Why do we need Blockchain Estate Registry?

Building a new generation property registry proving its advantages and benefits

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Australian Institute for Digital Transformation
23 November 2021

1. Original research & concept

General Concept of Real Estate Tokenization on Blockchain

DE GRUYTER European Property Law Journal (2020)
O. Konashevych

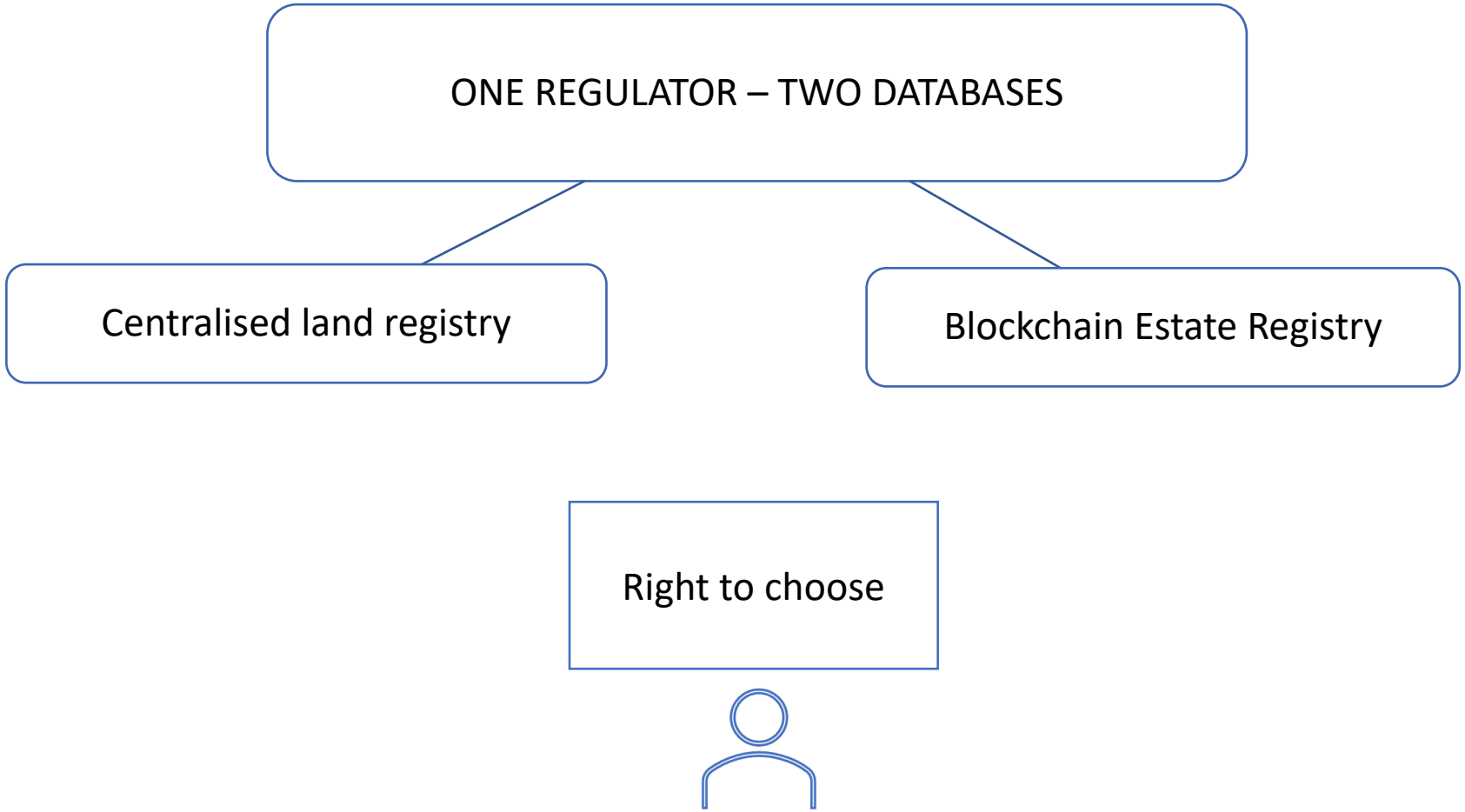
Cross-Blockchain Databases for Governments:
The Technology for Public Registries and Smart Laws

