







EuDA Internal Workshop on EU ETS & other 'Fit for 55' initiatives for Dredgers DG MOVE D.1 – Ricardo Batista 16 February 2022

Ways to reduce maritime emissions

Meeting the climate targets would require significant progress on two aspects:

- Improvement of energy efficiency (covering logistics, design, technical improvements and operations) – *i.e. using less fuel*
- Greater use of renewable and low carbon fuels – *i.e.* using cleaner fuels

1 400 ···· Baseline 1 200 Logistics Energy efficiency 1 0 0 0 Speed reduction 800 Fuel Pathway 600 400 200 0 2025 2030 2035 2050 2020 2040 2045

Units: Megatonnes of carbon dioxide (MtCO,)

DNV-GL (2019) | Maritime Forecast to 2050





Challenges

- To reach the climate targets in 2050, maritime sector should use close to 90% of renewable and low-carbon fuels. Today: fossil fuels over 99% of the fuel mix
- Not a single technological option for the large variety of ship types and trades. Operators are trapped in a "wait-and-see attitude"
- Coordination failure between supply, distribution and demand. Need to address all relevant aspects – fuel production (Renewable Energy Directive); fuel distribution (Alternative Fuel Infrastructure Regulation) and <u>fuel demand</u> – to break the chicken-and-egg issue
- Obligations must be imposed on demand not only to promote investments in supply and distribution, but also to avoid carbon leakage
- Long lead times for fuel supply chains and fleet renewal: need for immediate, yet gradual action



Goals

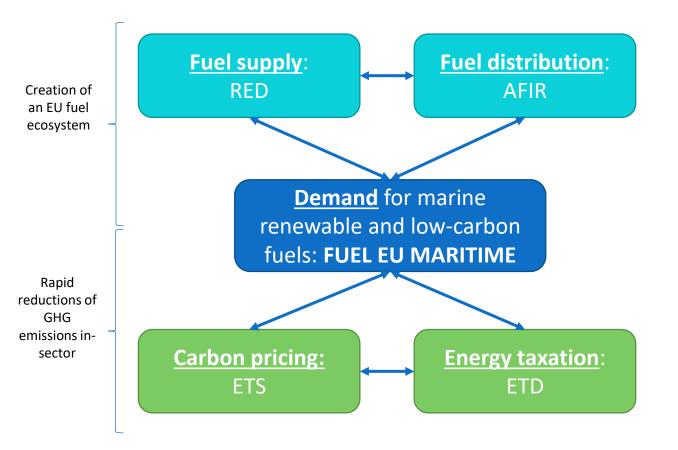
 Complement ETS by specifically addressing the technology issue related to fuels, which may not be sufficiently incentivized by the ETS price signals in the short-medium term

Provide regulatory predictability

 EU supports global measures at IMO, where discussions are ongoing. The <u>EU submission to IMO on a low GHG fuel standard</u> reflects the proposal. Proposal on guidelines on well-to-wake GHG emission is also coherent with the FuelEU Maritime approach



FuelEU Maritime as part of Fit for 55



- Complementary with ETS: ETS promotes energy savings while FuelEU addresses fuel technology.
- Complementary with RED and AFIR: FuelEU addresses fuel demand, RED fuel supply and AFIR fuel distribution
- **Complementarity with ETD**: taxation levels for renewable and low-carbon fuels and for electricity at berth are consistent with FuelEU goals.



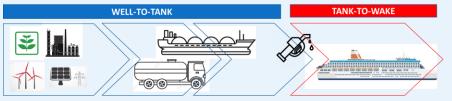
FuelEU Maritime – Proposed Approach

- Focus on fuel and on demand promotion of uptake of renewable and low-carbon fuels for maritime transport
 – complement to Energy Efficiency
- <u>Technology-neutral approach</u>: maritime operators will need to use an increasing proportion of zero and low carbon sustainable fuels, without obligation to use a specific technology
- <u>Establishes</u> limits on the yearly average GHG intensity of the energy used on-board (CO2eq/MJ)

