Queen Mary University of London
Centre for Commercial Law Studies

UNIVERSITY OF CAMBRIDGE

Microsoft Cloud Computing Research Centre

5th Annual Symposium, September 2018

Blockchain and Transparency for Sustainability in the Energy Value Chain

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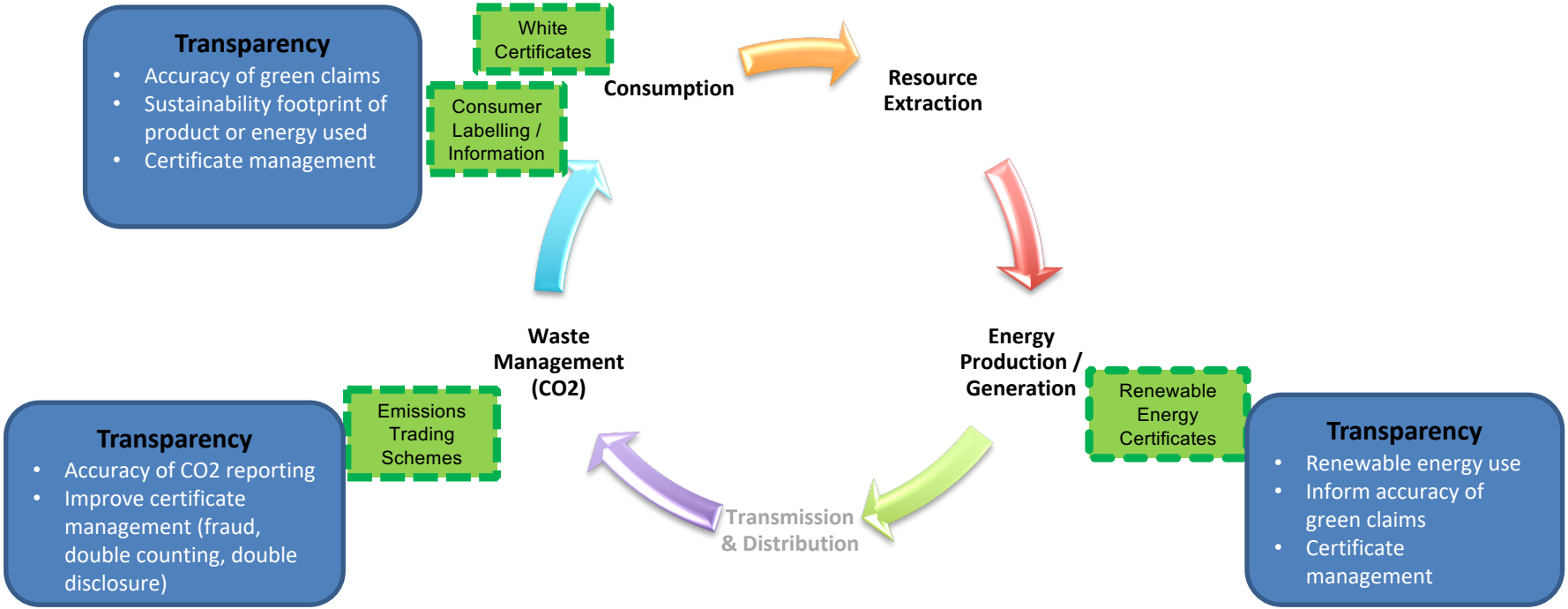
Transparency in the Energy Value Chain – capturing reliable data via blockchain

