]

30+ Banks & Financial Institutions known to be testing, analysing or investing in the blockchain technologies[3]

11m Number of registered Bitcoin wallets in Sept 2015 - up from 6.6m in Sept 2014[4]

106,000 Number of merchants who accept Bitcoin[4]

$4.9bn Bitcoin capitalisation Nov 2015. Bitcoin accounts for around 90% of the capital value of all cryptocurrencies[5]

$2.7bn value of Bitcoin trading in Sept 2015[6]

475 Bitcoin ATMs installed worldwide[7]

Sources:
1 CoinDesk & Crunchbase
2 Venturescanner.com reviewed Nov 2015
3 FirstPartner research
4 CoinDesk State of Bitcoin Report Q3 2015
5 Blockchain.info checked 16th Nov 2015
6 Bitcoinity.org
7 Coin ATM Radar checked Oct 2015

Author: Richard Warren
rwarren@firstpartner.net

Like what you see?
Contact us for in-depth insight into your target markets!

Contacts: hello@firstpartner.net
+44 (0) 870 874 8700
@firstpartner
www.firstpartner.net

Copyright FirstPartner Ltd 2015

Payment Use Cases

Retailing | Person 2 Person | Remittances | Financial Inclusion | Interbank Clearing | Forex | Resilience | Trading & Markets

The Cryptocurrency Ecosystem

Specialist companies facilitating transaction validation, currency exchange, storage & payment on existing cryptocurrency newtworks (primarily Bitcoin)

Users

Wallets: Blockchain, Xapo, Armory, bitreserve, case

Bitcoin Debit Cards: WageCan, PRO

BitCoin ATM: LAMASSU, genesiscoin, BITACCESS

International Remittance: ABRA, BitPesa, RE-BIT

Merchants

Merchant Payment Processing: Bitcoin PoS, PE¥, DC POS

Bitcoin Processing: Bitnet, GOCOIN, bitpay

Risk & Fraud Management: Vogogo

PSPs Supporting Bitcoin: PayPal, adyen, Braintree, stripe

Exchanges: BITFINEX, kraken, LocalBitcoins.com, BITSTAMP, HUOBI.com, BTC

Multiservice Companies (Mining, Exchange, Wallet, Processing): coinbase, CIRCLE, BITX, BTCC, DAMMIUM

Mining

Mining Technology & Commercial Operations: 21 INC, KnCMiner, BitFury, spondooliestech, BTCS, HASHRABBIT

Mining Pools: - GhashIo - F2Pool - AntPool - SlushPool

Established Financial Ecosystem

Regulated financial institutions & platform vendors exploring blockchain technology as an alternative to centralised & correspondent payment processing

Money Transfer Operators: Western Union

Market Makers

Securities Markets: Nasdaq

Retail & Commercial Banks: Barclays, Deutsche Bank, Bank of America, BNP Paribas, fidor BANK, BBVA, citi, HSBC, ING, J.P.Morgan, RBS, UBS, Santander

Central Banks & Initiatives

Liquidity Provision | National Clearing | Compliance | Policy

The following major central banks have undertaken assesments or issued statements on regulation, potential risks to financial systems and/or benefits but none yet has a definitive policy stance.

- Bank of England
- Banque de France
- Deutsche Bundesbank
- European Central Bank
- The Federal Reserve
- Monetary Authority of Singapore
- People's Bank of China
- Reserve Bank of India

Card Schemes: VISA, MasterCard, American Express

Interbank Networks: earthport

Enabling the Financial Services Blockchain

Commercial platforms & services targeting Financial Institutions

Securities & Derivatives & Asset Trading Platforms: Smart contracts & blockchain for transparent trading & post trade settlement: Mirror, symbiont, clearmatics, HEDGY, SETL

The R3 Consortium: Technology led initiative of 30+ banks to design & apply distributed ledger technology to global financial markets

Institutional Investment: TradeBlock, itBit, SolidX

Financial Intrastructure & APIs: Enable implementation of private Blockchains/ sidechains &/or the development & securing of financial applications: BLOCKCYPHER, eris, Gem, ripple, Digital Asset Holdings, Chain, Blockstack.io

Bitcoin Based Cryptocurrencies

Bitcoin
Created as an alternative to central bank controlled fiat currencies. Bitcoin was the first working Cryptocurrency. It remains dominant but lack of scalability and other inherent flaws will likely prevent mass adoption.
Validation: Proof of Work
Latency: 10 minutes
Currency: BTC - on and off-network
Issuance: Mining Reward. 21M Limit

Litecoin
Consensus: Proof of Work
Latency: 2.5 minutes
Currency: LTC - on and off-network
Issuance: Mining Reward. 84M Limit

Dogecoin
Consensus: Proof of Work
Latency: 1 minute
Currency: Doge - on & off-network
Issuance: Mining Reward. Unlimited

Ripple
Consensus based protocol designed specifically for existing financial institutions. Supplementing existing processes & directly suporting fiat currencies, lead use cases are international paymemts & inter financial institution settlement
Validation: Distributed consensus
Latency: 3 seconds
Currency: XRP on-network only
Issuance: At inception -100 BN units created.

