Smart Freight Centre

GHG Calculation and Reporting for RoRo Vessels

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Smart Freight Centre

We are a global non-profit organization focused on reducing the emission impacts of global freight transportation.

We guide the global logistics industry by tracking and reducing its greenhouse gas emissions by one billion tonnes by 2030 and to reach zero emissions by 2050 or earlier.

We collaborate with over 150 multinational member and partner organizations to quantify impacts, identify solutions, and advocate logistics decarbonization strategies.

Smart Freight Centre

We guide the logistics industry to zero emissions

How we make an impact

Drive transparency and set the standard
to simplify, increase efficiency and measure performance

Facilitate solution pathways and catalyze collaboration
to share knowledge and act together

Educate, collaborate, and scale-up organizations
to allow the sector to accelerate decarbonization

Smart Freight Centre convenes and leads global communities

GLEC Global Logistics Emissions Council

Methods and guidance to decarbonizing logistics

Clean Cargo

Decarbonization Pathways Marine Transportation

Clean Air Transport

Decarbonize Air Transport

Sustainable Freight Buyers Alliance

Uniting freight buyers for joint action

Smart Freight Centre China

Decarbonize Freight in China

Smart Freight Centre India

Decarbonize Freight in India

Smart Freight Centre

GLEC
Global Logistics Emissions Council

Where does RoRo fit in?

Drive transparency and set the standard

2016 - 2022

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

Recognized by

Used by

150+ Multinationals

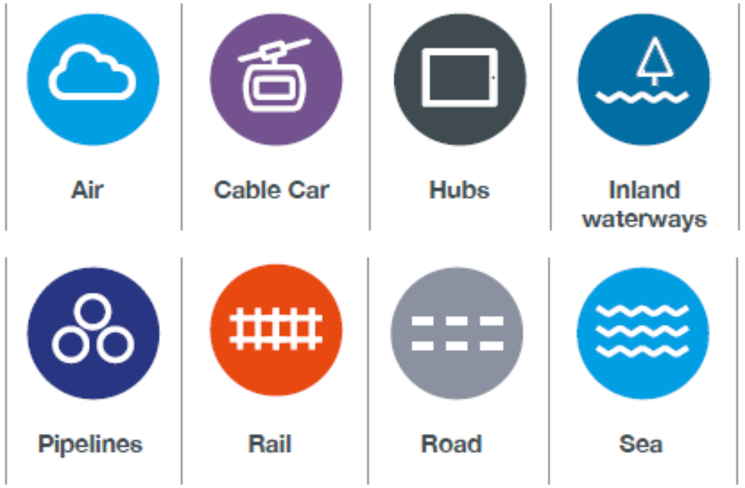
20+ Programs, tools, initiatives

2023 onwards

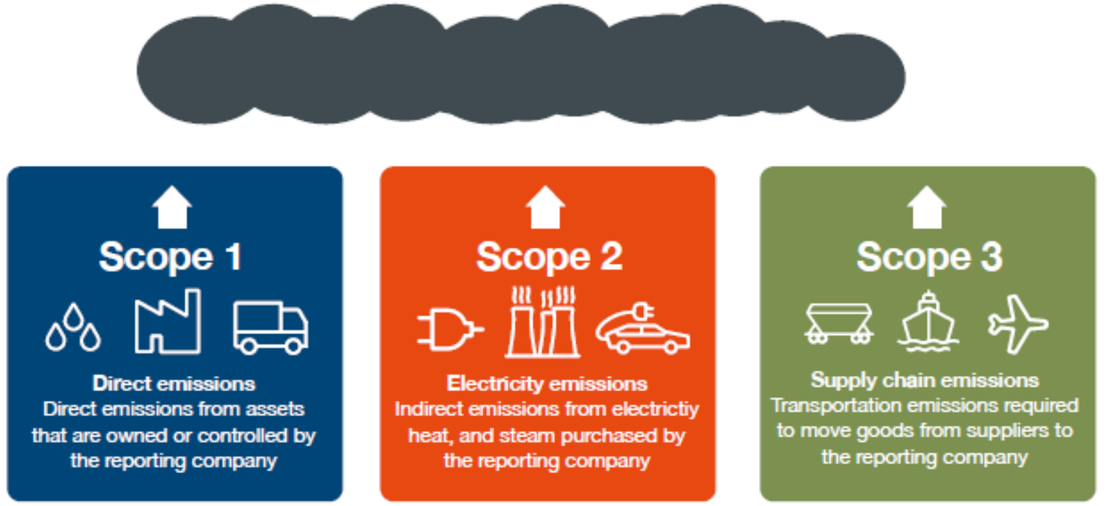
- **ISO 14083** was published in March 2023 and is **based on the GLEC Framework** to enable a tighter application structure.
- GLEC Framework v. 3.0 published in September 2023, will co-exist to ensure accessible and detailed industry guidelines, supporting the ISO standard.

