Climate change mitigation and adaptation: Getting into action

Juerg Fuessler, INFRAS and Climate Ledger Initiative
UNFCCC SB50 Side Event in Bonn, 25 June 2019

The Climate Ledger Initiative (CLI)

Mission: to accelerate the momentum for climate action under the Paris Agreement by fostering the use of the emerging blockchain technology.

CLI's activities:

- **Analysis and research**
- **Innovation use cases**
- **Platform for exchange and joint learning**

Supported by the LIFE Climate Foundation, Government of Liechtenstein, Government of Switzerland, and EU's Climate-KiC. climateledger.org

Collaboration with Network of partners including UNFCCC Sec., World Bank
The CLI is jointly operated by: INFRAS and the Gold Standard Foundation
Release COP Katowice 2018: *Navigating Blockchain and Climate Action Report*

The Paris Agreement: a historic milestone

Katowice: «technical COP», IPCC SR 1.5, [rulebook]

Accelerating Paris Agreement implementation with Blockchain and other innovative information technologies

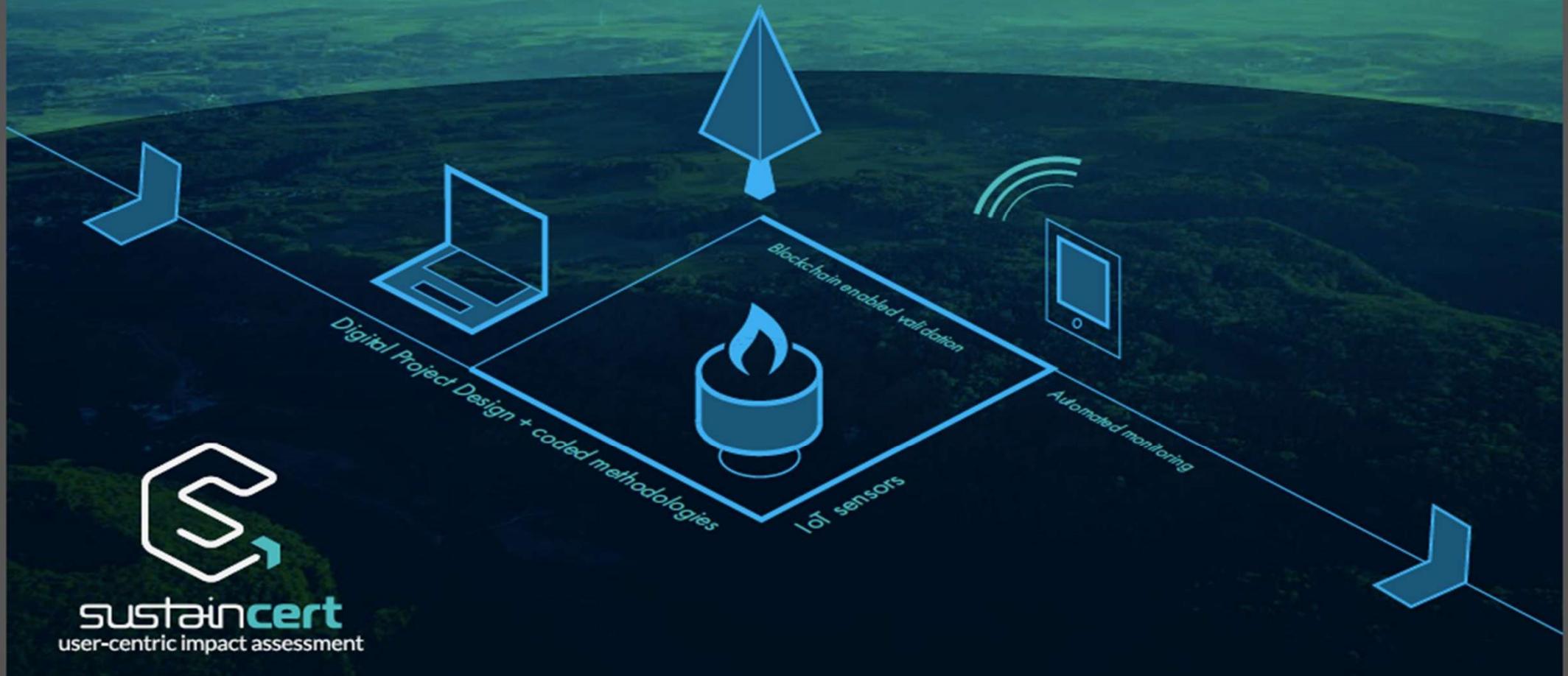| Backbone – UNFCCC level information system(s) (WP1)				Global Stocktake (all WPs)
GHG Inventories (national.) (WP1) Sources and sinks		**Nationally Determined contributions** (NDCs) (WP3)		
GHG Inventories (corporate, ETS, footprinting) (WP1)		**Company targets**, ESG (WP1)		
Markets (WP2) PA Art. 6 Voluntary	Emission Trading Schemes National/ Intl. Clubs	Carbon taxes and levies Carbon pricing Carbon asset reserve BTA	Further regulation and mitigation instruments (Feed-in tariffs, RECs, PATs, subsidies, results based finance, benchmarking, …)	
ICAO-CORSIA WMO	National market instruments			
Carbon accounting, transparency and reporting (all WPs)				
Climate finance for climate change mitigation and adaptation (WP4)				
Blockchain technology – potential of decentralized ledger approaches for improved accuracy/ transparency/ trust, accurate tracking, distributed/ pervasive sources, smart contracts, double counting, etc.				