Ethereum
Smart contract & distributed app focus
Validation: Proof of Work
Latency: 12 seconds
Currency: ETH on-network only
Issuance: Mining Reward

Stellar
Ripple derivative. Financial focus
Validation: Distributed consensus
Latency: 2-5 seconds
Currency: Lumens on-network only
Issuance: 100 Bn then 1% issued PA

Open Protocols for Institutions

Blockchain

Distributed P2P Networks

The Distributed Ledger

Anatomy of a Transaction

1 Initiation (sender): Transaction Instruction -prior transaction(s) -recipient address -value & conditions -digital signature

2 Verification (the network): nodes or miners: -propogate -group into "candidate blocks" -validate signatures -verify through "consensus"

3 Completion (recipient): Verified Block "Value" blockchain

Protocol Components

The Currency
The medium for transaction settlement within the newtork & rewarding miners. Cryptographically generated, protocol rules determine issuance & destruction. May be tradeable "off the newtork" (e.g. Bitcoin) or only exist on network (e.g. XRP)

The Ledger
AKA the Blockchain. A Public record of all transactions - stored across a distributed P2P network of servers. Verified transactions are added in "blocks" and the history provides proof of value or assets "owned".

Consensus
Prevents "double spend" or validation of fraudulent transactions:
Proof of work: miners compete to validate blocks by solving highly processor/RAM intensive cryptographic problems for reward
Distributed consensus: majority validation by trusted subnetworks of peer nodes within the network. Used by Ripple & Stellar
Proof of stake: achieves distributed consensus by network users proving their ownership of currency. Used by Peercoin & Bitshares

Crypto 2.0 - Building on the Bockchain

Smart Contracts
Encode & validate "conditions" for a transaction between parties. Potentially facilate legally binding transactions over the blockchain
consensys, CLEARINGHOUSE, Counterparty, CODIUS

Colored Coins & Open Assets
Bitcoins altered to represent an asset. Exchanged via the Open Assets Protocol. Allows trading of physical & other assets
coin, ChromaWay, Omni, coinprism

Core Blockchain Protocols
bitcoin, stellar, ripple, DASH, ethereum, Peercoin, VIACOIN

Enabling Layers
Protocols, platforms & SDKs that build on top of core blockchain protocols to enable additional transaction types & services

Protocol Commercialisation
Consensys: building an Ethereum based ecosystem & partnered with Microsoft for Ethereum Blockchain as a Service

Ripple: facilitating multiple Financial institutions focussing on payment solutions

Other Use Cases

IoT — Registering and validating connected devices
FILAMENT, IBM, SAMSUNG

Data — Distributed storage of and access to business data
factom, MaidSafe, STORJ.IO

e-Identity — Registering and validating individual identity
ShoCard, stampery, Bitproof.io

Legal — Executing smart legal contracts

Crowd Funding — Raising finance & distributing equity
lighthouse, OpenBazaar, LeZoo

Market Places — Trading & sharing of physical & digital assets & services
BLOCKPARTY, ALEXANDRIA, BISANTYUM

Publishing — Digital asset rights management, distribution & payment

Proof of Ownership — Tamper proof registration & "stamping" of physical & digital assets

Data & Analytics

COINALYTICS, BLOCKCORP, blockr, KAIKO, bitcoin charts

Key Security/HSMs

gemalto, THALES

Balancingthe Benefits

Blockchain Benefits
- Ecosystem simplification
- Faster interbank clearing & settlement
- Lower transaction costs
- Reduced counterparty risk
- Transaparency & auditability
- Ease of software development/integration

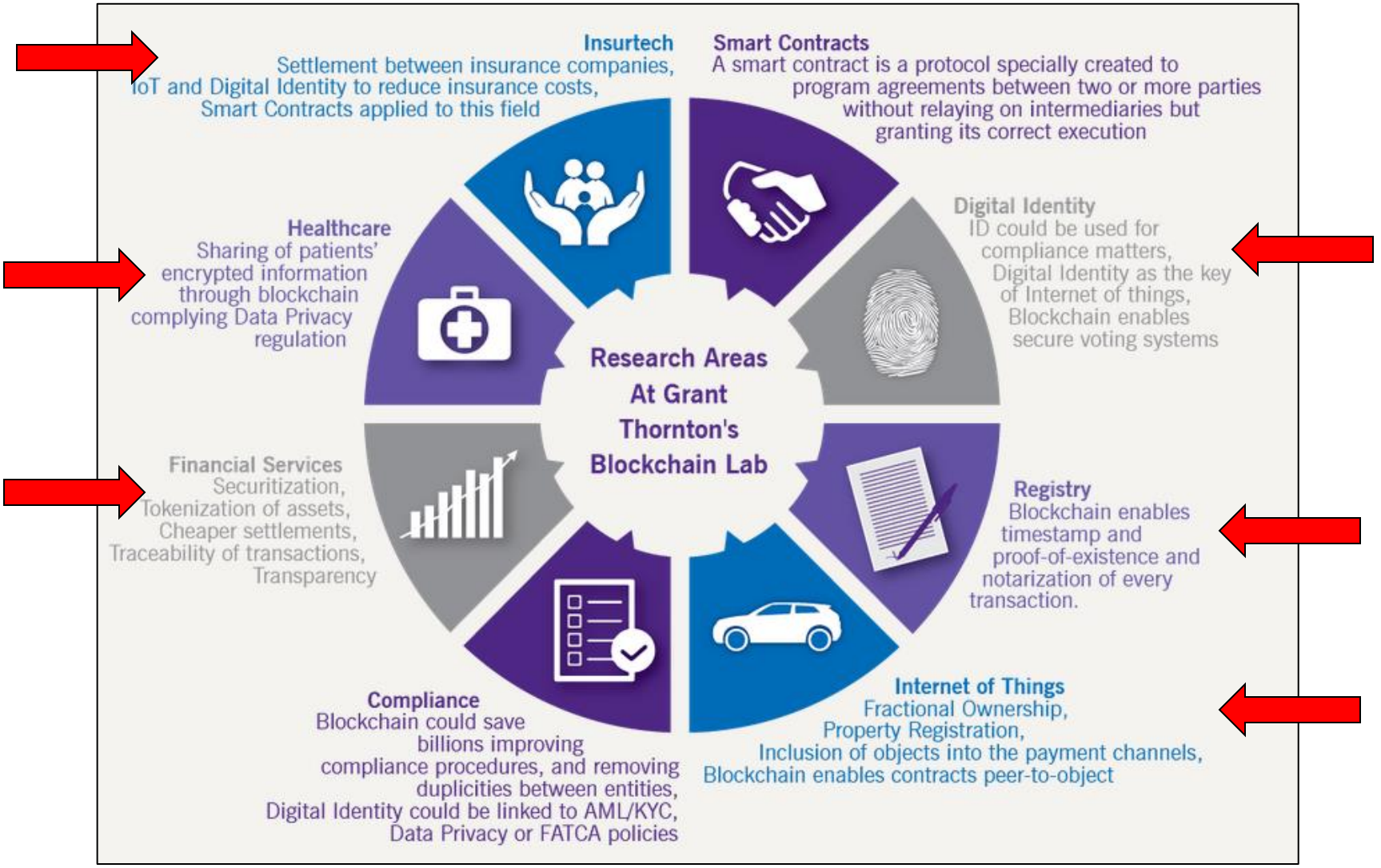
Vs.

