

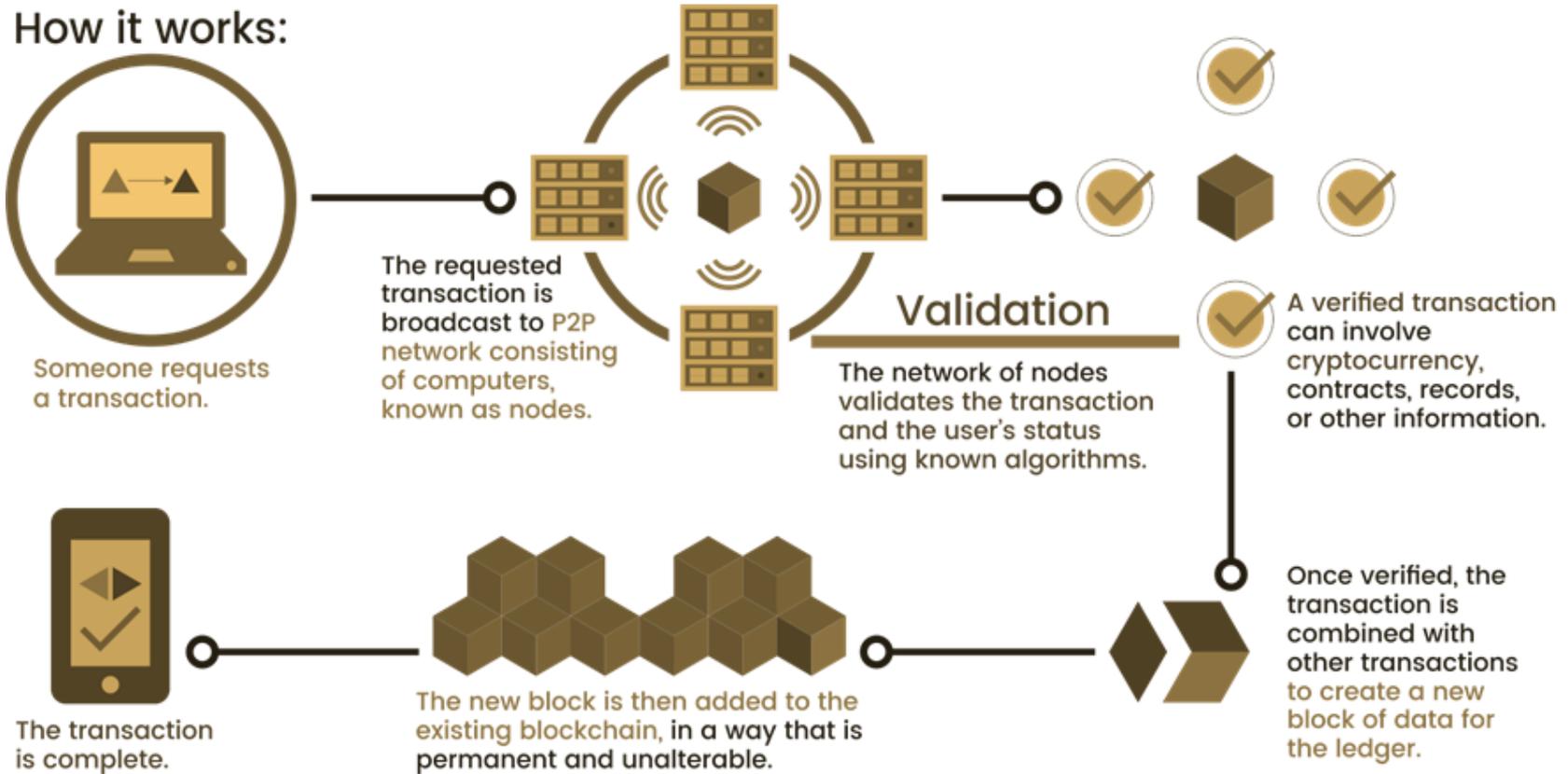
# BLOCKCHAIN TECHNOLOGY FOR E-GOVERNANCE

