CLEVER

CLEVER-
Creating Legitimate Emission Factors for Verified GHG Emission Reductions in Transport

Calculation Methodology Development Driving Transparency and Setting the Standard

CLEVER

2016 - 2022

GLEC Framework was the only **globally recognized methodology** to calculate GHG emissions consistently across the **multi-modal logistics supply chain**.

Recognized by

BUILT ON GHG PROTOCOL · CDP DISCLOSURE INSIGHT ACTION · SCIENCE BASED TARGETS · CLIMATE & CLEAN AIR COALITION TO REDUCE SHORT-LIVED CLIMATE POLLUTANTS

Used by

200+ Multinationals

50+ Programs, tools, initiatives

2023

ISO

ISO 14083 published in March 2023, **based on the GLEC Framework** to enable a tighter application structure.

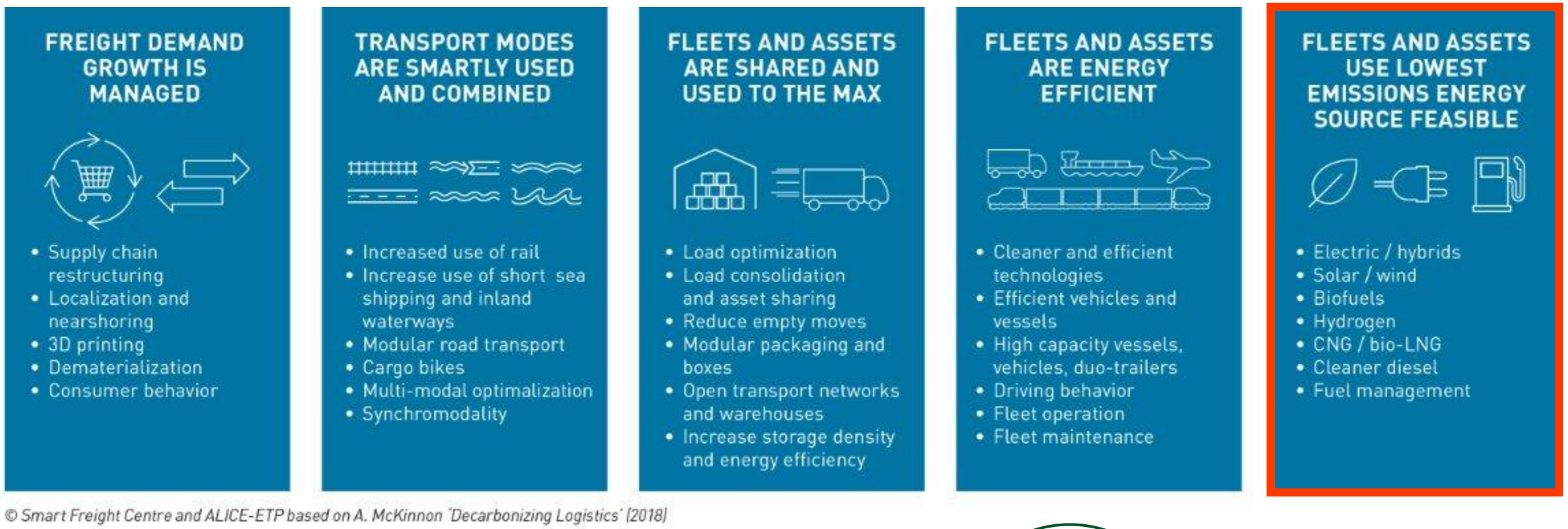
GLEC FW to co-exist to ensure accessible and detailed industry guidelines supporting the ISO standard.

Funded by the European Union

This project has received funding from the European Union's Horizon Europe research and innovation program under grant agreement N° 101146908

Where does the Emission Factor Fit in?