Risks
- Unproven technology
- Untested capacity/scalability
- Low transaction speed
- Possible concensus protocol flaws
- Cryptocurrency price volatility
- Uncertain regulatory status

Investors

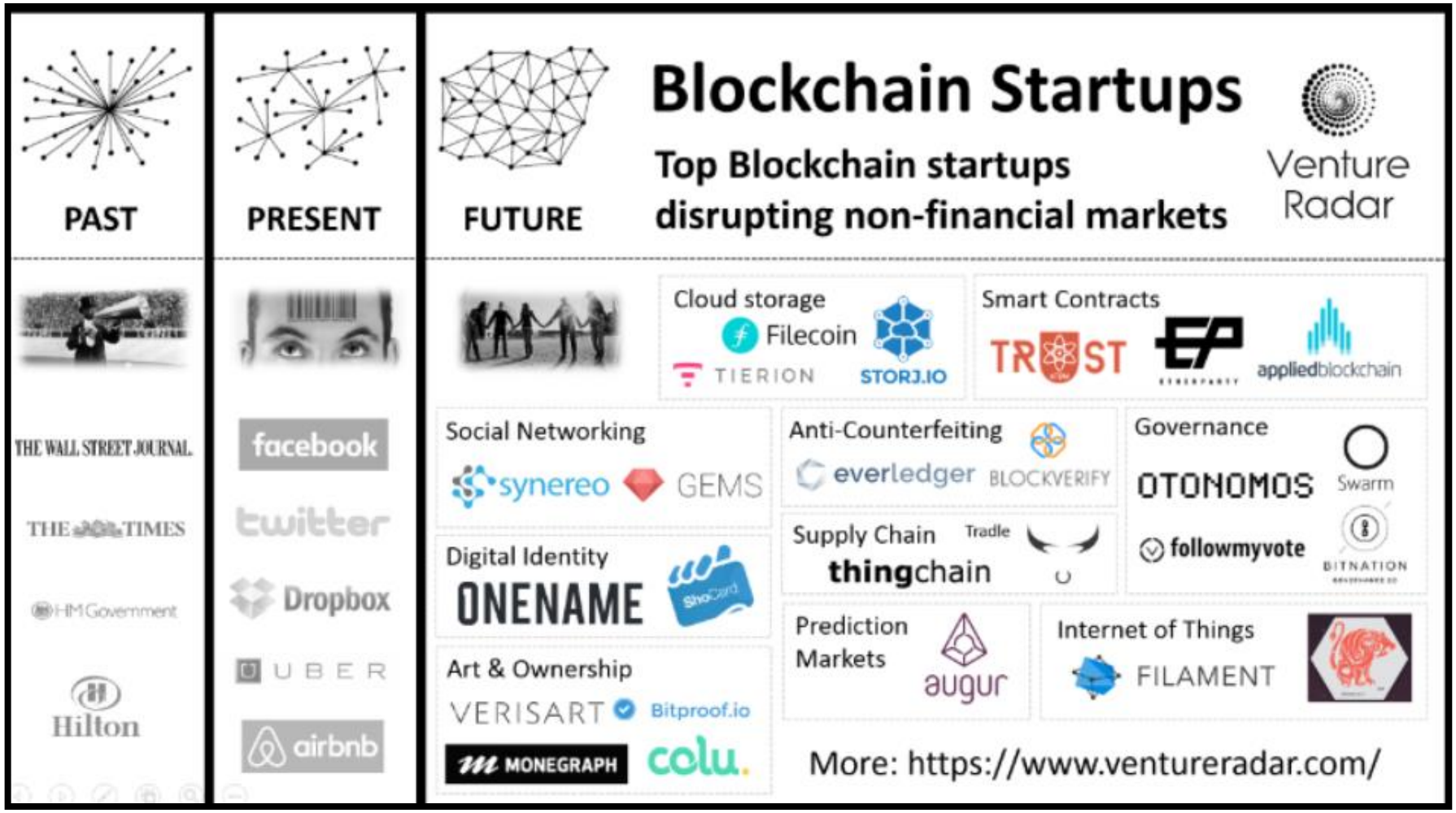
ANDREESSEN HOROWITZ, BLOCKCHAIN CAPITAL, overstock, Google ventures, LIGHTSPEED VENTURE PARTNERS, AME CLOUD VENTURES, DIGITAL CURRENCY GROUP, PANTERA

