







CYBER SECURE



The initial and most basic solution: **Blockchain as a Registry**!





Blockchain 2.0 introduces:

Smart contracts is a **functionality** of blockchain that **allows to program contracts** that are **self executing** for **automatic actions, based** upon simple **conditional statements** of the type "If Then Do That".



Next Level is: <u>Blockchain as a Token Economy</u>

Token = Digital representation of any asset within the Blockchain

Represent: Tangible Goods, Rights, Ownership, Money, etc.



- Where there is low trust established between the Parties
- Valuable to **Decentralize** the **Information**
- Important that the data is **Immutable**
- High need for **Cybersecurity**
- Need for **Transparency** in the access to the information
- Relevant with **Automated Processes**

"Smart Cities are cities that use **information and communication technology** for their **administration** and the **services** they provide, for a better **economic**, **social** and **environmental** development."

They are also Cities that needs to:

- Fight Corruption
- Improve the data transparency and security
- Fulfil demands on citizens privacy
- Be more **efficient** in administration
- Improve citizens participation



If we combine:

BLOCKCHAIN + SMART CITY = All these things can be achieved!

LETS SEE HOW!



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It's not just for financial institutions; government agencies can use this digital ledger technology to protect trusted records and simplify interactions with citizens.

A nimportant function of government is to maintain trusted information about individuals, organizations, assets, and activities. Local, regional, and national agencies are charged with maintaining records that include, for instance, birth and death dates or information about

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Article - McKinsey Quarterly

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- 3 administrative and process-oriented elements of governing:
 - **Top-Down:** Methods that primarily involve governments and the state bureaucracy
 - Networks: Involving public-private partnerships (PPP) and/or collaboration of community organisations.
 - **Regulation:** Market principles of competition serve to allocate resources while operating under government regulation

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- Blockchain for Top-Down state bureaucracy
- Here the main use of BLOCKCHAIN is for Pure Registry Functions: Accounting, Contracts, Registries, etc.



IMMUTABLE



CYBERSECURE



HEREPERENCE

SMART GOVERNANCE

- E-Government
- E-Administration
- Open Data
- Citizens Participation
- Urban Design
- Land Registery

SMART ECONOMY

- E-Commerce
- Colaborative Economy
- Decentralized Economy
- Entrepreneurship

SMART LIVING

E-Education

• E-Culture

• E-Security

- E-Health
- E-Tourism

- **SMART ENVIRONMENT**
 - Air & Water Quality
 - Green Environment
 - Green Building
 - Smart Grids

SMART MOBILITY

- Smart Traffic Control
- Multi Modal Transport
- Car Sharing Models
- Sustainable Transp.



Named 'the most advanced digital society in the world' by Wired, ingenious Estonians are pathfinders, who have built an efficient, secure and transparent ecosystem that saves time and money. e-Estonia invites you to follow the digital journey.

LEARN HOW



December 2016

DUBAI BLOCKCHAIN STRATEGY

The Dubai Blockchain Strategy, launched by His Highness Sheikh Hamdan, is a result of a collaboration between the Smart Dubai Office and the Dubai Future Foundation to continually explore and evaluate the latest technology innovations that demonstrate an opportunity to deliver more seamless, safe, efficient, and impactful city experiences.

Blockchain technology is a new, powerful tool that is already shaping the future of the Internet with simple, safe and secure transactions. The Dubai Blockchain Strategy will help Dubai achieve the vision of His Highness Sheikh Mohammed bin Rashid Al Maktoum, to create the future of Dubai, and make Dubai the happiest city on earth.

New Wave of Economic Opportunity & Digital Innovation

The Dubai Blockchain strategy will usher in economic opportunity for all sectors in the city, and cement Dubai's reputation as a global





BIGCHAIN ^{DB}

Features Developers ∨ Services



Blockchain Powered Land Registry in Ghana with BenBen

BenBen is building a land registry in Ghana to help lock in property rights for citizens.

D We're hiring!