EMERALD Web Information Systems (2020)
O. Konashevych

Blockchain Estate Registry

- Title tokens
- Digital Identity
- Digital Authorities
- Smart Laws
- Model smart contracts
- Cross-blockchain protocol

Blockchain estate registry a better alternative



Advantages

[Use cases]

Peer-to-peer transactions

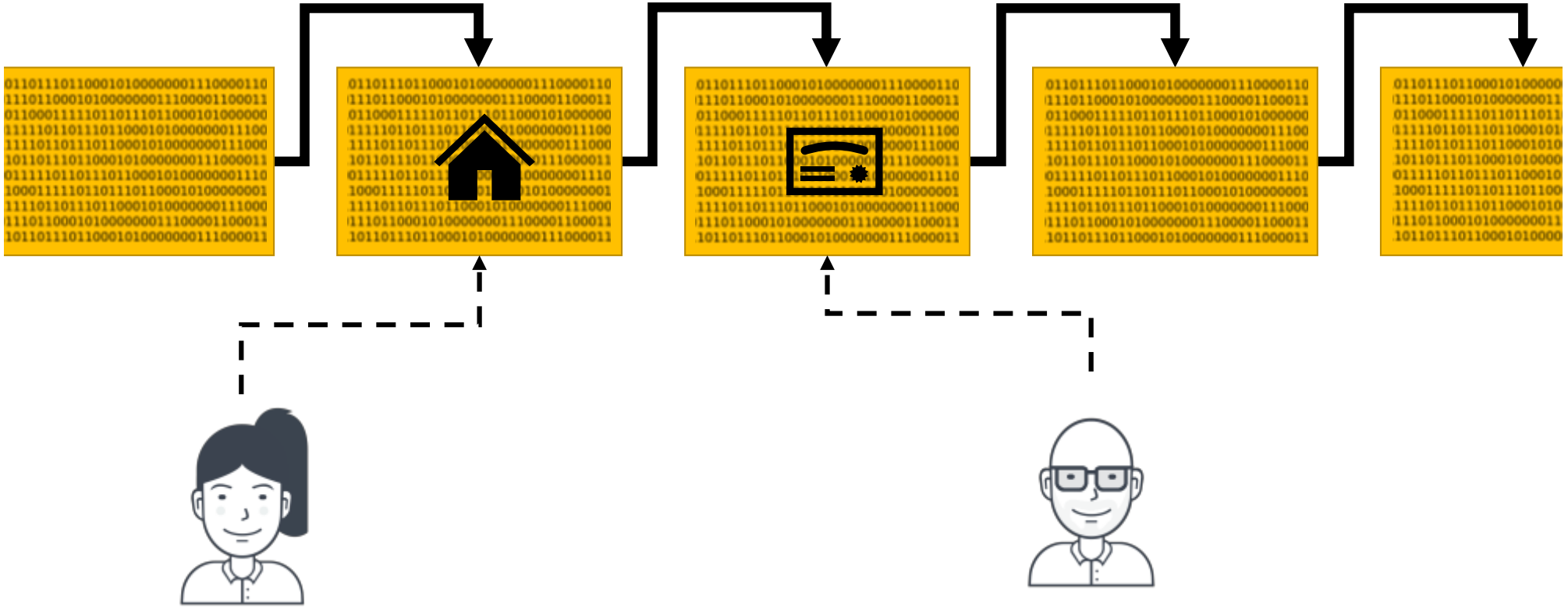
TRANSACTION

Compare with conventional real estate transactions

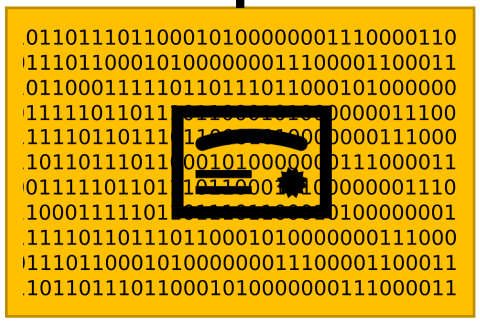
ESCROW ACCOUNT

ESCROW ACCOUNT

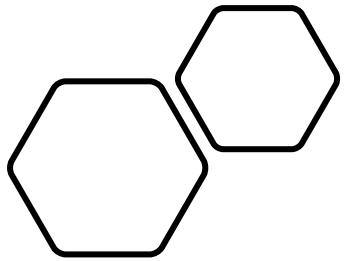