Numerous area of potential uses

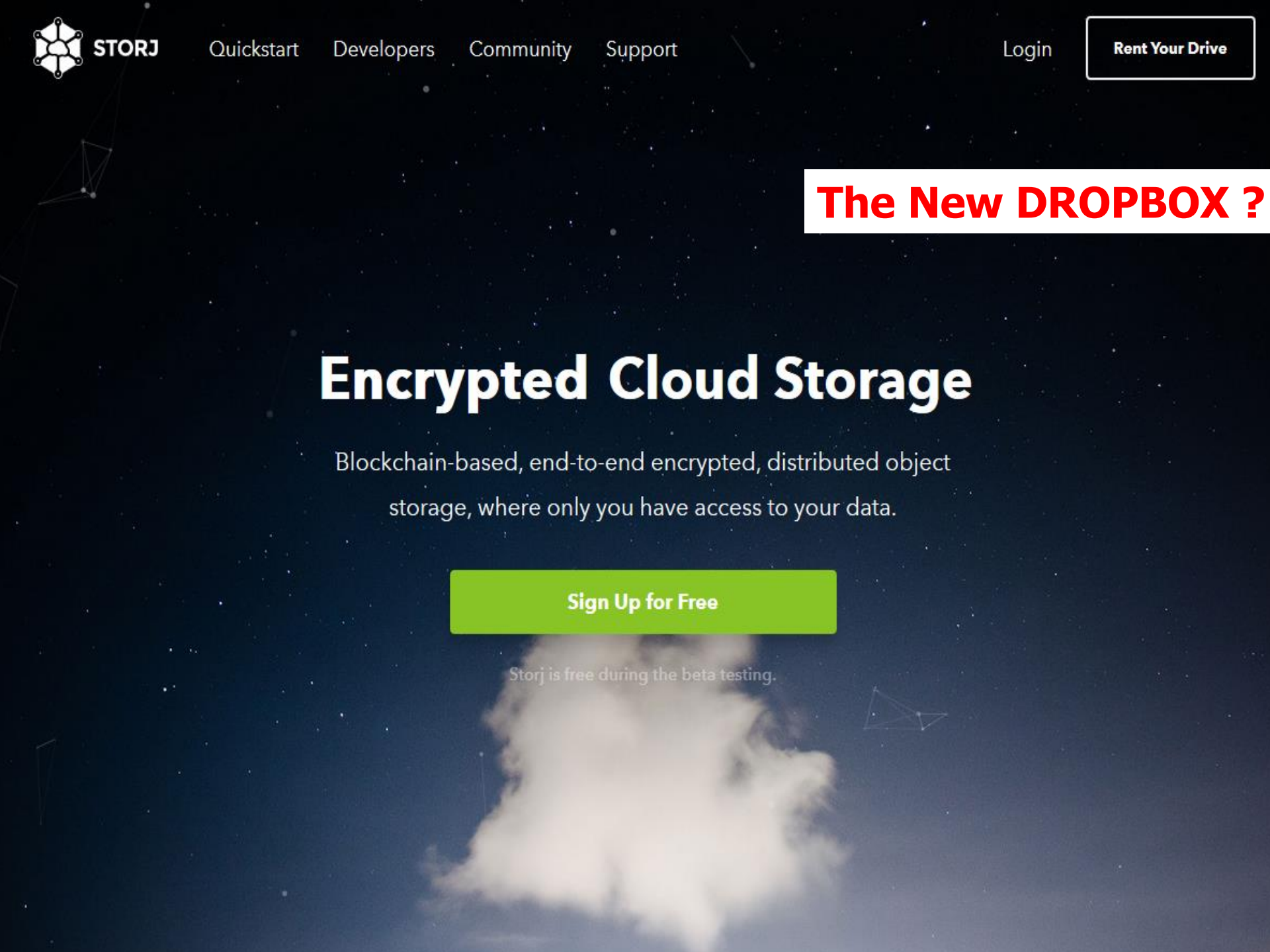


futuratinow
enabling the Next™

Blockchain Startups



futuratinow
enabling the Next


STORJ
Quickstart
Developers
Community
Support
Login
Rent Your Drive
The New DROPBOX ?
Encrypted Cloud Storage
Blockchain-based, end-to-end encrypted, distributed object storage, where only you have access to your data.
Sign Up for Free
Storj is free during the beta testing.

