

Juerg Fuessler

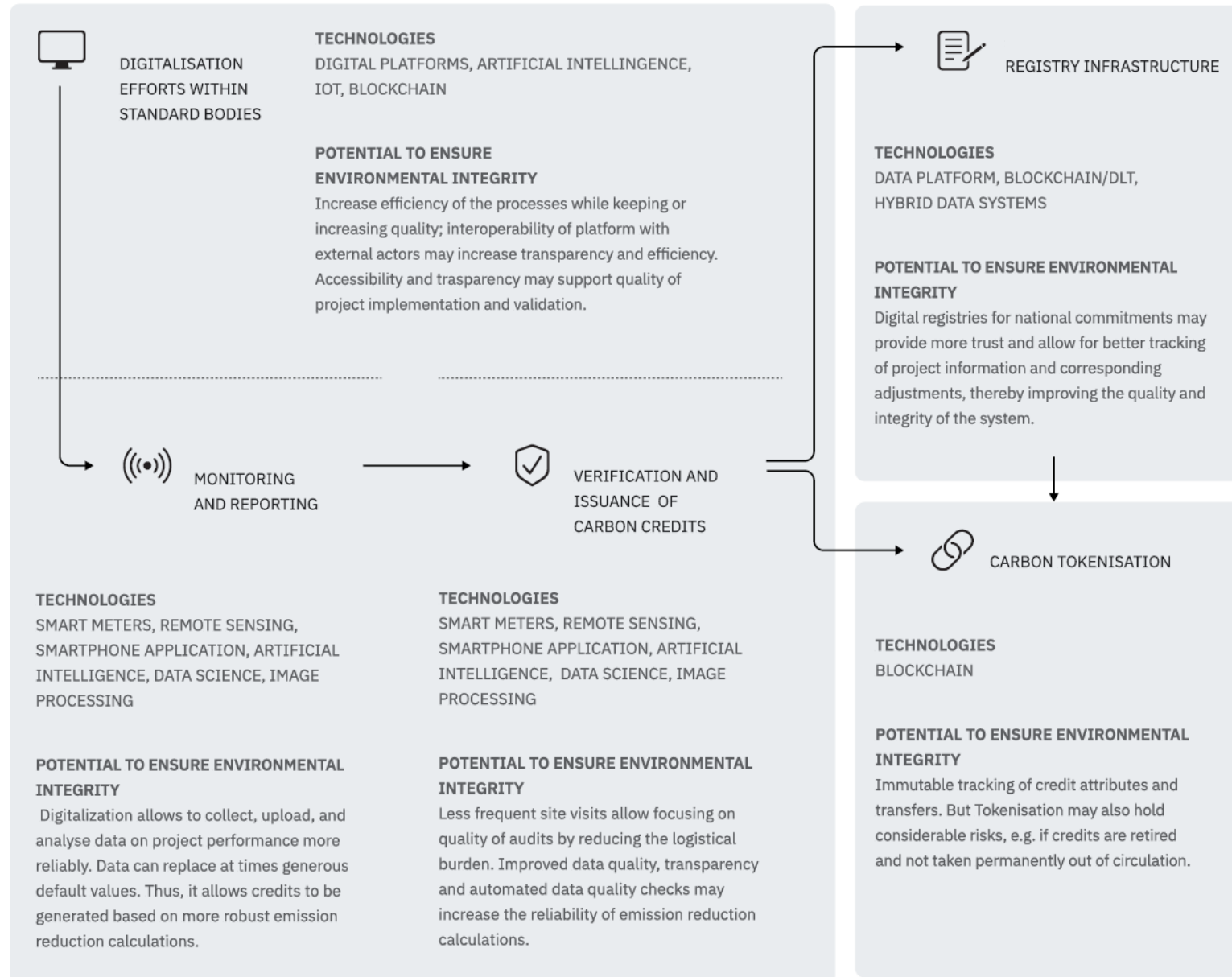
Digitalization of Carbon Markets: Introductory Overview

