



Using Blockchain Technology to Support Climate Action and Paris Agreement Implementation

CLI Research

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The Paris Agreement and Blockchain Technology

Characteristics of Paris Agreement

- Transparency as key pillar of PA
- De-centralized, bottom-up approach
- Important role of measuring, accounting, tracking, reporting
- Exchange of information and review
- Important role of private sector players

Risks: Lack in ambition levels and transparency

Features of Blockchain Technology

- De-centralized notary, also for small systems
- Brings trust to peer-to-peer interactions
- Accessibility and distributed systems
- Increased transparency
- Permanent ledger
- Efficiency – Smart contracts
- Public or permissioned blockchain

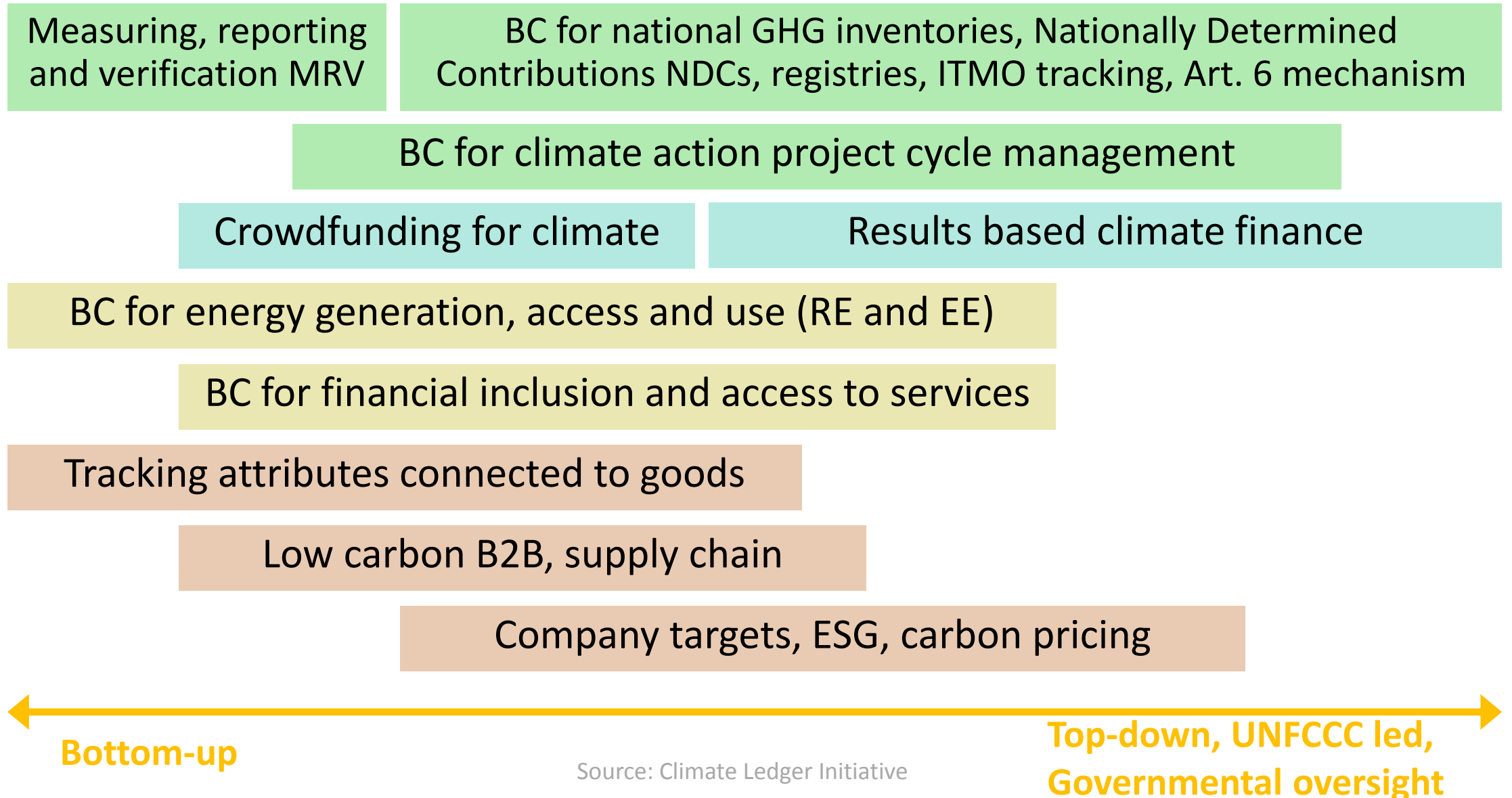
Risks: pilot/ demonstration stage, complex, high power consumption, only a hype?