OpenBazaar

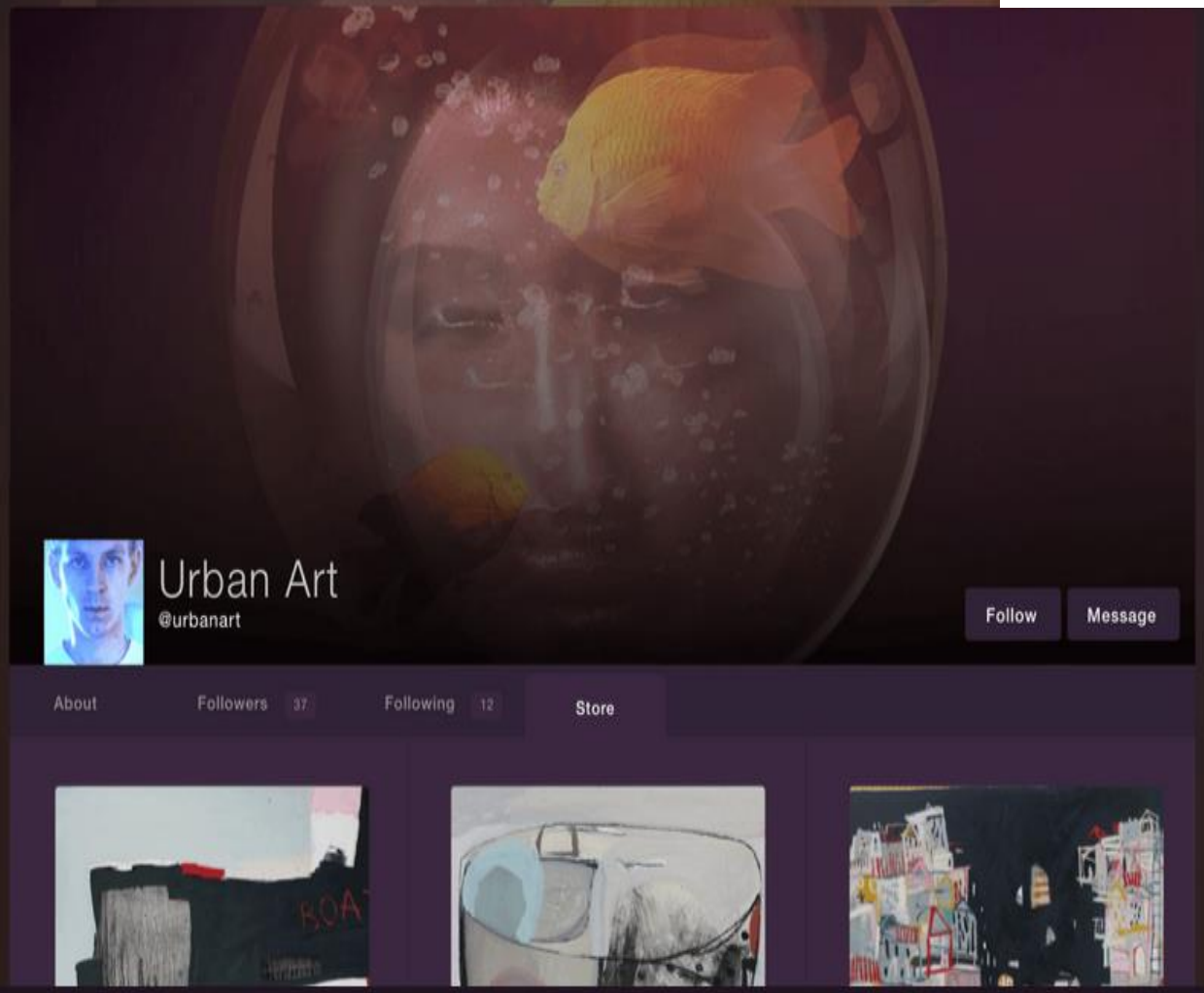
A Free Market for all.

No Fees. No Restrictions.

DOWNLOAD

It's open sourc

The New e-bay ?



ABOUT US

La`Zooz

A Decentralized Transportation Platform owned by the community and utilising vehicles` unused space to create a variety of smart transportation solutions. By using cryptocurrency technology La`Zooz works with a "Fair Share" rewarding mechanism for developers, users and backers.

RideSharing vision

La`Zooz platform will synchronize empty seats with transportation needs in real-time, matching like-minded people to create a great ride-sharing experience for a "Fair fare".

The Road

is being paved by people like you and me.
Taking part makes La`Zooz come alive.

The New UBER ?

synereo

HOME LEARN MORE WHITEPAPER BLOG DISCUSS ABOUT US CONTACT US

Synereo is a fully decentralized and distributed social platform

OWNED BY THE PEOPLE WHO USE IT.

The New Facebook ?

Next-gen social platform

Your attention is scarce, precious and powerful.
It's time for it to work for you.

Fully decentralized

There's no single point of failure.
The network cannot be taken down or hijacked.