Joint Zurich-CMA and CLI event, zoom, 27 October 2022



Digitalization of Carbon Markets - Elements

Digitalization of Carbon Markets



Source:
Forthcoming
[CLI Navigating Report 2022](#)
Due in November
© CLI

MRV

Use cases digitalisation of monitoring/ data capturing

Clean cooking – biogas meter for remote monitoring



Source: Inclusive Energy Ltd

- Continuous and comprehensive remote recording of usage levels of project stoves through temperature sensors, LPG flow measurement, or electricity monitoring
- The measurement hardware is operated by project developers.
- Feeds data automatically into a data platform. These platforms often perform also the complete emission reduction quantification calculations.
- Household surveys are still necessary to determine e.g. baseline stove and fuel type

See also: [D-MRV White Paper](#)

Ecosystem modeling for forestry biomass and soil organic carbon



Source: ESA/ATG medialab

- Comprehensive process-based and/or empirical modeling and machine learning approaches.
- Models are supported by empirical data for calibration, validation, and as an input.
- Both open/peer-reviewed and proprietary models are employed
- Comprehensive data platforms aggregate a broad range of data from various sources, including field measurements, satellite imagery, LiDAR, and weather data.

See also: [D-MRV White Paper](#)

Contactless in-situ measurement of soil carbon



Source: Carbon Asset Solutions

- In-situ soil carbon measurement device using inelastic neutron scattering and gamma spectroscopy.
- The device measures total soil carbon levels.
- Concerning measurement accuracy, the solution is advertised as a viable alternative to laboratory-based analyses.
- Commercial rollout is scheduled for the near future.
- The resulting data is stored on a distributed ledger data-base.

See also: [D-MRV White Paper](#)

Assessment of Digital Measurement, Reporting, and Verification

A Snapshot of D-MRV in Decentralized Energy, Forestry, and Agriculture

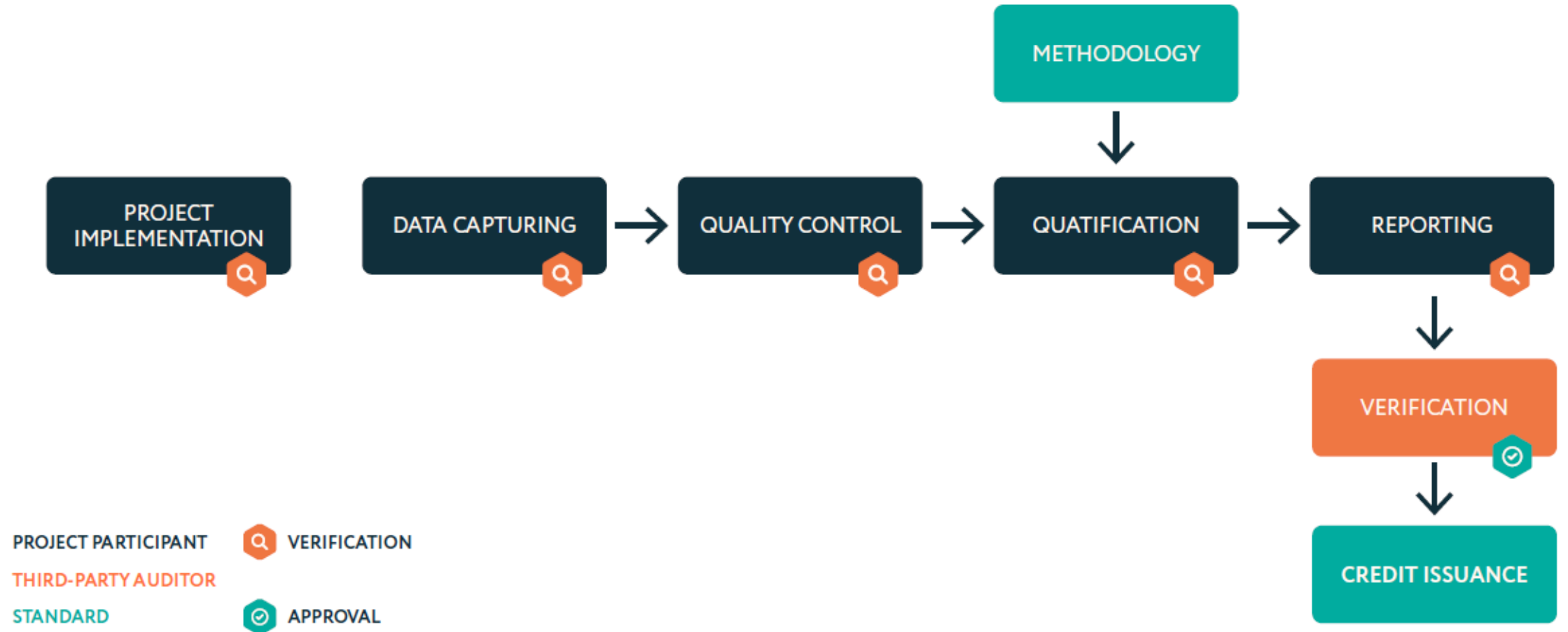
White Paper
Zurich, 12 July 2022
Martin Soini, Anik Kohli, and Juerg Fuessler (INFRAS)