Backbone – UNFCCC level information system(s)				Global Stocktake of Paris Agreement
GHG Inventories (national.) Sources and sinks		Nationally Determined Contributions (NDCs)		
GHG Inventories (corporate, ETS, footprinting)		Company targets , ESG, green supply chains		
Markets PA Art. 6 Voluntary	Emission Trading Schemes National/ Intl. Clubs	Carbon taxes and levies Carbon pricing Carbon asset reserve	Further regulation and mitigation instruments (Feed-in tariffs, RECs, PATs, subsidies, results based finance, benchmarking, ...)	
	ICAO-CORSIA WMO	National market instruments BTA		
Carbon accounting, transparency and reporting				
Climate finance for climate change mitigation and adaptation				
Fostering green technologies and access (energy prosumers, microfinance, mini-grids, ...)				
<i>Blockchain/ distributed ledger technology – potential of decentralized ledger approaches for improved accuracy/ transparency/ trust, accurate tracking, distributed/ pervasive sources, smart contracts, double counting, etc.</i>				

Research track:
What is the potential of blockchain technology for climate action and the implementation of the Paris Agreement?

Source: Climate Ledger Initiative

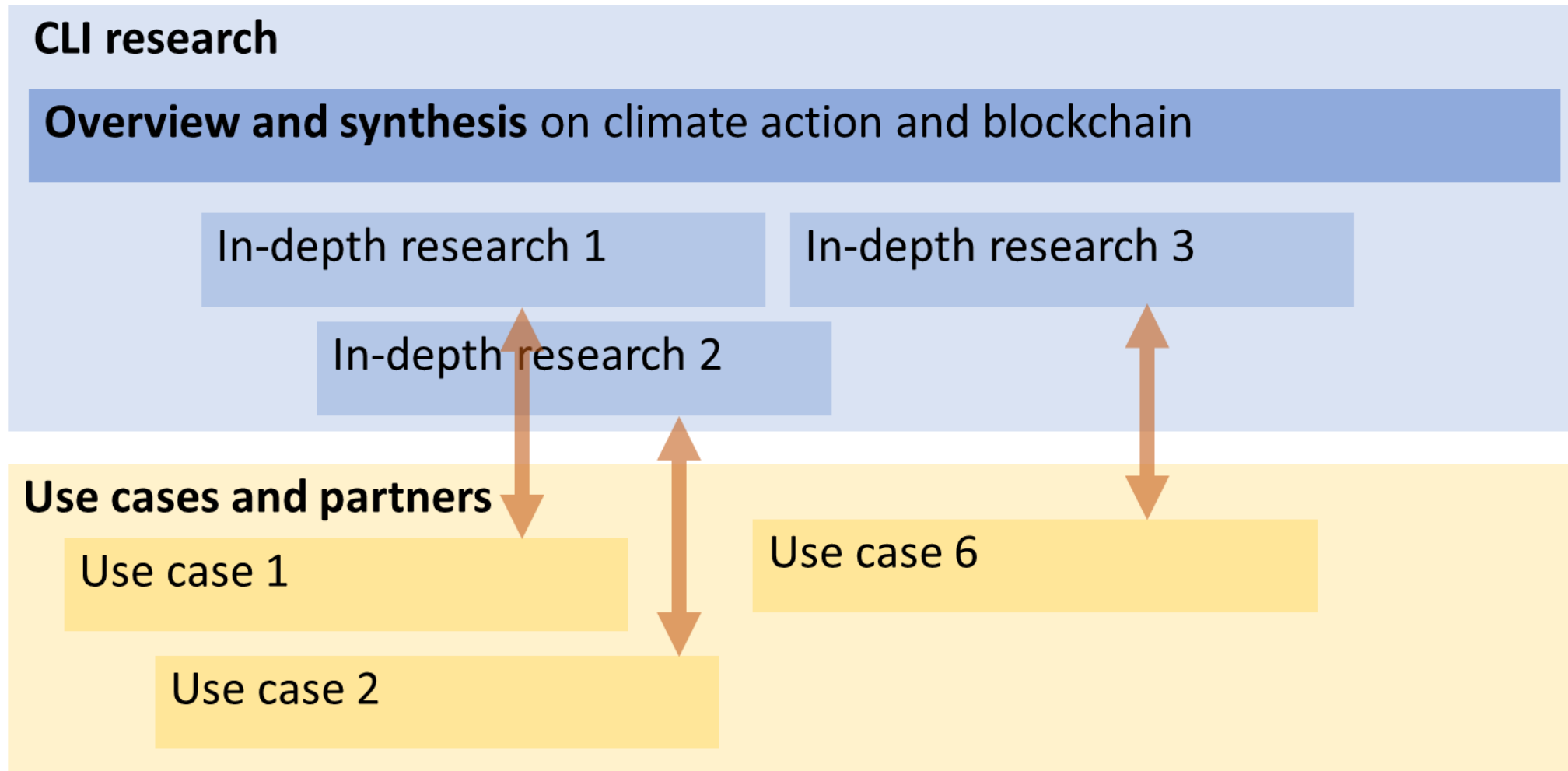
Preliminary mapping of use of Blockchain/ DLT in climate action



CLI research steps

- What is the **current and future architecture of climate action schemes**?
What are their challenges and opportunities?
- What is the status of **blockchain technology** for applications in climate action?
What are issues in blockchain technology that need to be solved?
- **Where can Blockchain technology deliver** new approaches and solutions?
- How does it all **work together**?

CLI research approach



Thank you.

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