Canada Is Ready To Be a Global Environmental Leader Using Blockchain

IBM China Wants to Use Blockchain to Fight Carbon Emissions

Tutellus
ICO preSale launched!

Image: Stan Higgins

Image: Stan Higgins
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IBM and a China-based firm are using blockchain to build a prototype marketplace for carbon assets.

The company is working with Energy Blockchain Labs, a blockchain company that has tested



As 2017 ends, 194 out of 195 countries have signed the Paris Agreement on climate change, including Canada. The United States is the only country not in the agreement after the election of President Donald Trump.

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Blockchain for Networks: Both a **Registry** and **Token Model** with Smart Contracts.

1. The Government decides a budget for different areas and specific use.

2. The exact number and types of Tokens are generated.

3. Tokens are distributed to the digital wallets (app) of the citizens.

- **3.** The Smart Contract automatically:
- a. Return the Social Token to the Government
- b. Withdraw the value from the Governments Digital Wallet
 - c. Pay the store for the Token

• Enables a more specific wealth distribution model:

- Give Properties to the tokens: For What, When, Where they can be used
- Use Smart Contracts to: Set Rules for their use, Define what happens when..., etc.

• Automated Allocation of Tokens:

- More Efficient (faster, cheaper)
- More Fair (objective)

• Automated Handling (Smart Contracts):

- Save time & human resources
- Big Data / Data Analytics / AI:
 - Analyse the impact of the distribution: learn + change rules

• Advantages for end users:

- Faster handling
- Anonymous: The service provider will not know that you pay with a token or "money"
- All in one place (App)
- Less costly administration
- More relevant services

Digital Currency

Shanghai Banking Corporation Limited, J.P. Morgan, Mitsubishi UFJ Financial Group, OCBC Bank, R3, Singapore

Blockchain-enabled voting has started in West Virginia

The state's overseas voters started casting ballots using a mobile app that runs on the decentralized ledger last Friday.

(Getty Images)

West Virginia residents living overseas have started casting their ballots this November's elections using a mobile app that runs on blockchain encryption, state officials announced Monday. The votes that have come in

CRYPTO MINING

By Molly Jane Zuckerman

JUL 03, 2018

Zug's Head of Comms Calls City Blockchain Voting Test a 'Success', Despite Low Turnout

The Swiss city of Zug's first local blockchain-based municipal vote has been successfully completed, the Swiss News Agency reported vester day, July 2

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① 11 July

On the 20th of June 2018, THEKEY, the Ministry of Human Resources and Social Security (MHRSS) of the People's Republic of China, and the China Social Insurance Association (CSIA) entered into a Cooperative Agreement on Research into Blockchain Applications for Chinese Social Insurance Scheme, which establishes a new National Laboratory dedicated to exploring Blockchain Technology applied to Social Insurance. This is the official launch of THEKEY's application of blockchain technology in service to the world's largest insurance entity.

THEKEY also announced the launch of a Scientific and Research Fund through which, over the next five years, it will channel a total of 20 million

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Orvium at a glance

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Can The Brooklyn Microgrid Project Revolutionize The Energy Market?

A New York-based energy project built on blockchain is currently attempting to create peerto-peer marketplaces for distributed energy. As the global energy market is still trapped in a previous era and needs an urgent and thorough redesign, the Brooklyn Microgrid could be a game changer.

LONDON (Reuters) - British energy supplier Centrica (CNA.L) will launch a local energy market trial later this year using blockchain technology, it said on Monday.

Blockchain provides a secure platform for consumers to buy and sell directly from each other and is being explored by several European utilities which say it could revolutionize the energy sector.

• DISTRIBUTED ENERGY NETWORK BASED UPON BLOCKCHAIN (BLOCKCHAIN USED AS A REGISTRY AND SMART CONTRACT)

• Why:

- Centralized systems problems:
 - Match Demand and Supply
 - Single points of failure & Cybersecurity
 - Distribution losses & leaks
- Decarbonization:
 - Renewable energy
 - Distributed production

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HOME ~

BIM News

June 21, 2018

The project is supported by Autodesk and the Plan Transition Numérique dans le Bâtiment, the French equivalent of the BIM Task Group in the UK, and a market-ready product is expected to launch next year.