CLI 2018 Navigating Report launched at COP
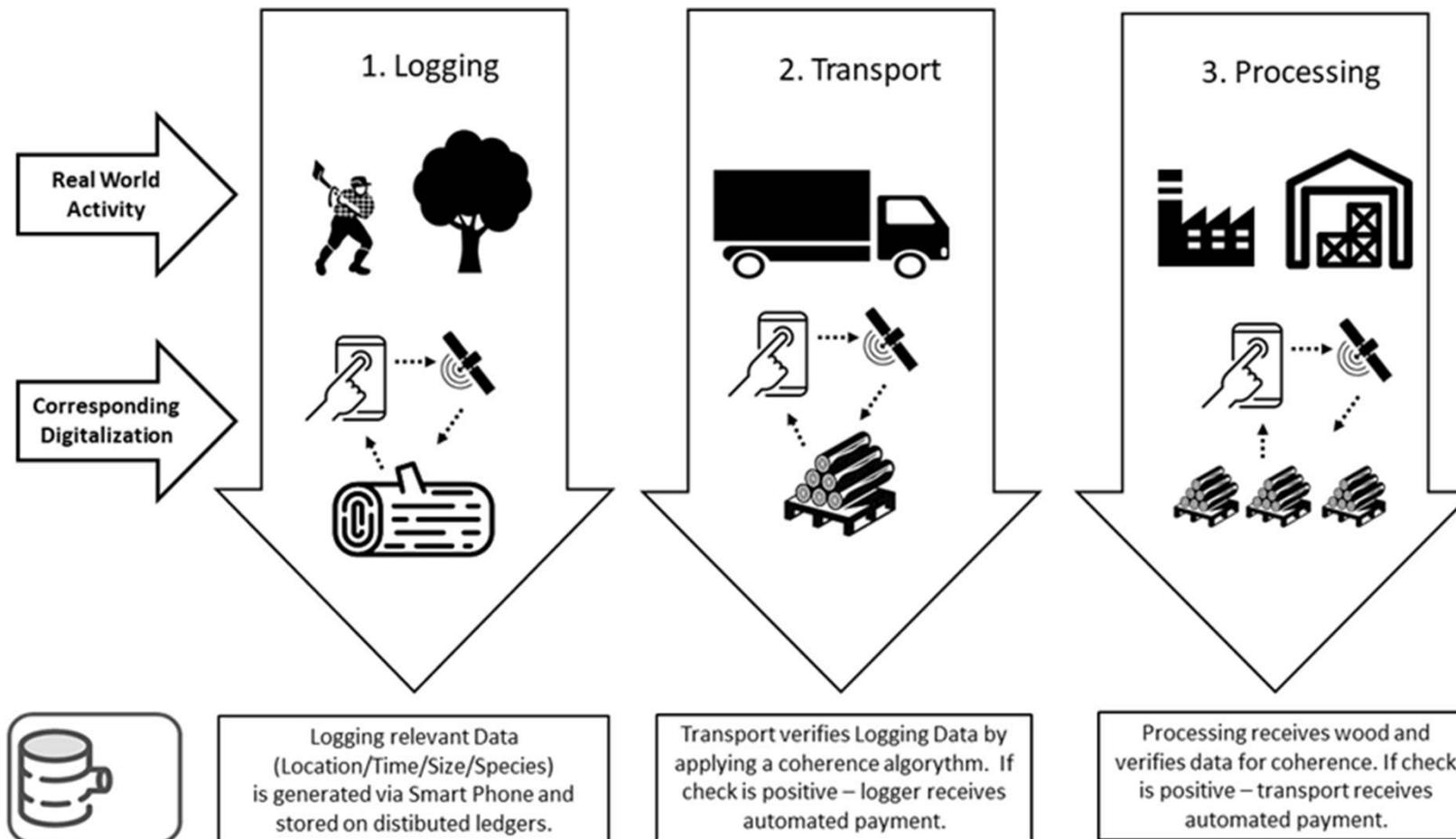Download on www.climateledger.org