2025	2030	2035	2040	2045	2050
-2%	-6%	-13%	-26%	-59%	-75%

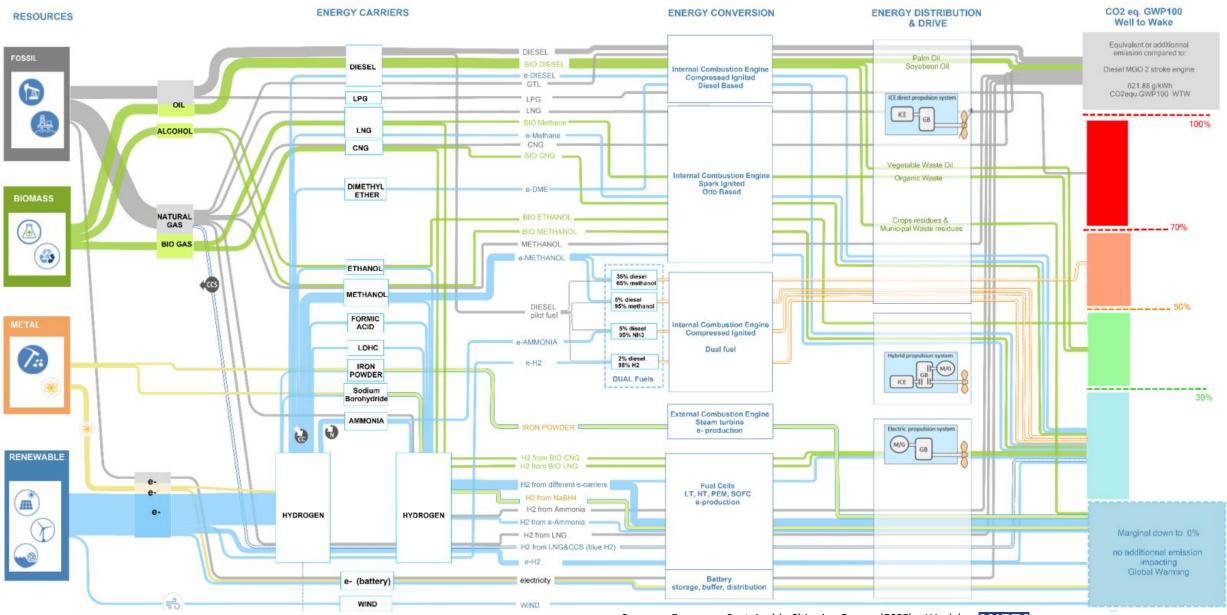
- **Scope:** ships above 5000 GT, intra-EU traffic + 50% international, EU ports (same as for ETS)
- Additional requirement for Zero-Emission at berth (OPS and <u>alternative zero-emission technologies</u>) compulsory as of 2030 for container and passenger vessels (some exemptions up to 2035)

Inclusion of CO₂, methane and nitrous oxide on a full Well-to-Wake calculation: allows fair comparison of fuels



 $GHGe [gCO_{2eq}] = (WtT (fuel, electricity) + TtW (combustion, slip))$

- Flexibility mechanism via banking and borrowing: surpluses and (small) deficits can be carried over to the next year
- Voluntary and open **pooling mechanism** to reward/ incentivise overachievers and encourage the rapid deployment of the <u>most advanced options</u>
- **<u>Non-compliance</u>** deterrent financial penalty
- Monitoring and Reporting is based on MRV approach, with some additional data (e.g. calculation of Compliance Balance)



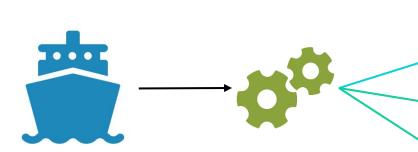
Source – European Sustainable Shipping Forum (ESSF) – Work by MARIN

Why is it so important to be "Technology Neutral" and compare energy options on a Well-to-Wake basis – challenge for fuel certification.



European Commission Mobility and Transport

How would FuelEU work?



OBLIGATIONS: Maximum limits on the GHG intensity of the energy used on board (yearly average) – Article 4

For containers, ro-pax and passenger ships obligation to connect to OPS in ports or be zeroemissions at berth – Article 5 Companies monitor during the year the amount and type of energy in regulated journeys / port calls (using bunker delivery notes and OPS bills) – **Articles 6, 7, 8** Data is scrutinised by verifiers (**Articles 10, 11, 12, 13**) and reported to COM through IT tool (**Articles 14, 15, 16**)

Lower GHG intensity using liquid biofuels, e-liquids, decarbonised gas (including biogas and e-gas), decarbonised hydrogen and decarbonised hydrogen-derived fuels (including methanol, and ammonia), electricity and wind. Certification relying as much as possible on existing schemes, like REDII – **Article 9 + Annexes**

In case of compliance, companies are issued a valid certificate of compliance – Article 19

To provide flexibility and address issues of fuel availability the same ship can bank/borrow compliance surplus – **Article 17**

To reward early adopters and zero-emission ships, pooling of over-compliance is allowed among ships (private law agreements); no transfer of borrowed surplus – **Article 18**

Enforcement is done by checking for the certificate of compliance (**Articles 22, 23**); for non-compliance the company is subject to dissuasive proportionate penalties (**Articles 20, 21**)



In case of disagreement with the work of the verifiers, the companies may request a review (**Articles 24, 25**).



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Ongoing

- Discussion/ Negotiation of the FuelEU Proposal undergoing in Council.
- Link to proposal and accompanying documents: <u>https://ec.europa.eu/info/law/better-regulation/have-your-</u> <u>say/initiatives/12312-CO2-emissions-from-shipping-encouraging-the-</u> <u>use-of-low-carbon-fuels_en</u>

