



Towards the Application of Blockchain Technology for Improving Trade Facilitation in CEFTA 2006

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Blockchain ???

What are **cryptocurrencies**?

decentralized ledger

cryptographically secured

mining

„Everything you don't understand
about **money** combined with
everything you don't know about
technology.“





**Concepts &
technologies**

What is **blockchain technology**?

Digital ledger - a very special book for keeping records

A close-up, low-key photograph of a man's face in profile, looking intently at a keyhole in a dark wooden door. The lighting is dramatic, highlighting the texture of his skin and the keyhole. The background is dark and textured.

Blockchain Properties

Immutable


Records can never be altered or erased

Auditable

Records can be audited and verified at any time

Distributed

An identical copy exists in multiple places

A person in a green shirt and blue jeans is captured mid-air, leaping from a dark rock ledge on the left to another on the right. The background is a soft, hazy sky with warm tones of orange and yellow, suggesting a sunrise or sunset. The overall mood is one of risk and faith.

world of
cryptocurrencies

world of
trade facilitation

**A leap of
faith**



Monitors the flow of goods

- everything can't be monitored
- risk assessment by analysis

Intervenes when necessary

Trade facilitation gatekeepers



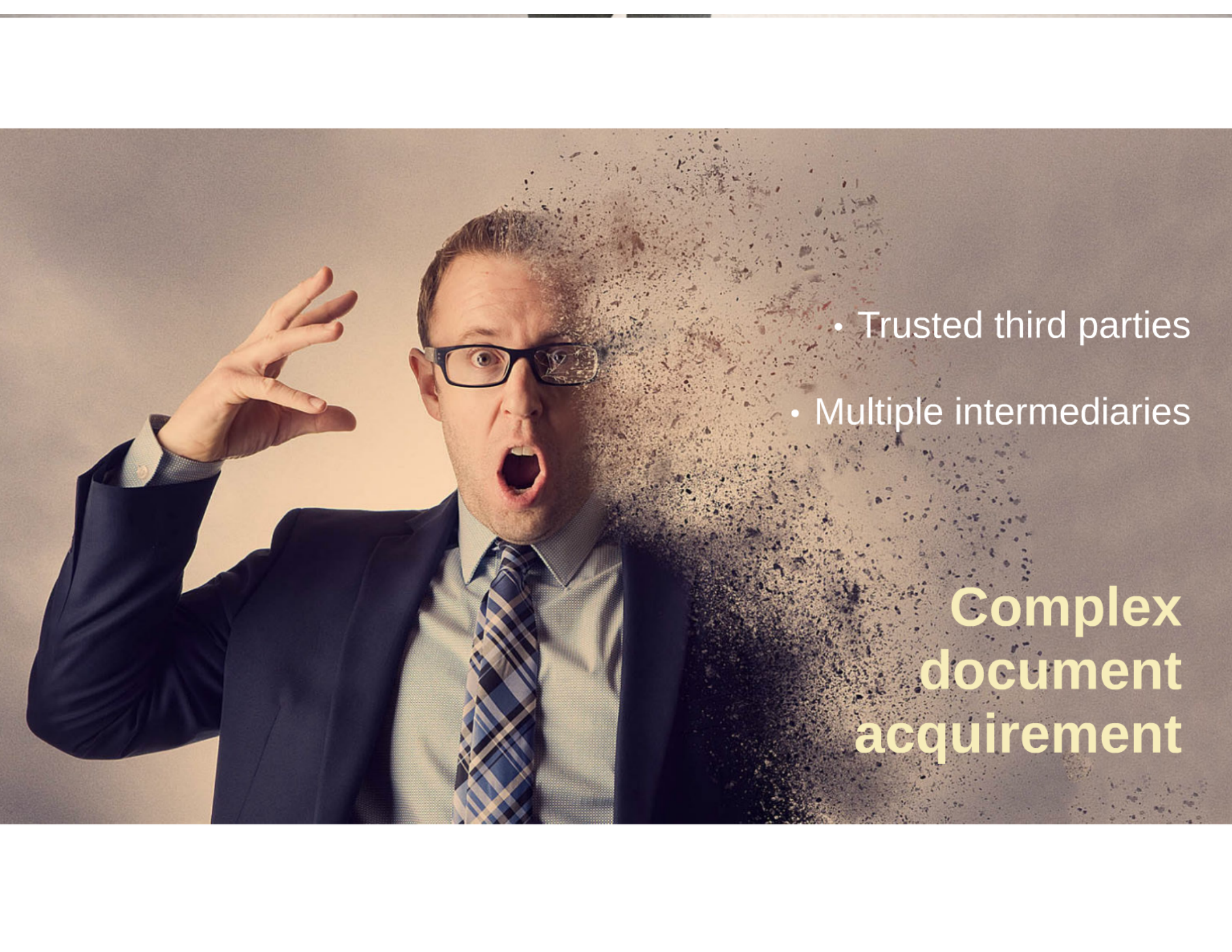
Lack of standardization

- Non-existence of automated data transfer
- Complicated exchange of documents (computer-paper-computer)