CLEVER



© Smart Freight Centre and ALICE-ETP based on A. McKinnon 'Decarbonizing Logistics' (2018)

Tonnes CO_2e = **Energy** x $\frac{CO_2e}{energy}$ → Emission factor

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CLEVER: Creating Legitimate Emission Factors for Verified GHG Emission Reductions in Transport

Rationale behind CLEVER:

- Emission factors are used in every GHG calculation
- Many emission factor sources available
- Lack of clarity and consistency
- Lots of interested / impacted stakeholders
- International perspective

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Project Objectives

- Define a comprehensive **Emission Factor methodology**
  - Impartial, comprehensive, clear, specified, transferable
- Achieve a **consensus-based** solution via technical dialogue
  - State-of-the-art, gaps and developments
- Provide accompanying **guidance** and ‘validated’ **set of default emission factors**
  - Provide starting point for EC database
- **Market access** to the project outputs

CLEVER PRINCIPLES

Independence

CLEVER is made a diverse group of partners from different countries and segments of the transport industry and it is funded by the European Commission.

Transparency

CLEVER's sources, reasoning and choices are public.

Accountability

CLEVER is committed to ensuring that all partners take responsibility for their contributions and decisions, fostering trust and collaboration within the project. Each deliverable is reviewed transparently, and mechanisms are in place to address challenges collectively.