News > Cryptocurrency Headlines

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DAV Protocol, a Decentralized Blockchain Ride Sharing App, to Rival Uber and Lyft

By Bitcoin Exchange Guide News Team - October 1, 2018

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Decentralized Ride-Sharing Is the Next Big Thing After Uber and Lyft

After seeing the disruptive effect of ride-sharing apps such as Uber and Lyft, the tech space may be looking to adopt decentralization of the peer-to-peer model already used by ride-sharing companies as an improvement.

Blockchain technology moves into car sharing, mobility services

Joseph White

Q

3 MIN READ

DETROIT (Reuters) - The technology underpinning the cryptocurrency bitcoin is migrating to the auto industry and vehicle sharing.

FILE PHOTO - Cars are seen in a parking lot in Palm Springs, California April 13, 2015. REUTERS/Lucy Nicholson/File Photo

Accounting and consulting firm EY, part of Ernst & Young Global Ltd, said on Wednesday it was launching a blockchain based system that will enable companies or groups of individuals to more

WHERE TO START?

BLOCKCHAIN BASED GOVERNANCE MODEL FOR PUBLIC SERVICES IN SMART CITIES

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- Cities arround the world suffer huge challanges: social, economic and environmental
- Blockchain is a technology that provides:
 - Transparecy, Immutability, Cybersecurity & Efficiency

BLOCKCHAIN CAN HELP TO:

- GENERATE SOLUTIONS
- SOLVE MANY OF THESE PROBLEMS!

Photo: Digital Day / Facebook

Newsletter Join our list to receive latest Blockchain, Crypto & Fintech news: SUBSCRIBE Your email TOP CRYPTOCURRENCIES \$3,527.97 Bitcoin (BTC) XRP (XRP) \$0.30 -3.57% 🔶 Ethereum (ETH) \$109.76 -5.53%

The blockchain technology has got an influential patr over 20 countries of the EU signed a Declaration on the creation of a European Blockchain Partnership.

The blockchain technology significantly influences the traditional economy. WI and more money become digital and the crypto infrastructure develops, gover throughout the world are trying to figure out the best way of living in the crypto reality.

Europe has definitely been kind to the new technology this year. On the 10th of April 22 countries in the European Union made a big step towards the blockchain future - they signed a Declaration on the Establishment of a European Blockchain Partnership.

Bitcoin and its competitors have spread all over the world gaining incredible popularity in

The EU Unveils A Blockchain Association **Dubbed As IATBA For Banks**

By Samantha Mitchell 🏥 November 23, 2018 🖿 Cryptocurrency News 🖳 393 Views 0 Comments

European Union's executive body, the European Commission, is unveiling a first-of-a-kind Blockchain association. The new group is intended to bring together major banks in the region. This will be vital for fostering cohesion in the region for the development of financial services in cross-border

Member: "EU Blockachiain Observatory & Forum"

 Main contributor: "Blockchain 4 Cities" report by UN/ITU (U4SSC)

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- Web: www.stefanjunestrand.com

Linkedin: www.linkedin.com/in/stefanjunestrand/

Stefan Junestrand, CEO of Grupo Tecma Red and a member of the European Blockchain Observatory shares his thoughts on what a blockchain-based governance model for public services in smart cities looks like

October 2018

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This opportunity for blockchain arises in an era where the management and services of our cities are being digitalised and are developing towards what is called "smart cities". It also comes at a time when public administrations all over the world are facing a growing demand to fight corruption; to improve the efficiency, transparency and security of their systems; and to develop a more participative, interactive and democratic citizenship.

Existing organisational models and technology platforms have not been able to provide all of the above-mentioned needs. Blockshain technology, though, could offer solutions for the improvement