What to include in emission calculations

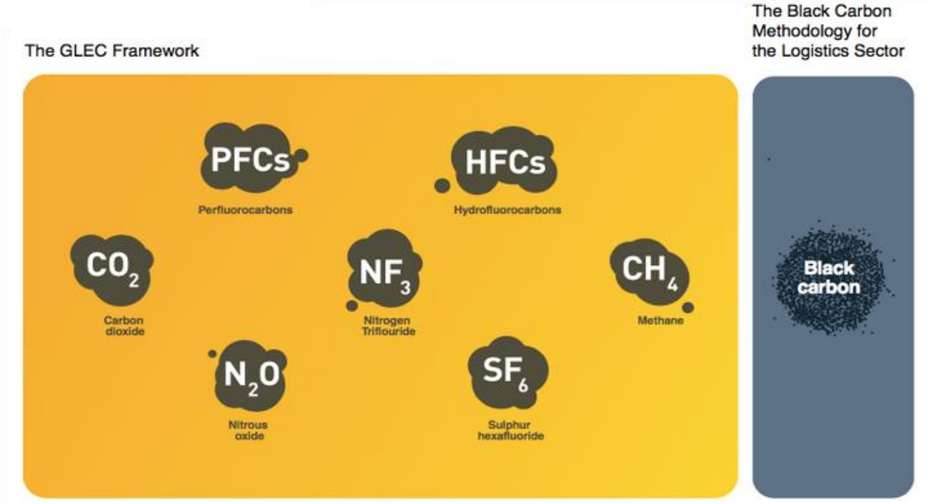
ALL Modes



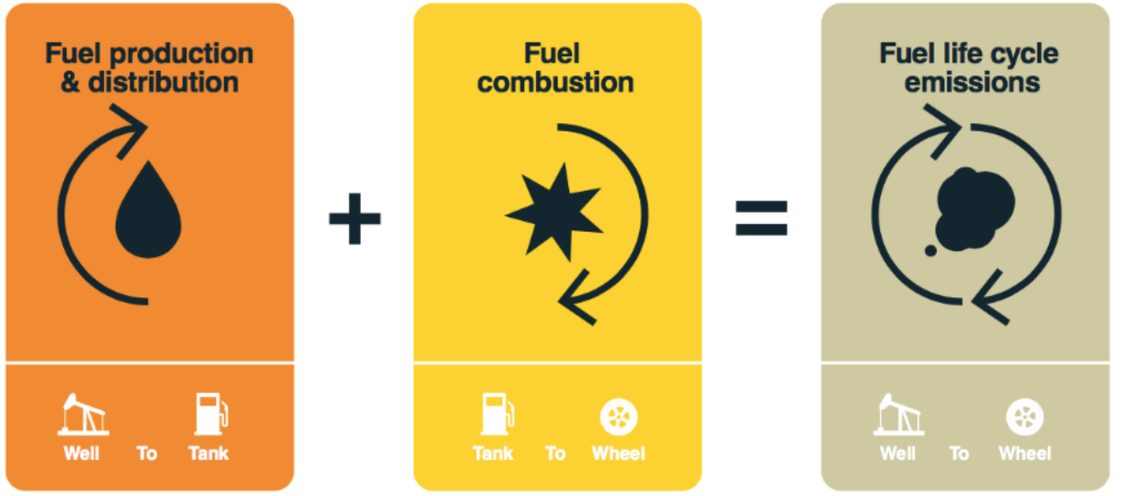
TOTAL SCOPE



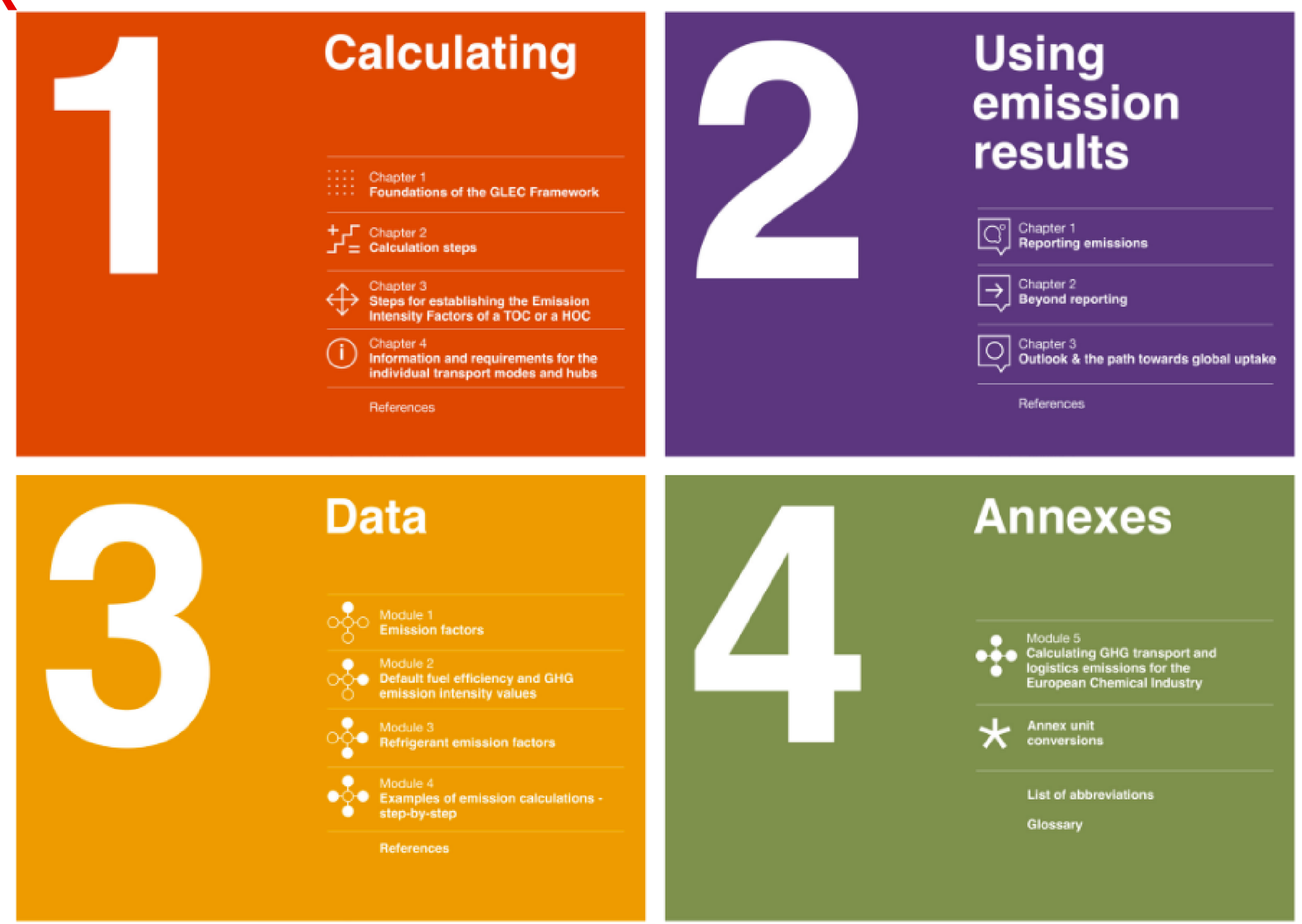
ALL GHGs



FULL LIFE CYCLE



GLEC Framework Structure



RoRo Sector Guidelines

Process 1

ECG as SFC’s client

Forms part of wider automotive sector guidance development

Working group comprised ECG & members

- Collaboration
- Consultation
- Consensus

RoRo Sector Guidelines

Process 2

Review:

- Existing methodology reference points
- Current industry practices
- Gaps and inconsistencies

Key topics:

- Use of primary data
- Defining transport operation categories
- Allocation parameters
- Reporting KPIs
  - Distance
  - Emission factors – work ongoing to align with other maritime initiatives

Outcomes

TOC definitions

- Vehicle carrier (PCC & PTCC)
- Con-Ro
- Ro-Ro (‘Ro-Ro cargo’/’high and heavy’)
- Ro-Pax