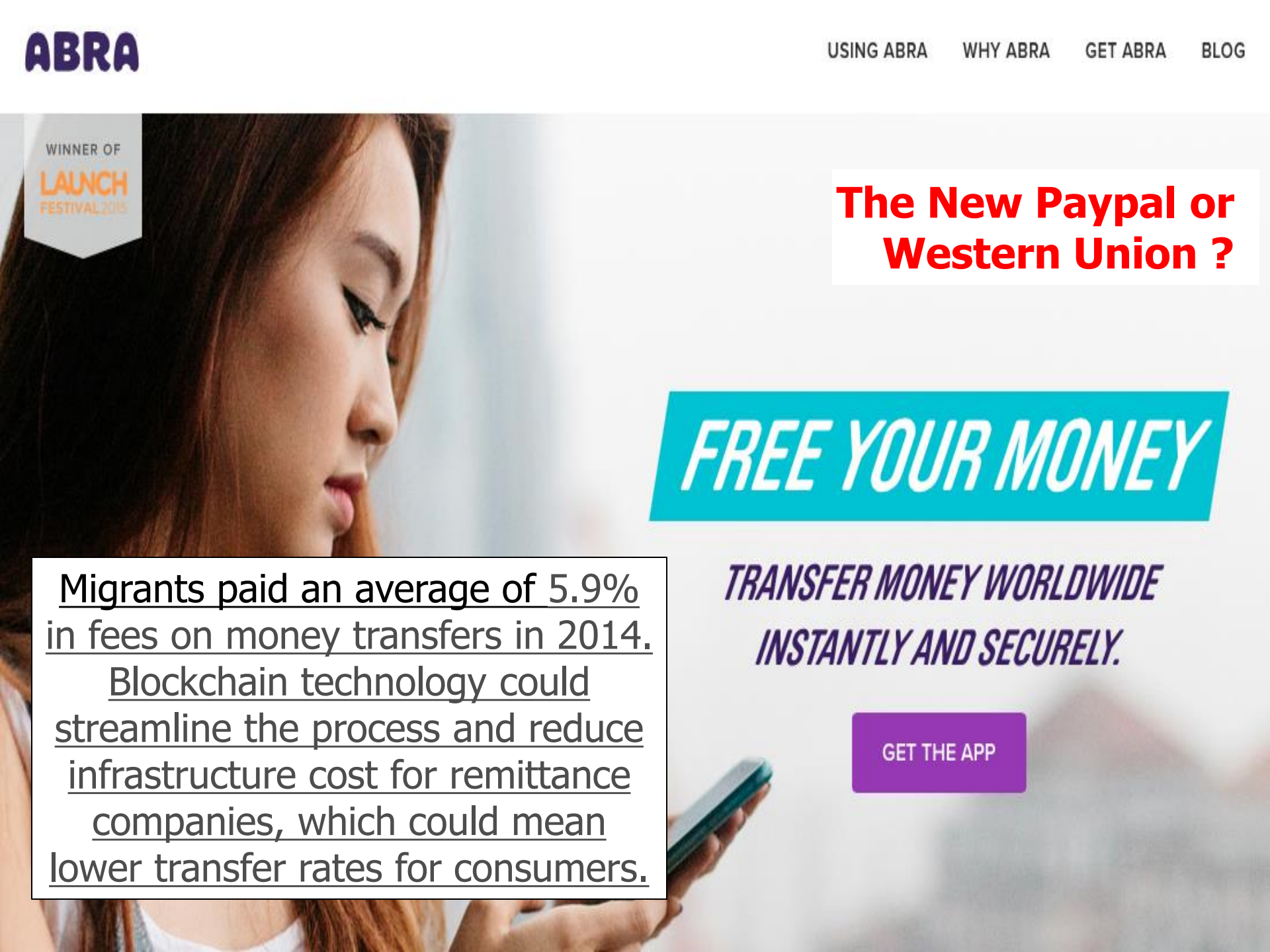
Be who you want

Your self-expression varies across networks. Construct and present your identity as you see fit.

Your data is yours

Completely spy-proof.
Only you decide who can view your profile and content.