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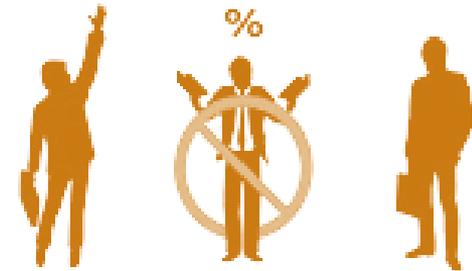
Virtually, **blockchain** is a transparent distributed database that records details on all transactions performed by the system's participants. In the context of electronic government, this means a technology that stores data on the results of all interactions between citizens and government agencies.



Importantly, the data are interlinked, coded and stored by all members of the system, and are automatically updated to reflect the changes made. Users act as a collective notary that certifies the accuracy of the data in the system and guards against abuses and scheming attempts.



Blockchain facilitates agreement among the participants on virtually any matter involving no intermediary; It thus creates a foundation for decentralised governance, promotes consensus-based social contracts and maintains a fair balance of interest beneficial to the society.



Blockchain technology acts as a control on the egoistic motives that cause some people to engage in corrupt practices. It also creates a powerful incentive to abide by the rules that apply to all participants equally, thus creating a spirit of collective responsibility.

**You can stop**  
**CORRUPTION**

A small black silhouette of two people standing side-by-side. Below them are several long, parallel lines representing shadows cast to the right.

# The challenges

There is a number of technical challenges faced by blockchain:

- Poor scalability (growth in data volume on each node),
- Low bandwidth,
- Centralization tendency as a result of the growing resource-intensity of data validation procedure.

Information security, cost and reliability are still important problems in application.

Establishing a general application platform of blockchain technology and developing management standards are crucial for promoting and applying blockchain in e-governance

# Examples of uses of blockchain in different parts of the world

- Proven facts
- Accuracy
- Increased security
- Lower costs
- Tracking
- Eligible forensic evidence
- Effective social programs
- Effective board
- Government accountability



# Potential sectors (beyond virtual currencies)



By **governments** for citizens' ID management, taxation reporting, development aid management, eVoting and regulatory compliance (RegTech).



By **insurances** for automatic execution of contracts.



In **finance** for money transfer, peer-to-peer lending and transfer of securities.