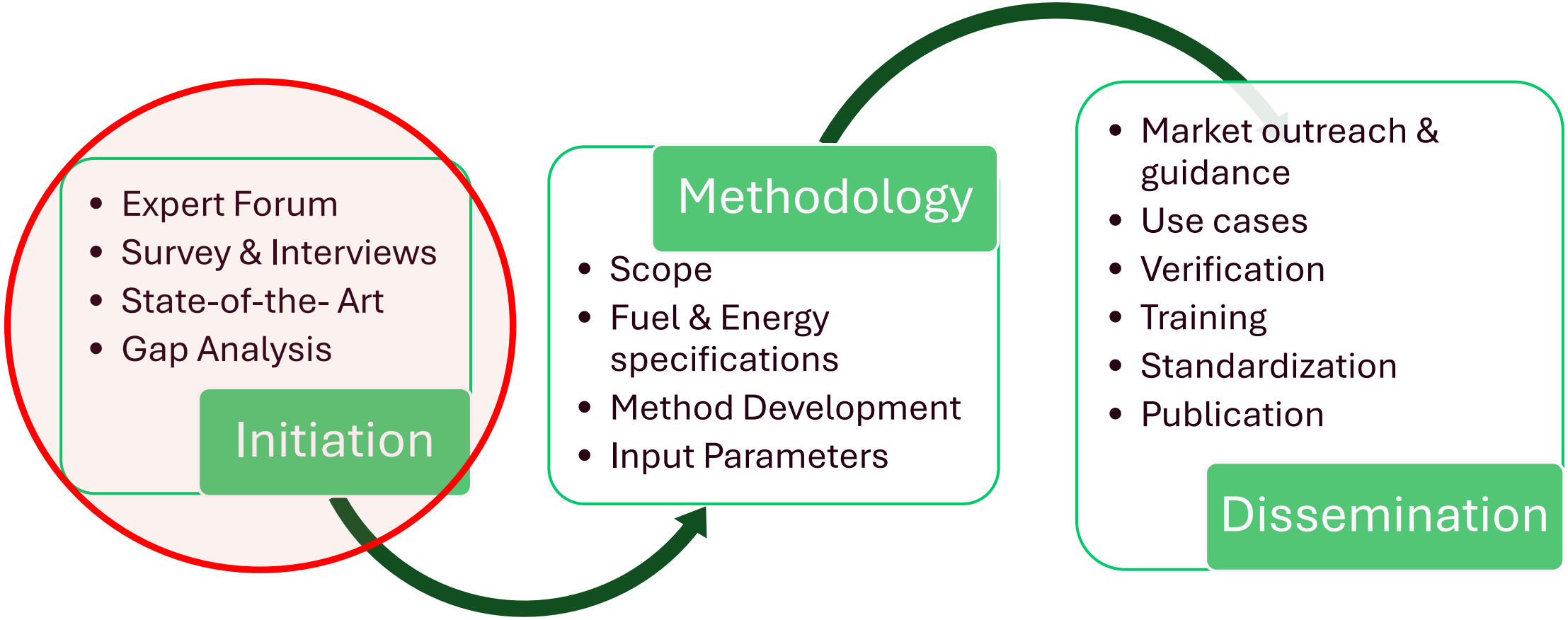
Global vision

Although most of its members are based in the EU, CLEVER scope is global.

Usability

We aim to facilitate emission factors calculation: we will stress-test our methods with periodic consultations with the Expert Forum and external stakeholders, and through an open call for real-world use cases.

Initial Stages



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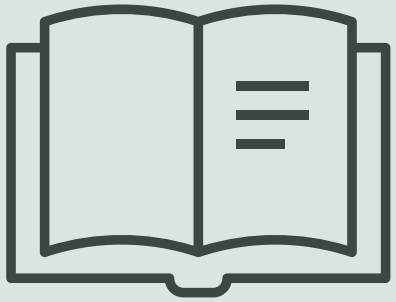
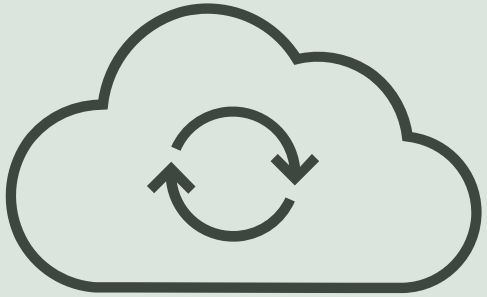
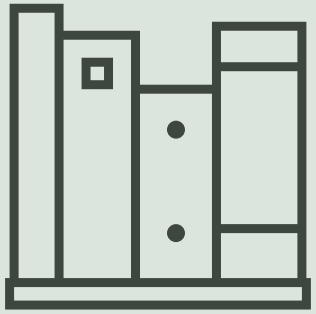
Gap Analysis Report

Identify gaps, inconsistencies and linked developments to improve emission factors and their use; i.e. to shape the rest of the project:

- Boundaries, assumptions and overall methodological approach
- Energy carrier coverage and influence on consistent / comprehensive methodology
- Contribution from different life-cycle phases

- Influence of regulation, reporting structures and broader user needs

High-level Findings

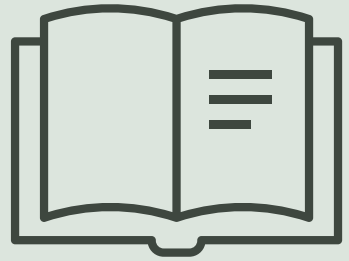
Development of emission factors = LCA

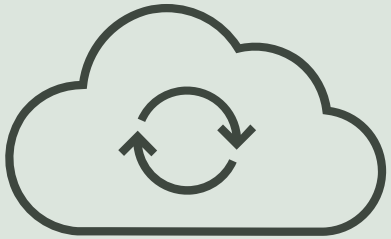
- Match the approach and boundary to the defined purpose
  - Apply it consistently and comprehensively
- Gaps occur due to:
  - Processes omitted
    - Fully or partially
    - Intentionally or accidentally
  - Data missing
- For users, inconsistency in application is as influential as gaps
- → consensus over rules is critical to meaningful result(s)

High-level Findings

Consensus over ‘rules’ is critical to meaningful result(s)

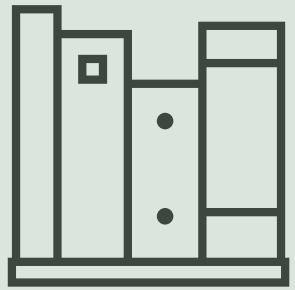
- Balance detail vs applicability (e.g. by geography or timing) – where to draw the line?
  - Global values in a truly global market vs national values in a localized market
  - Market-based values linked to commercial choices



