

A Common Industry Solution for Digital Reporting of Data Relevant for Maritime Emission Reporting

An open framework by the maritime industry, for the maritime industry — collaboratively developed and globally harmonised

Coordinated by the Tripartite Joint Industry Working Group (JIWG)

Executive summary

The maritime industry faces rapidly increasing requirements for accurate, transparent, and verifiable reporting of greenhouse gas (GHG) emissions across multiple, partially overlapping regulatory and commercial regimes. Regulatory schemes define what must be reported and when, often relying on annual or compliance-period aggregation of verified datasets with prescribed calculation methodologies, system boundaries, and audit requirements. Commercial mechanisms such as charter-party performance reporting, allocation of EU ETS costs, and FuelEU Maritime pooling or penalty settlement increasingly require voyage-, leg- or contract-level outputs on shorter timelines.

In practice, the same operational facts are repeatedly re-mapped, transformed and reconciled as data passes between onboard systems, shore organisations, verifiers and commercial counterparties. Raw operational data is validated against specific schemas, reconciled between onboard and shore records, aggregated to defined sequential and operational boundaries, and processed using rule-based calculations. Because these steps are implemented differently across fleets and service providers, divergent outcomes can occur even when based on similar source data. The result is higher cost, longer cycle times and avoidable inconsistency.

This white paper proposes an industry framework that prioritises interoperability at the interface level when data are collected, enabling consistent exchange and reuse of emissions-relevant operational data while allowing organisations to retain their internal reporting systems. The foundation is the Operational Vessel Data (OVD) framework: a vendor-neutral exchange layer for operational inputs such as log abstracts and noon report extracts. OVD provides shared definitions, structure, units and formats that reduce ambiguity, enable machine-to-machine exchange, and improve traceability. Building on this foundation, the framework also defines Vessel Emission Reports (VER) as standardised output structures for commercial reporting where consistent outputs and explicit assurance status are needed.

Tripartite is an industry forum bringing together representatives from shipowners and operators, shipbuilders, and classification societies to address shared technical, safety, environmental and regulatory challenges through coordinated, non-binding industry dialogue.

A Tripartite Joint Industry Working Group has been tasked to develop common approaches to digitalisation and data exchange that are grounded in operational practice and aligned with regulatory realities. The development of a harmonised framework by the maritime industry itself is essential to ensure that proposed solutions are practical, interoperable, and capable of broad adoption across diverse stakeholders.

The Tripartite JIWG invites industry stakeholders to engage in refining, adopting and governing the OVD-based exchange framework and its associated protocols. Broad uptake of a stable operational exchange layer is the most effective lever for reducing fragmentation, because it supports multiple regulatory and commercial uses without requiring changes to onboard routines or mandating a specific software platform.