- Distinguish between short-sea & deep-sea vessels

Fleet level aggregation within the above categories

- initially per calendar year, moving to quarterly once established

Exception: time- and bareboat chartering

Outcomes

Primary measure of transport activity (for allocation and reporting)

= tonne km

Complementary measure **for allocation** is based on ‘cargo equivalent unit’

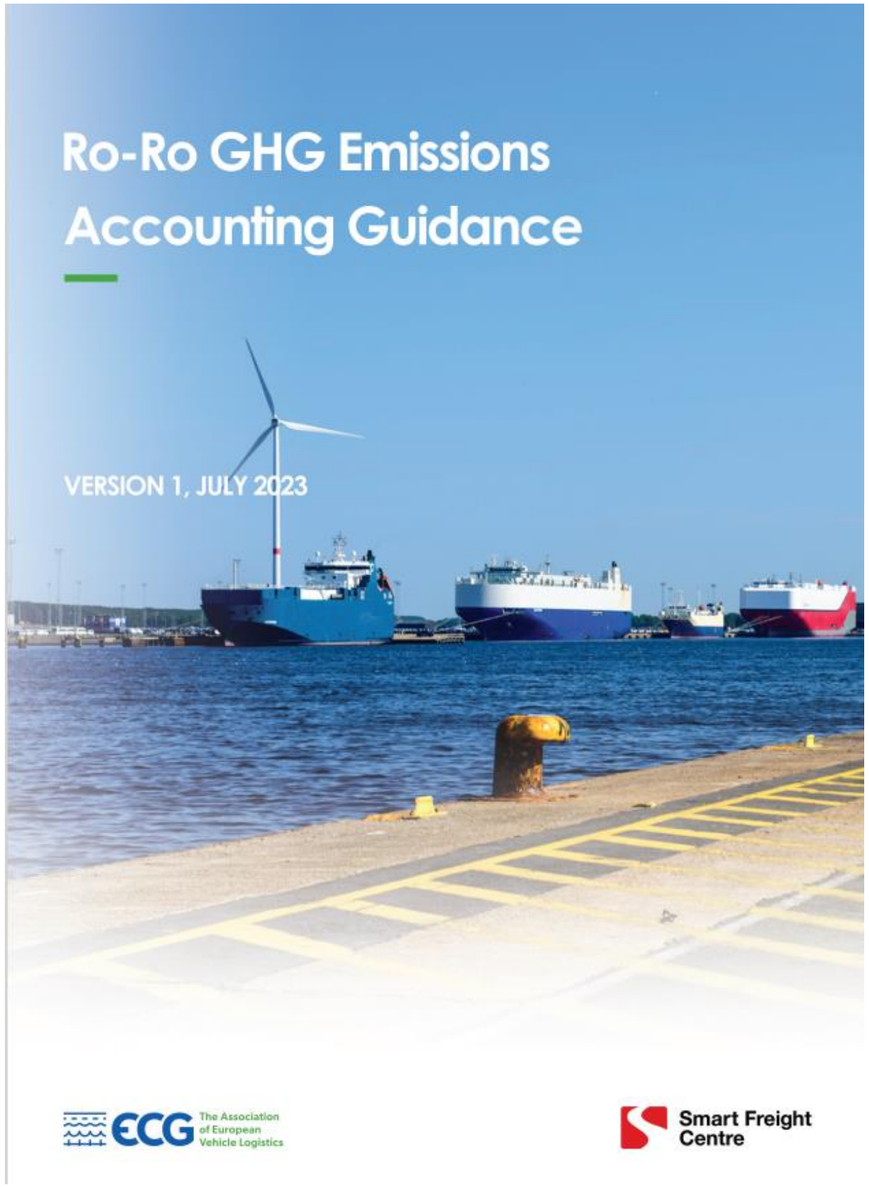
- Reflects volume and mass
- Avoids disproportionate allocation of emissions to either freight or passengers

Reporting to show both

- Total GHG emissions, WTW basis, expressed as mass of CO_2e
- GHG emission intensity (aligns to IMO’s EEOI), expressed as CO_2e/tkm

Guidance available at

https://www.ecgassociation.eu/activities/sustainability-working-group/



Future Development

All guidelines are subject to:

- Top-down changes in scientific knowledge or reporting requirements
- Pragmatic industry feedback

WTW Emission factors – currently an intermediate list

Is there demand for a data sharing program?

Smart Freight Centre

Join our journey towards efficient and zero-emissions global freight and logistics

Contact
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