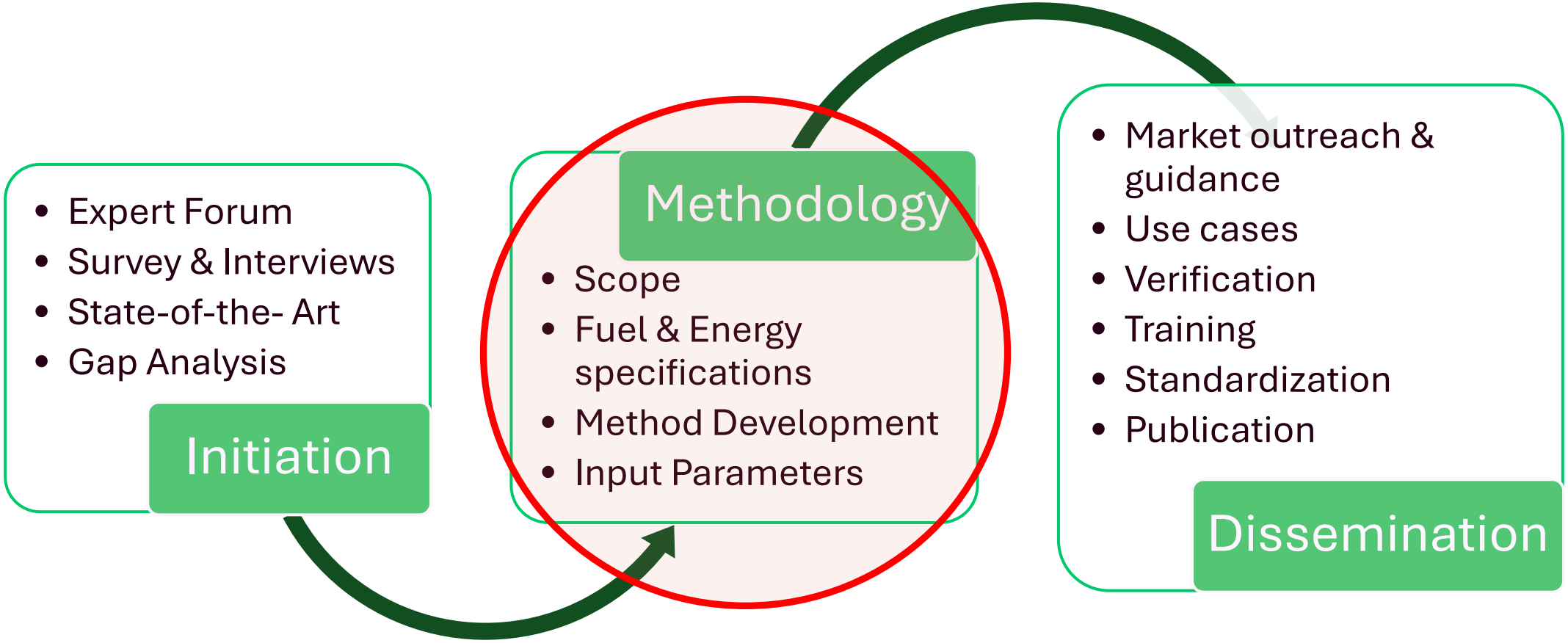


Interviews told us:

- Increasing lack of trust
- More transparency
- True harmonization and transparency/explanation
- Greater awareness and willingness of stakeholders to engage…



Current Status



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OUR VISION

The harmonized framework of emission factors will support quantification of baselines and tracking of emission reductions.

CLEVER outputs are designed to support EU directives and potentially inform international standards like CountEmissions EU.

Join our journey

Subscribe to our quarterly newsletter

Enroll in the CLEVER Repository

CLEVER

www.emissionfactors.eu

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