SIGN UP FOR UPDATES

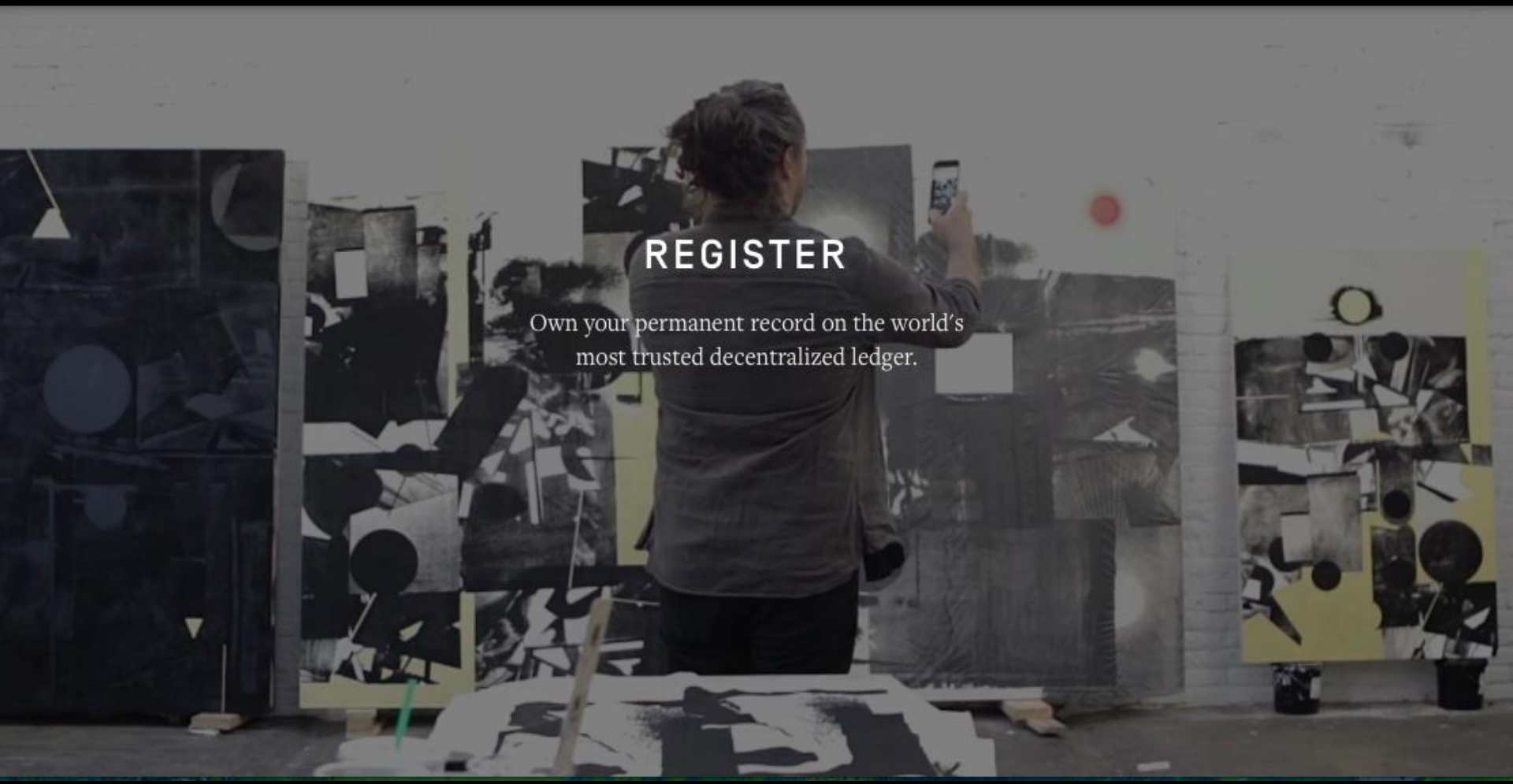

ABRA
USING ABRA
WHY ABRA
GET ABRA
BLOG
WINNER OF
LAUNCH
FESTIVAL 2015
The New Paypal or
Western Union ?
FREE YOUR MONEY
TRANSFER MONEY WORLDWIDE
INSTANTLY AND SECURELY.
GET THE APP
Migrants paid an average of 5.9% in fees on money transfers in 2014. Blockchain technology could streamline the process and reduce infrastructure cost for remittance companies, which could mean lower transfer rates for consumers.

Education

- Education
- Knowledge works

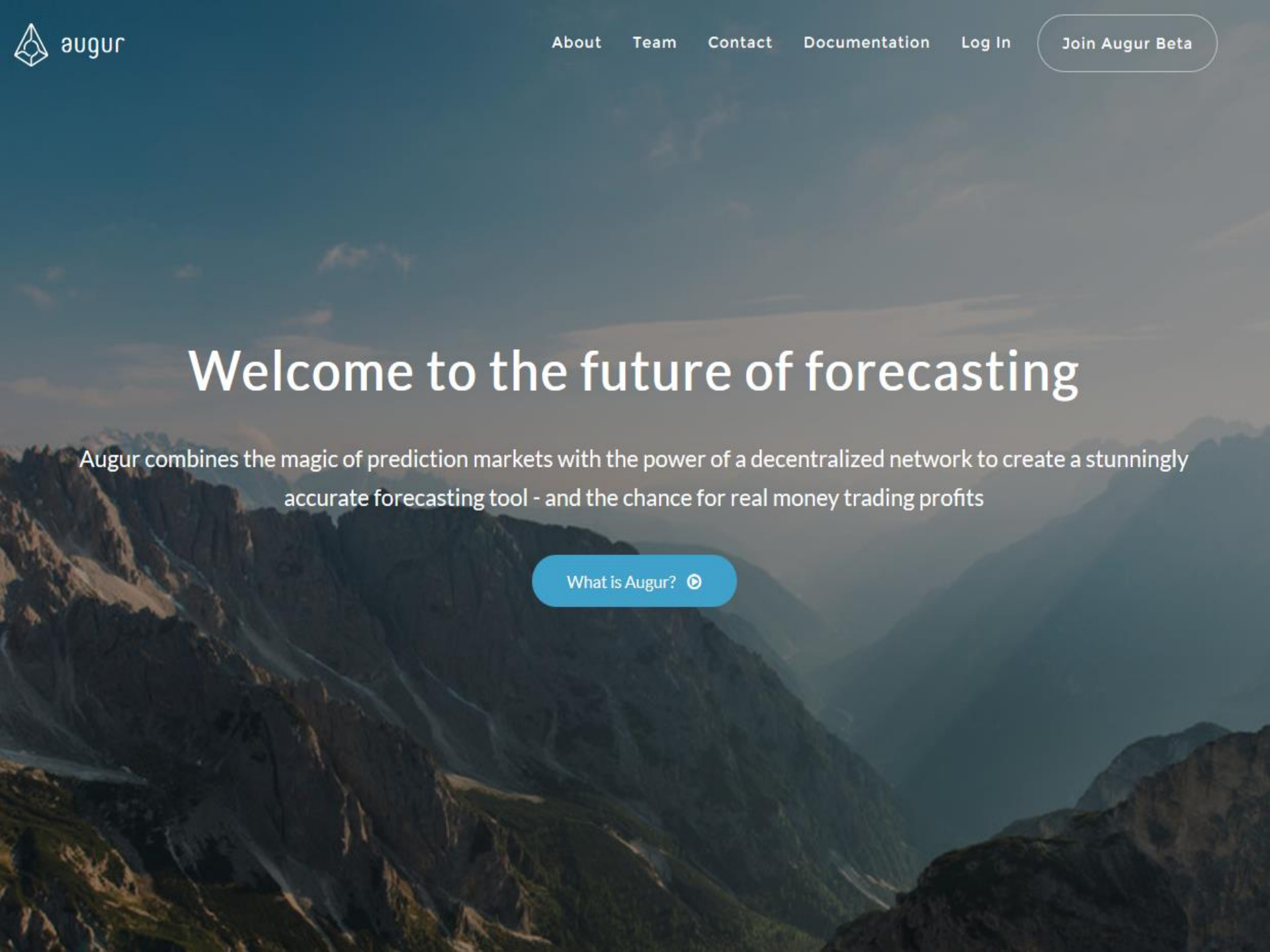
VERISART™

REQUEST INVITE



REGISTER

Own your permanent record on the world's most trusted decentralized ledger.


augur
About
Team
Contact
Documentation
Log In
Join Augur Beta
Welcome to the future of forecasting
Augur combines the magic of prediction markets with the power of a decentralized network to create a stunningly accurate forecasting tool - and the chance for real money trading profits
What is Augur?