Legal governance through two levels:
(1) certificate tokens (records of registration)
(2) root addresses



Registrar



Automation



- MODEL SMART CONTRACTS
  - Purchase
  - Lease
  - Mortgage
  - Will
  - +

Transparency for public services

- Building permits
- Architecture permits
- Concessions

etc

Fractional ownership

[Scenarios]

Fractional ownership: Scenarios

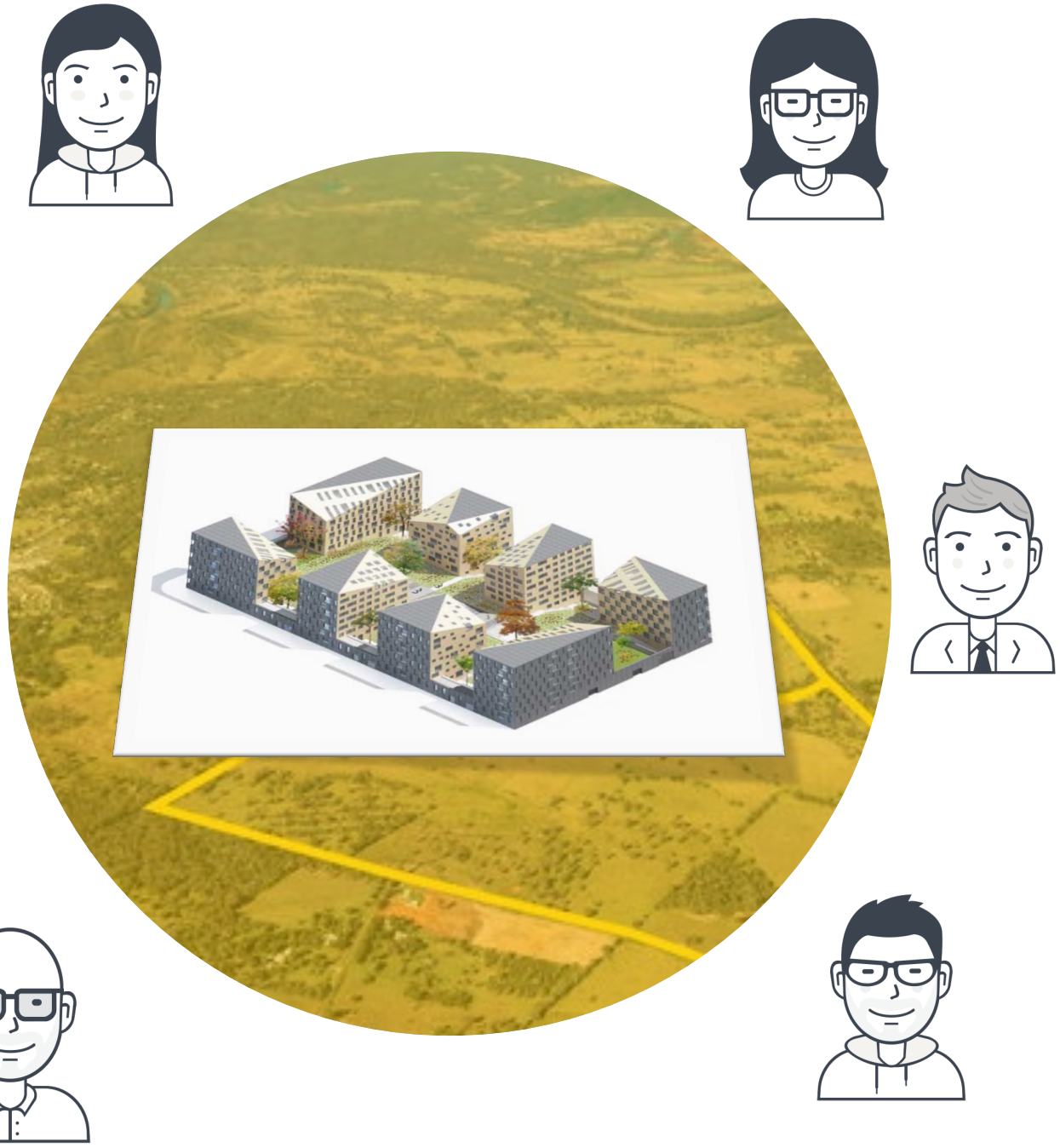
- Investment tools (and new markets)
- UnBanked mortgage
- Liquid property

