Global service built around you

Navigating Decarbonisation Emissions reporting, validation and verification after 2023 15 June 2022



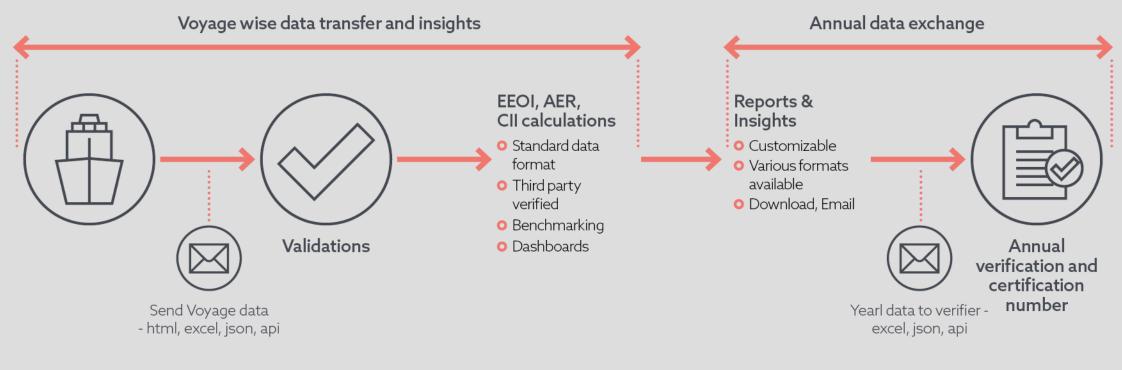
Aviation | airports | shipping



MEMBER O

Verifier flow diagram Engagement / contract Approval of MRV Draft MRV Monitoring 🔺 Start of MRV reporting 🗕 End of MRV Reporting Monitoring Plan 1st Jan N (operator) 31st Dec N (operator) Plan (operator) (verifier) Request & review of docs (verifier) Draft Emission Report Submit verified Enter verification Electronic MRV DOC Purchase and surrender of MRV & list of voyages Emission Report on comments on THETIS on-board by end of THETIS MRV (operator) MRV (verifier) June N+1 (operator) allowance (2024) (operator) Data analysis & review of operational docs sampled (verifier)

Implementation workflow





Features and Benefits

Validations and benchmarking - AIS, Hull & M/C model, data based Reporting - Customizable in various format, review and approval Standard Data structure - ISO 19848 for collaborative value EEOI: Sea Cargo charter compliant pdf/.csv output, 3rd party verified







SMARTVoyager Emissions

Compliance for the Greener Planet



Who are we?

Backed by industry leaders and serial entrepreneurs



Mikael Skov Board Member

CEO Hafnia



Board Member Chairman BW Group Ltd



President Nissen Kaiun



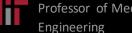
AHEROL Founder / CEO Synergy Maritime GROUP

CLASS 1 MASTER MARINER



Dr. Sanjay Sarma

Advisory Board



Professor of Mechanical



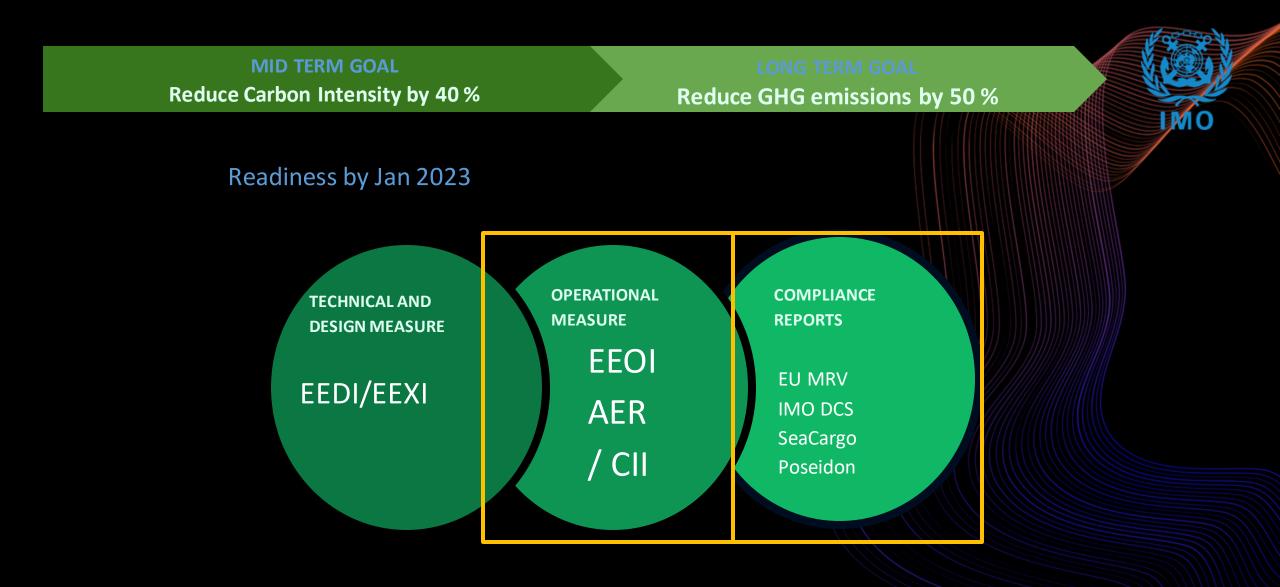
Advisory Board Professor Mathematics



Dr. Kripa Varanasi Advisory Board

Associate Professor and Doherty Chair

Decarbonize: What is needed NOW?