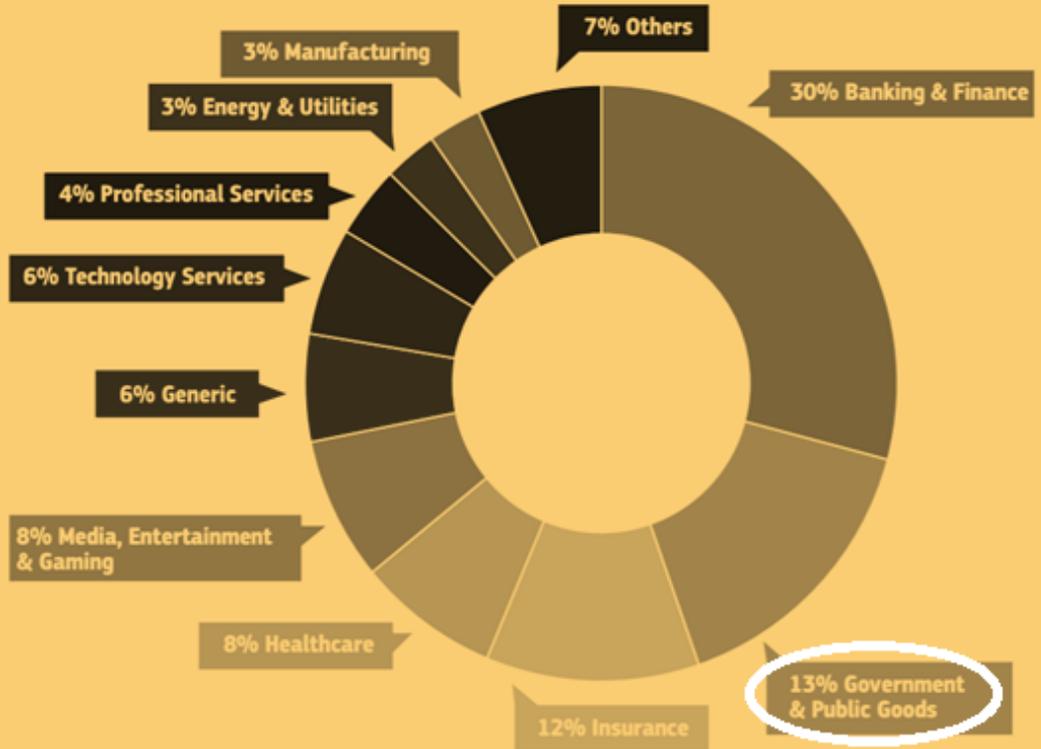


For **media and intellectual property** to directly distribute music, videos and other content.



In **healthcare** to track transactions on patient's health records and identification of access.

## Sectors currently using blockchain



# EU

In 2017, the Commission recognised blockchain-inspired technologies as having huge potential for administrations, businesses and the society in general, and launched the EU Blockchain Observatory and Forum.

The European Commission aims to develop a common approach on blockchain technology for the EU in the international arena to improve the European industry - from start-ups to large corporates, administrations and citizens.



# EU

10 April 2018, 22 European countries have signed a Declaration on the establishment of a European Blockchain Partnership. The Partnership will be a vehicle for cooperation amongst Member States to exchange experience and expertise in technical and regulatory fields and prepare for the launch of EU-wide blockchain applications across the Digital Single Market for the benefit of the public and private sectors.

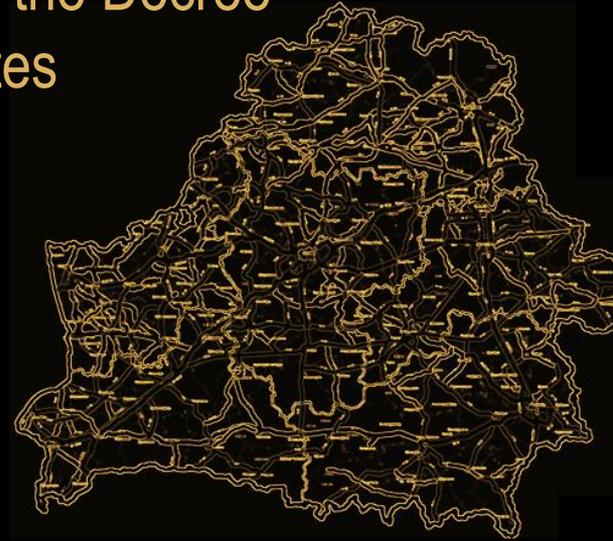


# Belarus

In December, 2017 the President of Belarus has signed the Decree "On the Development of Digital Economy" which regulates blockchain technology implementation.

The National Bank of Belarus has built up the network on blockchain introducing the new mechanism of maintenance of the register of bank guarantees.

Studies explore uses of blockchain to improve the operation of the property registry, which now contains about 7.5 million records of property objects and grows by an average of 100,000 new records of property transfers per month.



# Characteristics of high-potential use cases



## Shared repository

A **shared repository** of information is used by multiple parties



## Multiple writers

**More than one entity** generates transactions that require modifications to the shared repository



## Minimal trust

A level of **mistrust exists between entities** that generate transactions



## Intermediaries

**One (or multiple) intermediary** or a central gatekeeper is present to enforce trust



## Transaction dependencies

Interaction **or dependency between transactions** is created by different entities

**In practice, performance of an administrative procedure amounts to making a record in a registry of civil status, property rights, health, etc.**



**Blockchain can be viewed as a technology that helps streamline and automate virtually all administrative procedures while increasing the transparency and effectiveness of e-government.**

## **Before blockchain:**

E-governance is the application of ICT for delivering government services.

## **With blockchain:**

E-governance is the implementation of smart laws.

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