Scenario:
Investment tools

Title tokens locked in Development smart contracts

Types of tokens circulate in the economy:

- Investment tokens
- Strata tokens
- Leasehold tokens



SMART CONTRACT

✓Due diligence

✓$100.000

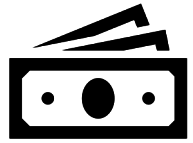
✓$300.000

✓$450.000

✓$150.000

$1.000.000

Scenario:
UnBanked mortgage



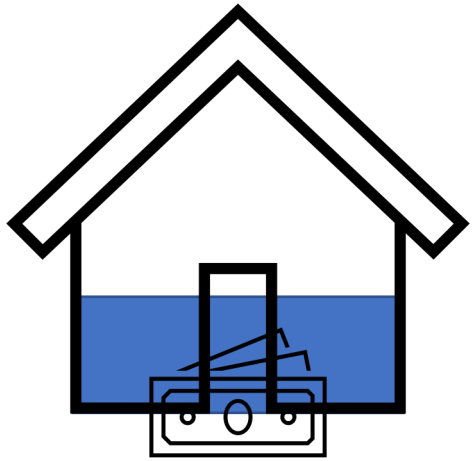
1.000.000

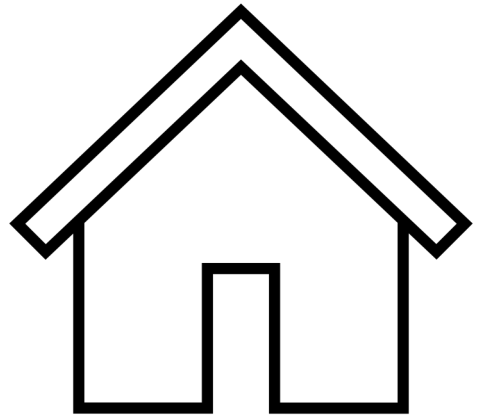
SMART CONTRACT

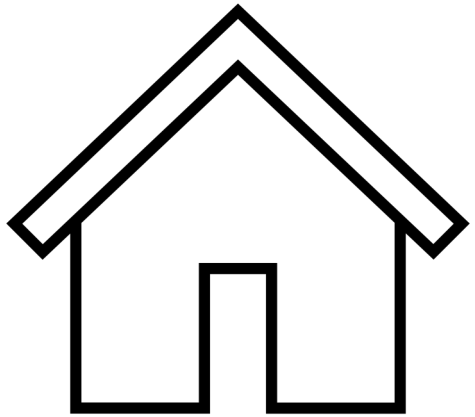
MORTAGE

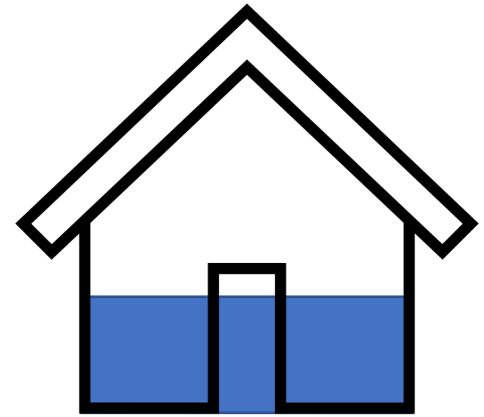
$+%

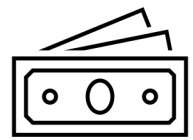
Scenario: Liquid property

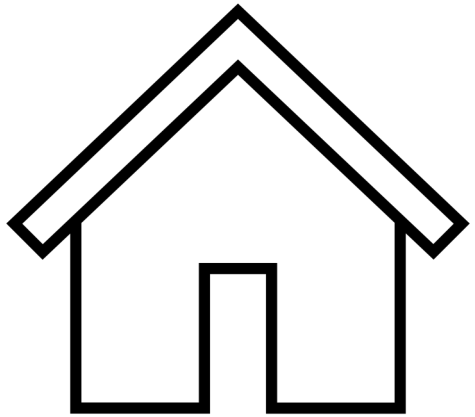


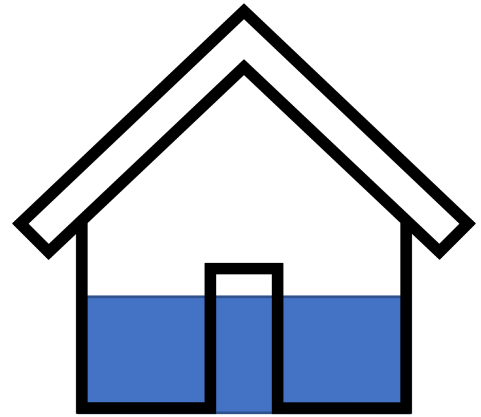


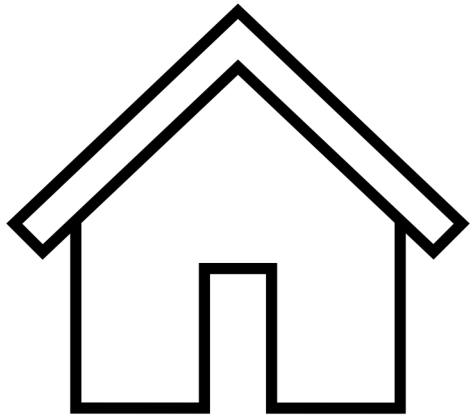


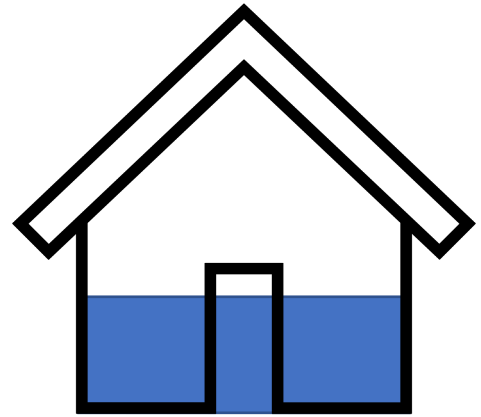


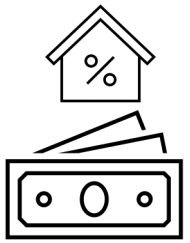


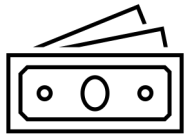


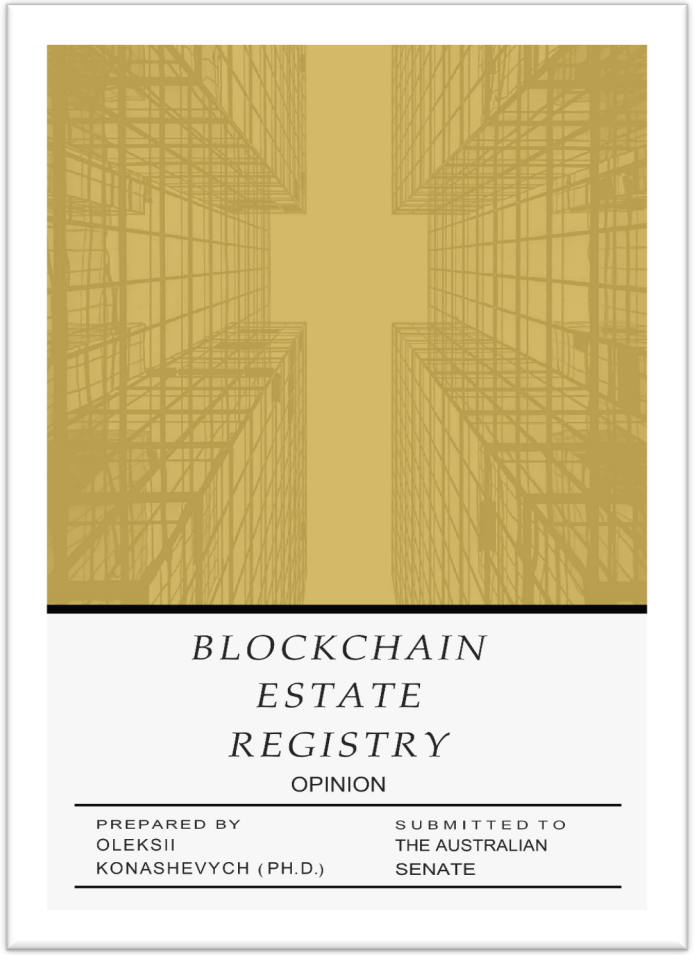












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The Senate

Select Committee on Australia as a Technology and Financial Centre

Second interim report

April 2021

Land registries

5.32 Block8 informed the committee of state government efforts to 'move their jurisdictions to a fully electronic conveyancing ecosystem.'[44] In 2019, the South Australian government issued a request for information on the use of distributed ledger technology for Electronic Lodgement Network Operator[45] interoperability in this context.[46] Despite around 12 months of discussions on a blockchain solution, Block8 regretted that South Australia did not proceed with this approach and considered that this was a result of pressure to fast-track implementation.[47]