Digitizing MRV

USE CASE – CLEAN COOKING

Automation of aspects of the MRV process by:

- Implementing use of IoT – Stove Usage Monitors

- Capturing data, categorising and time/stove stamping using DLT

- Automating the calculation process through an online application

- Pre-conditioning certain parameters for automatic verification using AI

- Targeting higher risks using AI driven verification

- Automating the review and issuance process

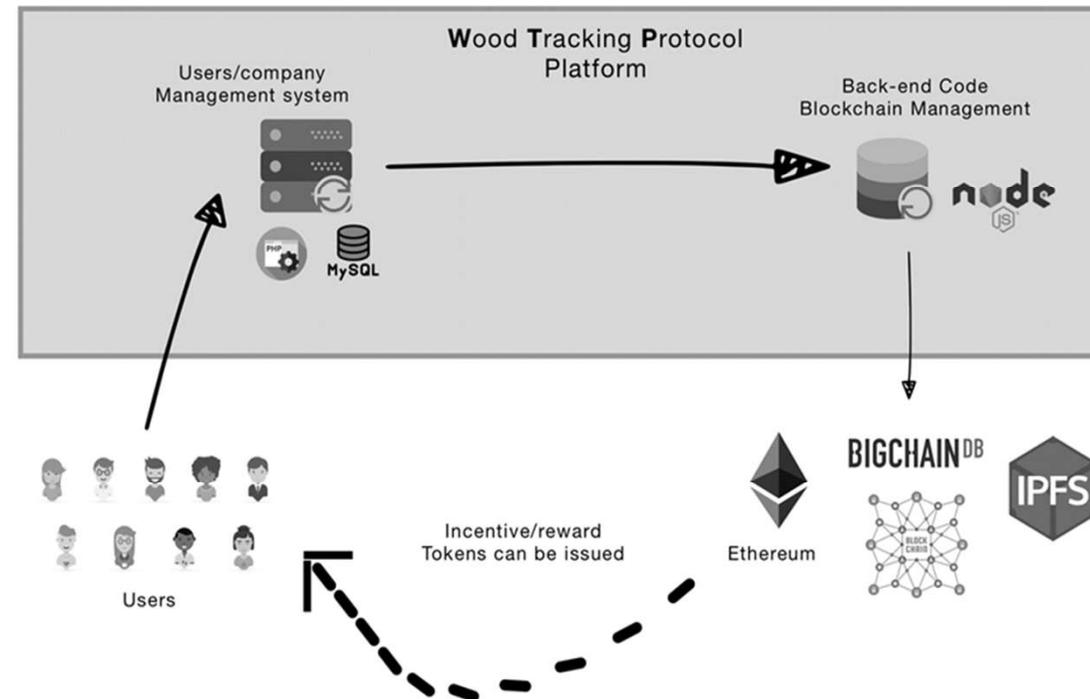- Updating the standard/methodology to empower this approach

USE CASE – WOOD TRACKING PROTOCOL, WTP

CLIMATE LEDGER INITIATIVE

Real World Activity

Corresponding Digitalization

1. Logging

2. Transport

3. Processing

Logging relevant Data (Location/Time/Size/Species) is generated via Smart Phone and stored on distibuted ledgers.

Transport verifies Logging Data by applying a coherence algorythm. If check is positive – logger receives automated payment.

Processing receives wood and verifies data for coherence. If check is positive – transport receives automated payment.

A project supported by the SDC Office Peru: www.wtp-project.com

USE CASE – WOOD TRACKING PROTOCOL, WTP

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USE CASE CC ADAPTATION – WATER MANAGEMENT

IoT systems to reduce water losses at utilities and improve their efficiency and capability to cope during increasing droughts

- Smart meters connected to IoT network + blockchain-aided online platform to manage water consumption data, automatic curtailment and reconnection, and mobile money payment facilitation for water utilities
- Smart-phone app allows consumers to track data and be billed accurately, increasing trust
- DLT ensures payments made are not tampered with, reducing fraud

Source: EED Kenya

New CLI program 2019 – 2021: we are looking for promising use cases and partners Register on www.climateledger.org to get involved

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Source: Juerg Fuessler