mRV

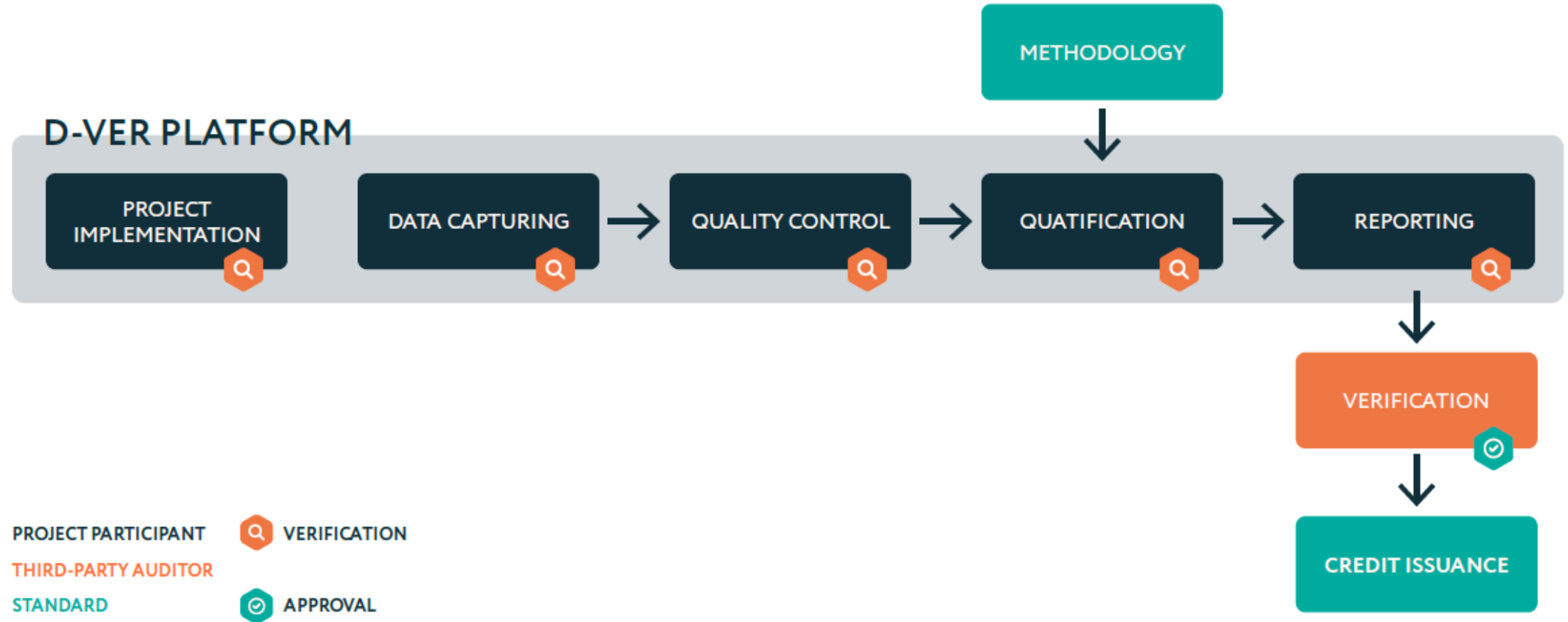
Use cases digitalisation of reporting and verification