Information reliability

- untimely
- vague
- inaccurate
- fraudulent

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- A man in a dark blue suit, light blue shirt, and patterned tie is shown from the chest up. He is wearing black-rimmed glasses and has a wide-eyed, open-mouthed expression of shock or surprise. His right hand is raised, with fingers spread. The background is a plain, light-colored wall. A large, dark, textured cloud of dust or debris is exploding from the right side of the frame, partially obscuring the man's face and the background.
- Trusted third parties
 - Multiple intermediaries

**Complex
document
acquisition**



The role of blockchain technology

- Facilitate cross-border trading transactions
- Management of document-based information
- Transparent shipment tracing

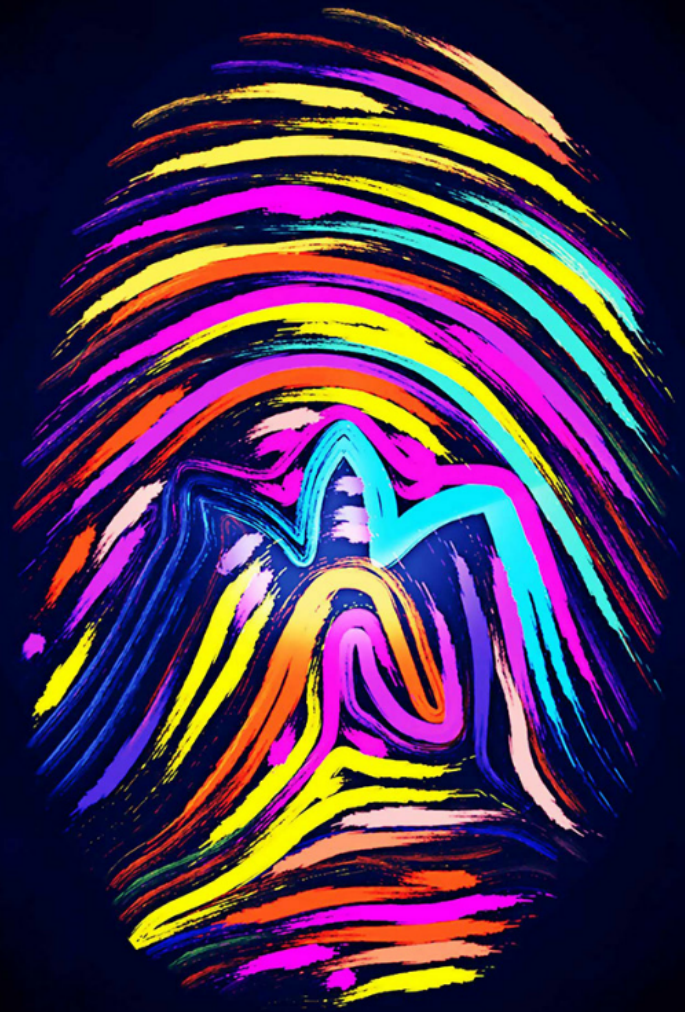
The blockchain proposal

Move customs agencies (and stakeholders) towards a blockchain based integration of collaborative processes

- Electronic original documents
- Secure information sharing
- Distributed permanent data ownership

Electronic originals

- Unchangeable
(hashing)
- Guaranteed without a third party
(digital signatures)



Secure information sharing



Restrictive access to information
(private-key cryptography)

Specification of confidentiality rules
(smart contracts)

Distributed permanent data ownership



All stakeholders store a ledger original

Data is synced directly to all ledgers

New data is accepted/rejected based on rules

Next step

Consider moving trade services to
blockchain technology