Governments' interests

GOV.UK

Blog

Government technology

Organisations: Government Digital Service

Blockchain: exploring uses government

Rosie Jessop, 20 April 2016 — Technology Transformation

Dubai Establishes Gov't Backed 'Blockchain Council'

By *Jamie Redman* - February 19, 2016 4050 1

Home › News › UK Isle of Man Government Bullish on Blockchain

News

UK Isle of Man Government Bullish on Blockchain

By Richard Kastelein - May 5, 2016 141

J'aime 8 Tweet

Home ▸ News ▸ Crypto News ▸

Dutch Government Announces Blockchain Development Campus

Dutch Government Announces Blockchain Development Campus

JP Buntinx July 4, 2016 Crypto News, News

BLOCKCHAIN / MIJIN / NEM

Japan's Trade Ministry: Government Should Promote Blockchain Use Cases

BY BRAINOFMASSES · JUNE 2, 2016

China Joins the Blockchain Race With ChinaLedger Alliance

May 02, 2016 03:56 PM by Andrew Quentson

US Department of Homeland Security Talks Blockchain R&D

Pete Rizzo @pete_rizzo_ | Published on July 10, 2016 at 17:08 BST

FEATURE

364 99 3 44

e-Estonia.com The Digital Society

WELCOME TO ESTONIA

The story Components Case studies Showroom ICT industry Facts News Toolkit e-Resident

Apply to e-Residency

Estonian e-Residency

ABOUT SERVICES & BENEFITS APPLY FOR DEVELOPERS PRESS KIT CONTACTS HELP

What is

"e-Resident digital iden online, unl

The Republic of identity available business online. facilitate credibil

IBM Unveils Cloud-based Blockchain Services For Government And Healthcare

4:45 pm April 29, 2016 JP Buntinx Bitcoin, Blockchain Technology, News

13 SHARES

Addressing these security needs is done through a variety of means, as they aim to offer the blockchain to government, healthcare, and financial players over the coming months and years.

futuratinow enabling the Next™

Public Records Applications

- Public Records
  1. Land titles
  2. Vehicle registries
  3. Business incorporations
  4. Criminal records
  5. Passports
  6. Birth certificates
  7. Death certificates
  8. Voter Registration
  9. Voting Records
  10. Health/safety inspections
  11. Building permits
  12. Court records

Bitland

GHANA

Bitland is currently (also) developing a Global Blockchain Cadastral System so the Bitcoin-Blockchain Technology can be offered on a large scale .. for example all African nations. Bitland's efforts will likely (also) uncover vast amounts of money in unknown real estate rights.

Bitland Ghana
@realestateghana

MILLIONS OF GHANIANS CAN NOT RELY ON CADASTRAL LAND COMMISSION CERTIFICATES => @realestateghana #BLOCKCHAIN !!!!

12:55 AM - 28 Mar 2016

Bitland Ghana
@realestateghana

GHANIANS CAN NOW RELY ALTERNATIVE CADASTRAL LAND CERTIFICATES WITH #BLOCKCHAIN !!!! @realestateghana

1:03 AM - 28 Mar 2016

futuratinow
enabling the Next

NGO collective Start Network testing rapid response humanitarian crisis funding using blockchain

By Ian Allison

April 21, 2016 19:42 BST

ethereum

BoardRoom

START NETWORK

CONSENSYS

Non-governmental organisation collective Start Network and ConsenSys have launched a pilot project to test blockchain technology to enable member NGOs make more efficient and transparent decisions about funding for crisis responses.

In conclusion

① Blockchain is an emerging, disruptive and transformative technology; a **true game-changer** with major future global implications.

② Blockchain is an **equality technology** that allow more possibility for individual liberties, freedoms, rights, actualization, expression, and self-determination than has been possible in hierarchical models.

③ A nascent technology that might **re-architect the deep structure of companies** for innovation, shared-value creation and even prosperity for many rather than just wealth for the happy few.

④ The most contentious conflicts (and partnerships) will be between **startups** that are completely reengineering decades-old practices, and **traditional power** players from the private and public sectors.

⑤ **No firms or States are immune** from the coming disruption and should have a strategy to harness the powerful advantages of the blockchain revolution.

futuratinow™
enabling the Next

What if ...

MERCI pour votre attention !

We were moving from an internet driven primarily by the falling costs of search, coordination, data collection and decision making – where the name of the game is **monitoring, mediating and monetizing information and transactions** on the web to...

?

... one driven by the falling costs of bargaining, policing and enforcing social and commercial agreements, where the name of the game will be **integrity, security, collaboration, the privacy of all transactions, and the creation and distribution of value**

D & A . Tapscott

futuratinow™
enabling the Next