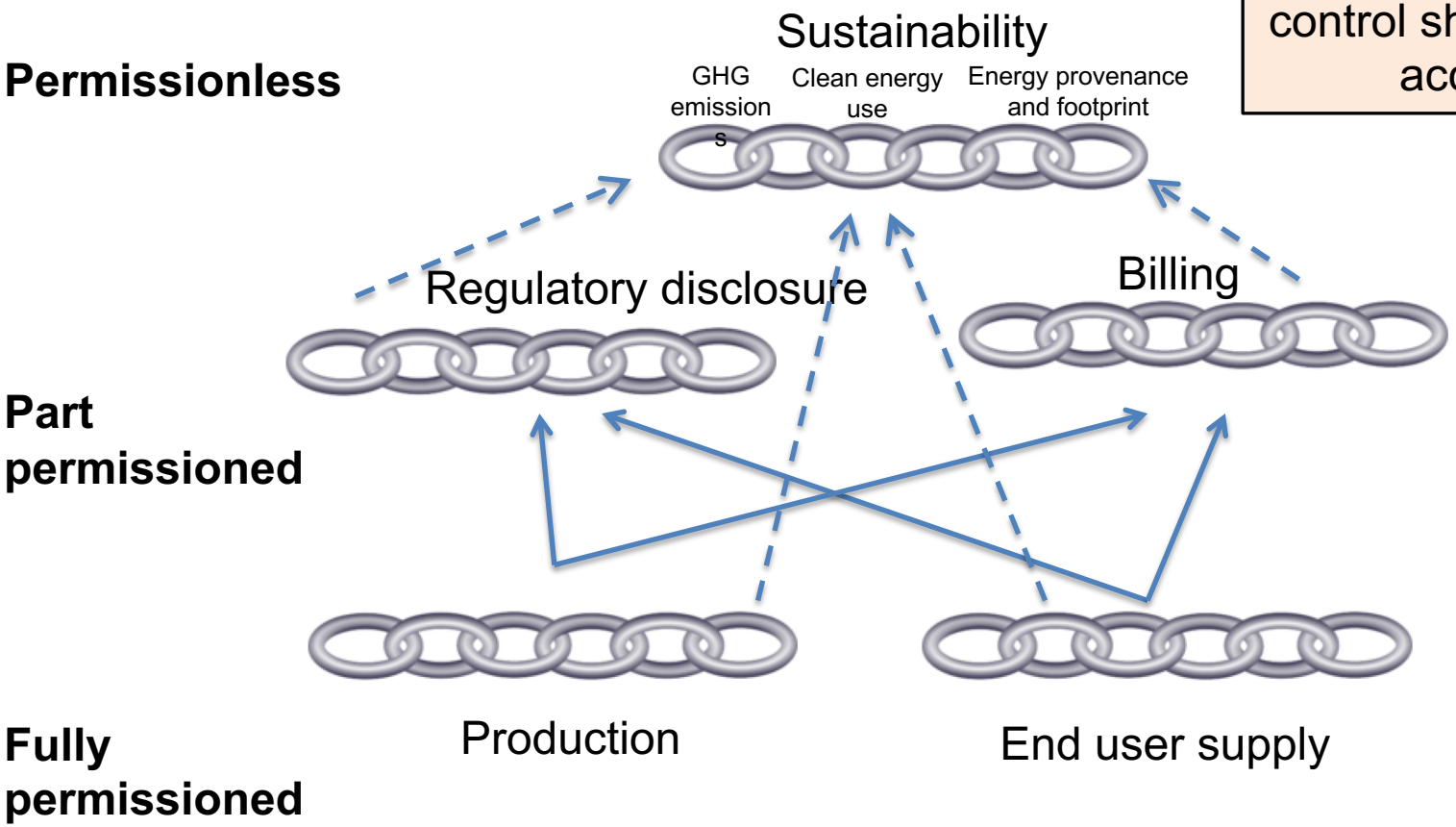


Sharing data – legal and regulatory problems

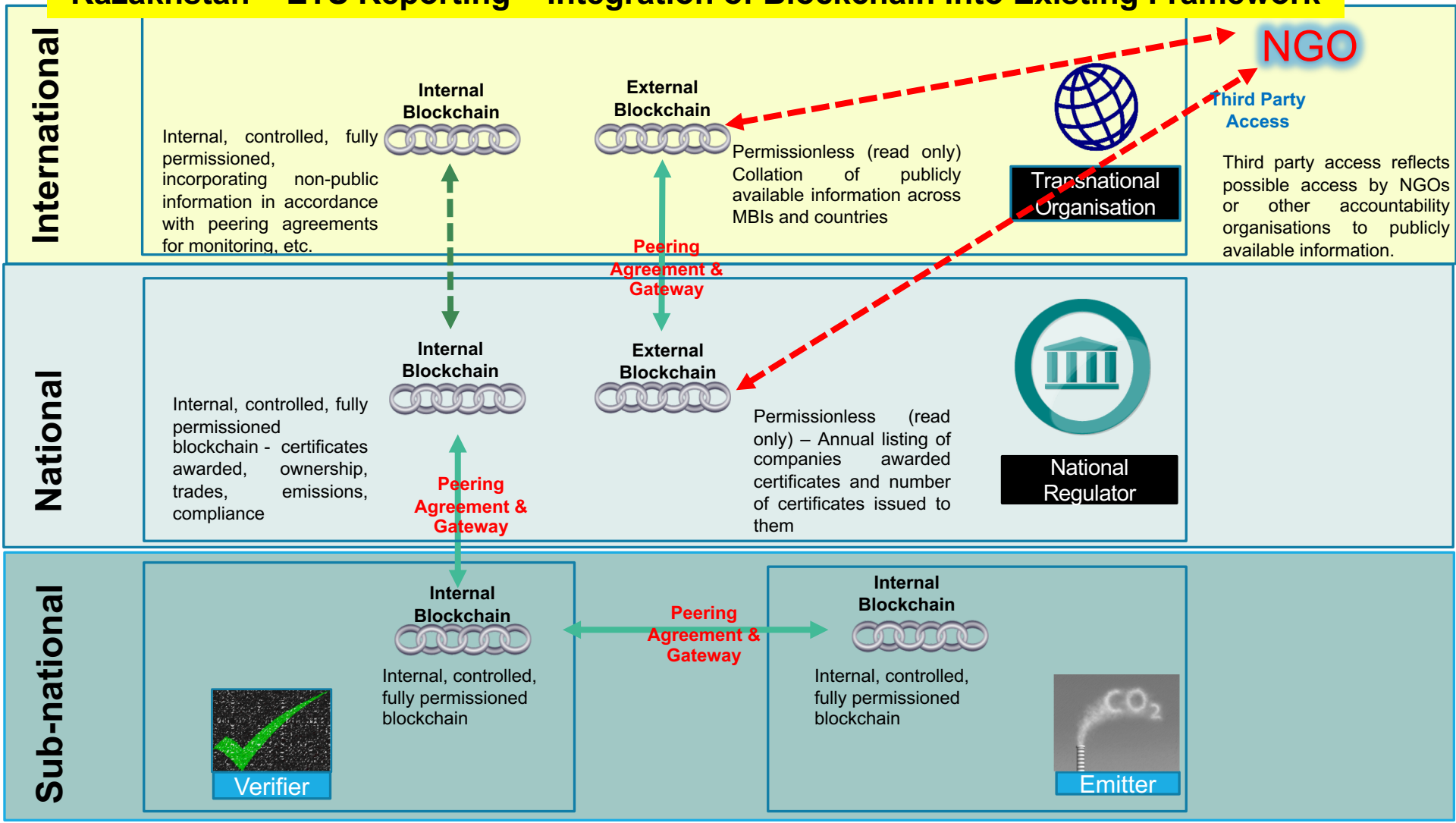
- Examples:
  - Primary data
    - Often only available to verification bodies (Kazakhstan, Brazil)
    - Regulator may receive only summaries
  - Disclosure limitations
    - Widely differing views on
      - What data can be shared within the regulatory system
      - What data can be made public
- Thus blockchain data storage doesn’t solve the sharing problem

Aggregator Blockchains

Gateways and peering agreements control sharing and access



Kazakhstan – ETS Reporting – Integration of Blockchain Into Existing Framework



Key Points

- Blockchain is a good way to gather primary transparency information and share it widely. This can improve sustainability in the energy value chain.
- While the technology may provide innovative approaches to historic models, challenges are found at the technology - law interface. Regulatory schemes are all different, with lots of restrictions on what can be disclosed and who can see it. So a gradual approach is necessary.
- Blockchain makes solving these problems possible through differing permissions (i.e. fully open blockchains are not workable).
- Aggregator blockchains, connecting via gateways and peering agreements, enable existing regulatory restrictions to be maintained, whilst achieving the first stage towards transparency (i.e. making as much information as possible available, and on a global scale).

Paper available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3236753

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