5.33 CSIRO noted the use of a blockchain-based land registry system in the Republic of Georgia.[48]

5.34 Dr Oleksii Konashevych provided information on his research on the application of blockchain technology to land titles. He found that, using blockchain, 'public bodies can retain the traditional amount of power' but also citizens are given 'direct access to manage their records by performing peer-to-peer transactions'.[49] Dr Konashevych detailed that such a system would allow the public direct access to their property records, rather than needing to go through the registrar as intermediary. He further explained:

> …blockchain is fundamentally different because it's open by default, and so the proprietors, the owners of any property—title rights are just an example; it can be any property rights—can directly interact with their property rights and manage these records that represent their property. Why the registrar is inefficient is that, when there is a centralised database closed by default and it's mediated through other people, it's a bottleneck.[50]

5.35 Existing closed database systems don't allow smart contracts or 'automation and interaction by many interested parties, like banks, insurance companies, landowners and developers'. By contrast, with an open infrastructure like blockchain it is 'possible to introduce these sorts of things, with digital rights operating with smart contracts.'[51] Dr Konashevych estimated that the use of blockchain in land registries would reduce the work of registrars by 90 per cent.[52]

5.36 Dr Konashevych told the committee that there would be 'lots of advantages, including attracting investments from all over the world' for early adopters of these technologies.[53] He advocated for Australia adopting blockchain in the land registry as a pilot, which would not require amending or adopting new legislation. He did however consider that the 'full power of the technology' could be achieved only by changes in regulations.[54]

Chapter 7
Conclusions and recommendations

7.1 This chapter details the committee's conclusions and recommendations from this phase of its inquiry, and notes some directions for the final phase of the committee's work.

Recommendation 17

7.59 The committee recommends that National Cabinet consider supporting a blockchain land registry initiative as a pilot project for Commonwealth-State cooperation on RegTech.

Policy framework for digital assets and cryptocurrencies

7.60 The committee recognises the clear appetite for improved clarity and certainty in the regulatory landscape applicable to digital assets, cryptocurrencies and related areas. While the committee heard extensive evidence on the need for such regulation, it heard less on concrete ideas for how this regulation should best be crafted.

[See Report on www.aph.gov.au]

THANK YOU!

The Australian Institute for Digital Transformation

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Would you like to know more?

YouTube channel – Blockchain State

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