Verification of a Carbon Project



Source: [White Paper «Principles for Best-Practice Digital Verification»](#)

D-VER Platform



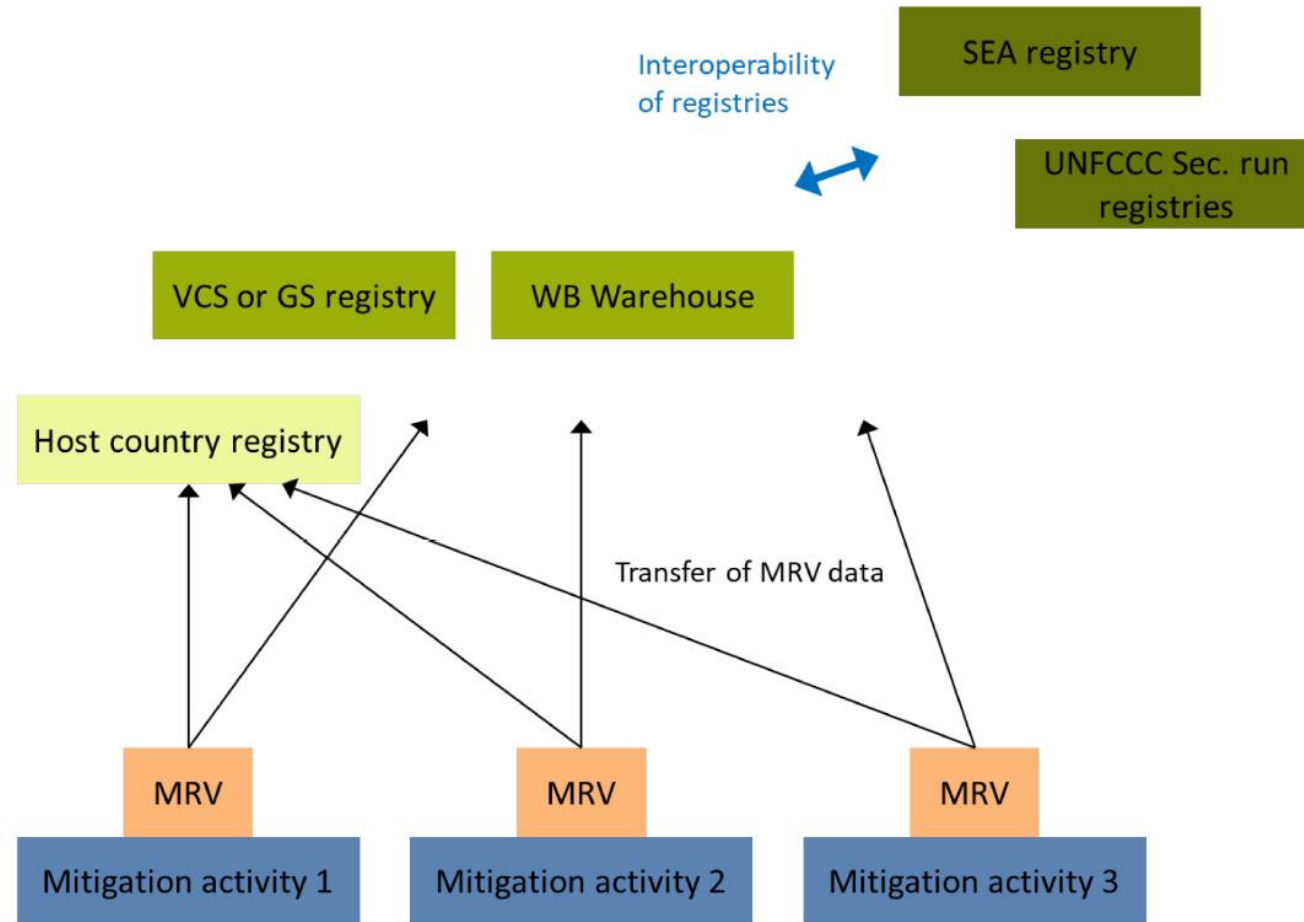
Source: [White Paper «Principles for Best-Practice Digital Verification»](#)

PRINCIPLES FOR BEST-PRACTICE DIGITAL VERIFICATION

A contribution to the discussion
on digital verification

Digitalisation of Article 6 registry infrastructure

Registry Systems in new world of Article 6 market mechanisms



Source: [SEA Report on Blockchain-based Article 6 Registries](#)

CARBON LIMITS

INFRAS

THINKING
FOR
TOMORROW



Öko-Institut e.V.

