1. Purpose of this document:

The purpose of this crosswalk document is to outline and explain the changes made to the GLEC Framework between versions v3.1 (October 2024) and v3.0 (September 2023). It serves as a guide to help users of the Framework understand how the new version differs from the previous one, ensuring a smooth transition to the updated guidelines.

2. Objectives:

- **Mapping Changes:** The document will provide a comparison between the two versions, identifying specific sections that have been updated, removed, or added. This allows users to quickly identify what has changed without needing to review the entire framework.
- **Clarifying Updates:** For each change, the crosswalk document will offer explanations or justifications for why these updates were made, e.g. due to technological advancements, regulatory shifts, or user feedback.
- **Ensuring Compliance:** Stakeholders who rely on the GLEC Framework for environmental reporting can use the crosswalk document to ensure they remain compliant with the latest standards.

3. Key

1	Updated content
2	Expanded content
3	Reduced content
4	New content
5	Removed content

4. Crosswalk

Paragraph	Headline	Key	Summary of change
Introduction			
	Foreword	1	Updated figures on the percentage of global GHG emissions freight transport contribution and the expected freight transport demand by 2050. Updated author's job title Updated text on third party assurance
	Acknowledgements	1	Updated disclaimer to give more clarity. Updated the organization of contributors Updated Smart Freight Centre introduction according to our latest boiler plate
	Structure of the document	1	Updated page indication Updated copyright and reference permission Updated suggested citation SFC internal document control ID added

Paragraph	Headline	Key	Summary of change
	Introduction to Logistics Emission Accounting - Freight transport's Climate Impact	1	Updated figures for transport demand prediction, and the prediction of logistics emission contributed per transport mode in 2050 (big infographic). The update is based on International Transport Forum Outlook 2023 report
	How to use the GLEC Framework	2	Added to refer the readers to the last page of change overview table for the summary of v3.1 updates
	- Scopes of Accounting	1	Update the description of Scope 3 emissions to be more accurate
Section 1: Calculating			
Chapter 1	Foundations of the GLEC Framework	1	Updates on table 1. Overview of emissions accounting and reporting methods which are harmonized in the GLEC Framework. As we are using updated standards for Hubs and Rail.
Chapter 3	Steps for establishing the emission intensity of a TOC or a HOC	1	Typo correction in the infographic
References		1	The reference page was updated with new sources used in this revision. The hyperlinks of the old sources are also reviewed and give new access date.
Section 2: Using emission results			
Section 2 Chapter 1	Reporting emissions	2	Correction on the definition of scope 3 category 8 & 13 in the info box: additional reporting requirements by other standards
Section 2 Chapter 3	Outlook & the path towards global uptake	2	Updated text in the paragraph for Data Exchange and Assurance, following the evolving work in SFC projects and the SFC Conformity Assessment Scheme (CAS).
Section 2 References		1	The hyperlinks of the sources have been reviewed and given new access date.
Section 3; Data			
Module 1	. **Emission factors**		
	- Biogenic GHG emissions factor	4	We included the biogenic GHG emissions operational values for the bio-based fuels (in multiple tables) as required for complete Scope 3 reporting under the GHG Protocol.
	- Emission factors table: European & North America sources	1	Update the values in these emission factors table following the updated data source: GREET 2023 & EcoTransIT methodology 2024
	- Emission factors: China sources	4	New content and emission factor table incorporated from the China Default GHG Emission Values report V1.0 (SFC,2024)
	- GHG Emissions from Electricity	4	New content incorporated from Measuring and Reporting the Carbon Footprint of Electric Freight Vehicle Operations: Whitepaper (SFC, 2024)

Paragraph	Headline	Key	Summary of change
	- Marine Fuel Emission Factor	2	New content and emission factors table source from IMO MEPC 81, Infras & Fraunhofer, EcoTransIT World: Environmental Methodology and Data (2024), Fuel.EU Maritime amended & RED II
	- Air Fuel Emission Factor	2	The air fuel emission factor was originally provided separately in the European and North American table. With this update, we are separating it as an individual table and section by recognizing the need to realign emission factors across the GLEC Framework and the IATA recommended practices. With this update, we wish to provide a single set of emission factors for use irrespective of geographic difference
	- Notes about the main sources	4	Additional paragraph to introduce the new data source of IMO MEPC 81
	- Biofuel blends	2	Expanded the number of tables from 1 to 6, to cover the blending options for gasoline/ethanol, diesel/ethanol, diesel/HVO in both Europe and North America
	- Scaling emission factors: GLEC Version 3 to GLEC Version 3.1	2	The scaling factor table was updated and divided into 2 tables to give separate indication for European and North American value.
Module 2	**Default fuel efficiency and GHG emission intensity values**		
	- Distance uplift factor	4	An uplift to the relevant emission intensity values has been included in the GLEC Framework v3.1 to account 'Out of route trips and deviations' equating to the Distance Adjustment Factor (DAF) between the SFD and GCD (for air) and the actual distance. These apply to Air, Road and Sea.
	- Air transport	1	Updated emission intensity table
	- Inland Waterway transport	1	Updated emission intensity table
	- Logistics hubs	1	Updated emission intensity table
	- Rail transport	2	Updated emission intensity table We have changed the electricity emission factor source from IEA global electricity factors (2022) to the latest EcoTransIT technical update and used the railway-specific values, to get closer to the full life-cycle approach recommended by ISO 14083. We added a new sentence to give directions on the uplift for temperature-controlled Rail Freight.
	- Road transport	2	Updated the emission intensity table for both North America and Europe Added a new table for China road emission intensity value sourced from the China Default GHG Emission Values report V1.0 (SFC,2024) Deleted the reference of boarder scope specific data set on request to SFC
	- Sea transport emission intensities	1	Updated emission intensity table for both non-container vessel and container vessel.

Paragraph	Headline	Key	Summary of change
Module 3	Refrigerant emission factors	1	Typo correction on the GWP100 value in the Refrigerant emission factor table
Module 4	. Examples of emission calculations – step-by-step	1	The figures used in the calculation example through this module have been updated due to the changes in the default value in this revision.
	- 1.2 EV operations emission intensity TOC	4	New section added following the inclusion of EV content in this revision, the content here was sourced from the Measuring and Reporting the Carbon Footprint of Electric Freight Vehicle Operations: Whitepaper (SFC, 2024)
References		2	The reference page was updated with new sources used in this revision. The hyperlinks of the old sources are also reviewed and given new access date.
Section 4 Annexes			
Module 5	Calculating GHG transport and logistics emissions for the European Chemical Industry	1	The default emission intensity provided in this module are updated in relation to Module 2. The values used in the calculation example through this Module are updated due to the changes in the default values in this revision.
Version History	Version History	4	A version history table was added to summarize the GLEC Framework updates.

Version history:

1	22/10/24	First edition