



Founded in **1972**
 Now **World's Largest Independent Feeder Carrier**



Decarbonisation Steps

- 14 Dual-Fuel Methanol Vessel Fitted with German-designed MAN 5S50ME Dual-fuel engines capable of operating on conventional fuel or green methanol.
- Firm Contract for the supply of methanol Fuel



- 03 dual-fuel vessels delivered this year.
- First vessel, Eco Maestro delivered in May' 2024 is operating on methanol in Europe.
- 65% less CO_{2e} emissions in terms of main engine propulsion



METHANOL BUNKER & CARGO OPERATION



Location
SINGAPORE – TUAS Port

Key Partners
MPA, PSA, Bunker Supplier, Trainers

Process : Approval & Schedule

Preparations :

- Compatibility Study between vessels.
- Safety consideration & Risk assessment.
- Workshop to align the plan with all stakeholders
- Pre-ops meeting for final run-through.

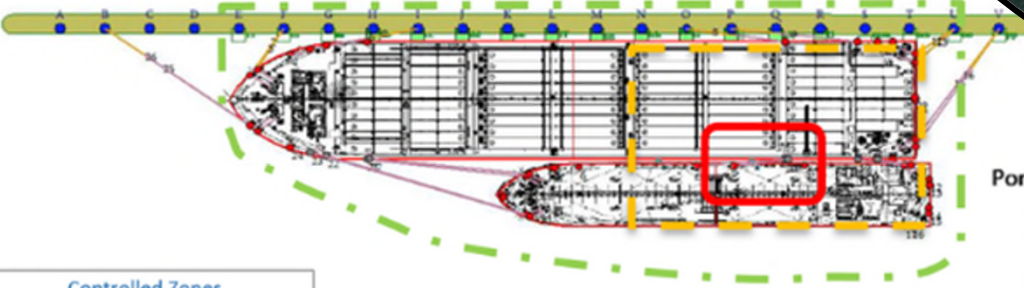


Risk assessment & Safety consideration

- PPE Matrix developed for SIMOPS
- Portable Thermal Cameras provided onboard.
- Controlled Zones identified for operation.
- Joint operation plan developed for SIMOPS
- MOPO : Matrix of permitted operation.
- Live monitoring from Bridge & control room.

Accomplishment:

SIMOPS completed successfully on 27th May' 2024, however, industrywide engagement is required with mindset of learning & knowledge sharing for continuous improvement.



Controlled Zones	
	Hazardous Zone
	Safety Zone
	Monitoring & Security Zone

Portable Lightning Detector:



Thermal Camera



Daily Use – Intrinsically safe



	Ear Protection		Safety Gloves		Gloves Chemical Resistance
	Boiler Suit		Eye Protection Chemical		Safety Boot Rainwear
	Safety Helmet		Face Shield Visor		Methanol Gas Meter
	Eye Protection		Apron Chemical Resistance		Boiler Suit Rainwear