Infrastructure for Article 6 MRV and transfers – the potential of blockchain-based technologies

Final Report
24 November 2021

In cooperation with



C O S M O S

CLIMATE | LEDGER
INITIATIVE

Source: [SEA Report on Blockchain-based Article 6 Registries](#)

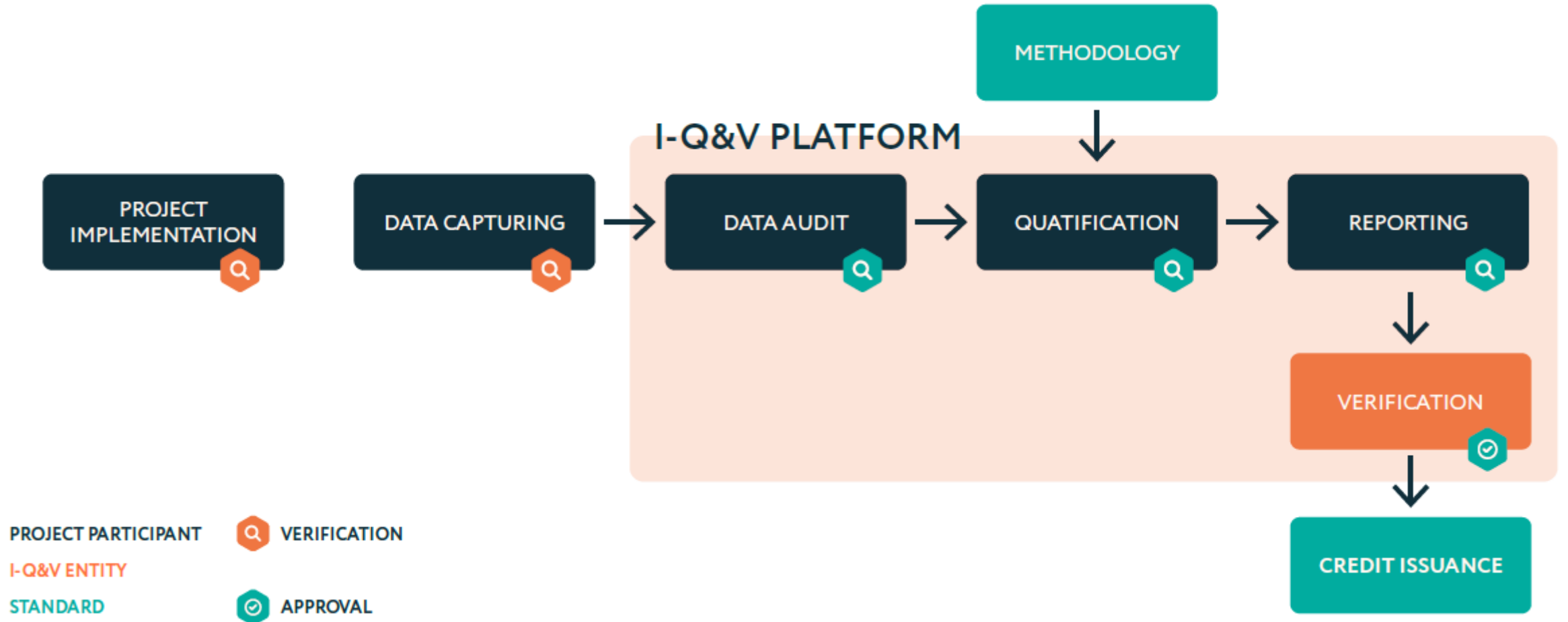
Thank you

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Integrated Quantification and Verification



Source: [White Paper «Principles for Best-Practice Digital Verification»](#)