



Decarbonizing Shipping: Lessons Learned and Steps Ahead



Global Sustainability Conference, 25 February 2026

Laura.LONZA@ec.europa.eu

European Commission – DG CLIMA



Outline

- Why shipping?
- EU regulatory framework
- Lessons learned so far
- Steps ahead
- Concluding considerations

Why the EU is acting on shipping

- As part of the “European Green Deal”, all sectors, including shipping, must move towards climate neutrality (net zero emissions) by 2050.
- The EU’s target:
 - At least 55% less greenhouse gas emissions by 2030 (compared to 1990)
 - Climate neutral by 2050

Main EU laws for shipping decarbonization

EU Emissions Trading System (EU ETS)

- Cap-and-trade carbon market: “allowances” per tonne of CO_{2eq} are surrendered by regulated parties, including shipping companies: cost depends on carbon price.
- How it applies to shipping:
 - As of 1 January 2024, large ships (> or = 5000 gross tonnage) using EU ports, covering:
 - 100% of emissions from voyages within the EU
 - 50% of emissions from voyages between an EU port and a non-EU port
 - 100% of emissions that happen inside an EU port
 - As of 2026, shipping companies must submit allowances for 100% of their ETS-covered emissions.
 - The scope expands from carbon dioxide (CO₂) emissions to include methane (CH₄) and nitrous oxide (N₂O) emissions starting in 2026 (MRV reporting 2024 and 2025).

Main EU laws for shipping decarbonization

FuelEU Maritime

- Sets (well-to-wake) GHG intensity limits on fuel/energy used onboard ships
- Limits get stricter over time: as of 2025 to 2050
- Shipping companies choose how to comply
 - Using cleaner fuels/energy
 - Improving efficiency
 - Optimising across fleet of ships

Main EU laws for shipping decarbonization

'MRV' Regulation

- The EU MRV Regulation (Monitoring, Reporting and Verification) requires ships using EU ports to report their CO₂ emissions, fuel consumption, distance travelled and time at sea each year.
 - Provides transparent data on how much ships emit.
 - Underpins measures, namely the EU ETS and FuelEU Maritime.

Other relevant EU legal pieces for shipping decarbonization

- The Alternative Fuels Infrastructure Regulation (AFIR):
 - Major EU ports must provide onshore power supply (OPS) for ships at berth.
- Energy Taxation Directive (under revision):
 - Aims to remove tax exemptions on fossil marine fuels thus favouring cleaner energy sources.
- State aid and funding rules allow governments to support:
 - Green shipbuilding and retrofitting
 - Port infrastructure for clean fuels
 - R&D for new technologies (e.g. batteries, hydrogen, fuel cells, wind assistance).
- Industrial and research programmes (e.g. Horizon Europe, Innovation Fund)

How does it all fit together?

- MRV: Measures and reports emissions (the “thermometer”).
- ETS: Puts a price on those emissions (the “stick”).
- FuelEU Maritime: Forces a gradual shift to cleaner fuels (the “direction of travel”).
- AFIR: Ensures there are charging points and fuel infrastructure in ports (the “enabler”).
- Funding & state aid rules: Help pay for new technologies and infrastructure (the “support”).
- Together, they:
 - Make polluting more expensive.
 - Make using cleaner options easier.
 - Provide information and capacity to check and induce progress while allowing for timely adjustment of rules.



Lessons learned so far

- Pricing emissions is effective: clear and stable rules are essential
- Infrastructure and ships must transition together
- One size does not fit all
- Global vs regional measures
- Administrative burden is real

Steps ahead

- Implementing ETS and FuelEU Maritime with detailed rules and guidance for:
 - Responsibility of economic operators for compliance with EU ETS and FuelEU
 - Monitoring and verification methods, including for new fuels
- Scaling up cleaner fuels' supply
- Supporting shipping operators in the transition
- Improving digital systems so that data flows smoothly between companies, verifiers and authorities.
- Ensuring integrity: certified fuel/energy emissions profiles, including sustainability attributes, within the boundaries of the EU regulatory framework (consistency and smooth functioning) and globally.
- Ensure enforcement: penalties for non-compliance must be meaningful and applied consistently.

Some considerations on next steps for certifiers

- Contribute to strengthening methodologies for:
 - Life-cycle GHG calculation for marine fuels
 - Chain-of-custody in multi-modal supply chains
- Contribute to improving digitalisation:
 - Standardised data formats and interfaces with operators
 - Tools to support cross-use of data (MRV, ETS, FuelEU, certification)
- Engage with regulators:
 - Provide feedback on practical issues
 - Help refine guidance and avoid conflicting requirements

Thank you for your attention

Questions?



laura.lonza@ec.europa.eu

© European Union 2023

Unless otherwise noted the reuse of this presentation is authorised under the [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/) license. For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.