Blockchain for Land Administration

Smart Land Registries - a tangible model seeking value for all parties

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The team

Ordnance Survey
- Trusted government geospatial partner

Trimble
- Leading international geospatial solutions provider

IBM
- Strong proponent of Hyperledger blockchain technologies

Land Administration Services and Platform
- Low risk migration to an evolving digital land authority

The Smart Land Registry
- Finding real value

Blockchain
Land administration services and platform
Towards the Smart Land Registry

**Codified registry**
- Codified titles, RRRs, geometry
- Data quality improved

**Digital services to enable transactions**
- New digital services
- Innovation ecosystem of applications

**Appropriate legal framework**
- Innovation enabling legal framework
- Legally binding digital artefacts

Smoother, faster, more efficient transactions
Enabling of economic growth
Reduced cost of operation of registry
Happier citizens
Challenges for the land authority

Near term challenges

- Paper-based records/Archaic computer systems
- Low quality / heavily siloed data
- Unsustainable technology
- Exclusion from formal land registration
- Financial constraints
- Inefficient processes
- Poor integration across government departments
- Limited market liquidity
- Limited foreign investment
- Lack of trust in the land authority

Addressed by moving to the Smart Land Registry

Long term, strategic challenges
Blockchain technology – seeking value

- Enable transactions when a single authority holding the data and carrying out the transaction is not acceptable

Add real value

Ignore the hype

- Faster transactions?
- Data quality fixed?
- Root of title consensus?
- Legal issues avoided?
- Data collection simplified?
Challenges for the land authority

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Near term challenges

Addressed by moving to the Smart Land Registry

Long term, strategic challenges

Blockchain adding value
A blockchain based land authority

Transactions realised as Smart Contracts

The land administration blockchain

Identity Services

Other government departments

Host

Host

Host

Host

Land authority

Published real-time views of data

Use-case specific applications

Blockchain host network - executes transactions

Land authority

Other government departments

Host

Host

Host

Host

Lenders

Citizens

Investors
Blockchain: Value vs problems

Value to be had

- Increase trust – high visibility of transactions
- Smooth information flow
- Increase market liquidity
- High-trust foreign investment

Problems to overcome

- Is the technology mature enough?
- Are your citizens digitally enabled?
- What about data confidentiality?
- Legal framework changes?

Value from blockchain:

- Must move to the Smart Land Registry first
- Significant change in the way land transaction happen is needed
- Focus on the value – is it worthwhile?
Thank you

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