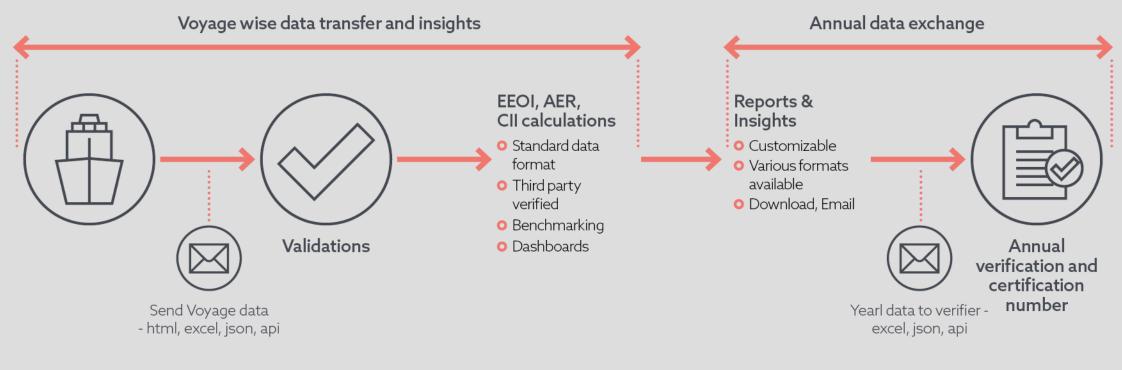


What are the pain points - varying requirements, inaccurate data

Current effort is manual, time consuming, inaccurate and inconsistent

- 1. Time lost: A lot of time is spent in collating data from various logs and noon reports. This is a manual and time consuming reconciliation process.
- 1. Data Quality: Data is often not accurate, has gaps and therefore its reliability could be questionable.
- 1. Communication/Validation/Verification Communication methods and data exchange formats are not uniform, making collation difficult across sources.
- 1. Multiple place of usage for same data If source data and its structure is not same, there is duplication of effort and inconsistencies

Implementation workflow





Features and Benefits

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EEOI Emission Report Sample

| | 1.1 | SSIONS REP SDAY, AUGUST 3 | | | | | | | AGER |
|------------------------|-------------------|------------------------------|-------------------------------|-----------------------------|------------------------|-------------------------|--------------------------|--------------------------|----------------------|
| VE | SSEL / VO | YAGE INFORM | ATION | | | | | | |
| | VESSEL NAME MT FA | | ALCON VOYAGE | R CA | RGO | 0 IF | | | |
| IMO NUMBER | | | 9900001 START PORT | | ART PORT | MARMUGAD | | | |
| VOYAGE REF | | | 062B/062L END PORT | | DHAMRA | | | | |
| CHARTERER | | | FMG | | | | | | |
| EM | IISSIONS | INFORMATION | | | | | | | ŝ |
| BALLAST EMISSIONS (mt) | | | | LADEN EMISSIONS (mt) | | | TOTAL EMISSIONS (mt) | | |
| 561.17 | | | | 1675.76 | | | 2236.93 | | |
| | | | | EEOI (g-CO2/ton-nm) | | | | | |
| | | | | 6.70 | | | | | |
| vo | YAGES | | | | | | | | |
| Condition | | Departure Port | Voyage Start Date (UTC) | Voyage End Date (UTC) | Total Distance (nm) | Total HSFO Cons.(mt) | Total VLSF0 Cons.(mt) | Total LSMG0 Cons.(mt) | Cargo Onboard(mt) |
| 1 | Ballast | Marmugao | 18-Aug-21 2:00 | 22-Aug-21 6:30 | 1269 | 179.9 | 0 | 0.3 | |
| 2 | LADEN | Mina Saqr | 22-Aug-21 6:30 | 28-Aug-21 6:12 | 162.5 | 57.8 | 0 | 14.4 | 108386 |
| з | LADEN | Khor al Fakkan | 28-Aug-21 5:12 | 06-Sep-21 11:30 | 2919 | 465 | 0 | 0.5 | 108386 |
| 4 | Ballast | Dhamra | | | | | | | |



Questions

Please add to chat or send an email after the event to any of today's presenters:

Mark Smith: mark.smith@nepia.com Helen Barden: helen.barden@nepia.com Nicolas Ducehene: nicolas.duchene@verifavia.com Piyush Raj: piyush@alphaori.sg

Or request a meeting.



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Navigating Decarbonisation Emissions reporting, validation and verification after 2023 Thank you



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