

How to guarantee green H2 uptake in EU shipping

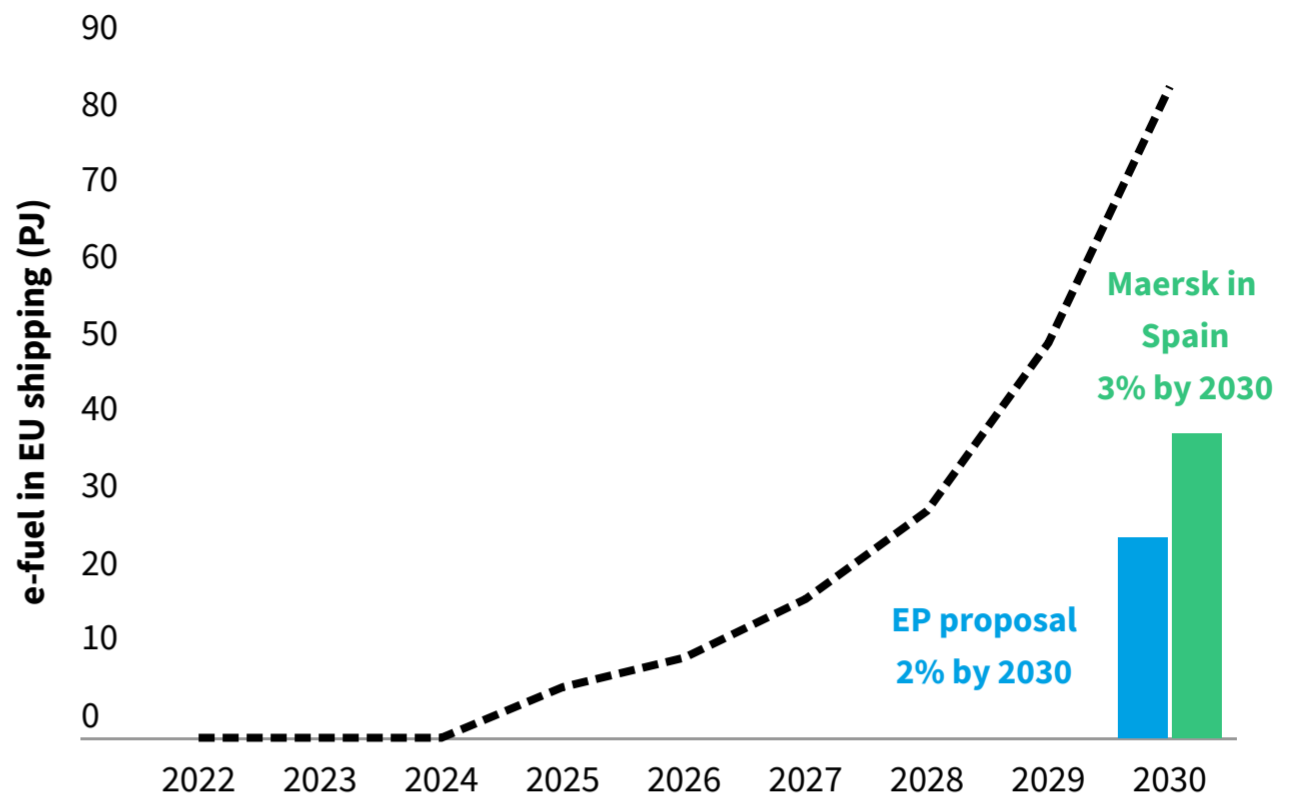
Recommendation 1:

Support EP proposal of **2% green hydrogen** (-based fuel) mandate in EU shipping by 2030 under the FuelEU Maritime Regulation. This will create a guaranteed market and business certainty for H2 investments, such as the one announced in Spain in November 2022. The draft legislation is currently under negotiations between the EU Council and EU Parliament.

H₂ ~205 000 tonnes
guaranteed H2 demand from EU shipping by 2030

~2.2 GW Electrolyser
capacity required for EU shipping demand

~0.8-1.4 bn EUR/2030
investments required to produce e-ammonia or e-methanol (EU 2030 costs, Concawe 2022)

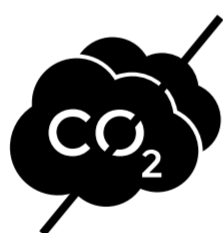


● T&E recommended e-fuel uptake pathway ● EP e-fuel subquota
● Maersk's announcement for e-Methanol production in Spain (2 Mt)

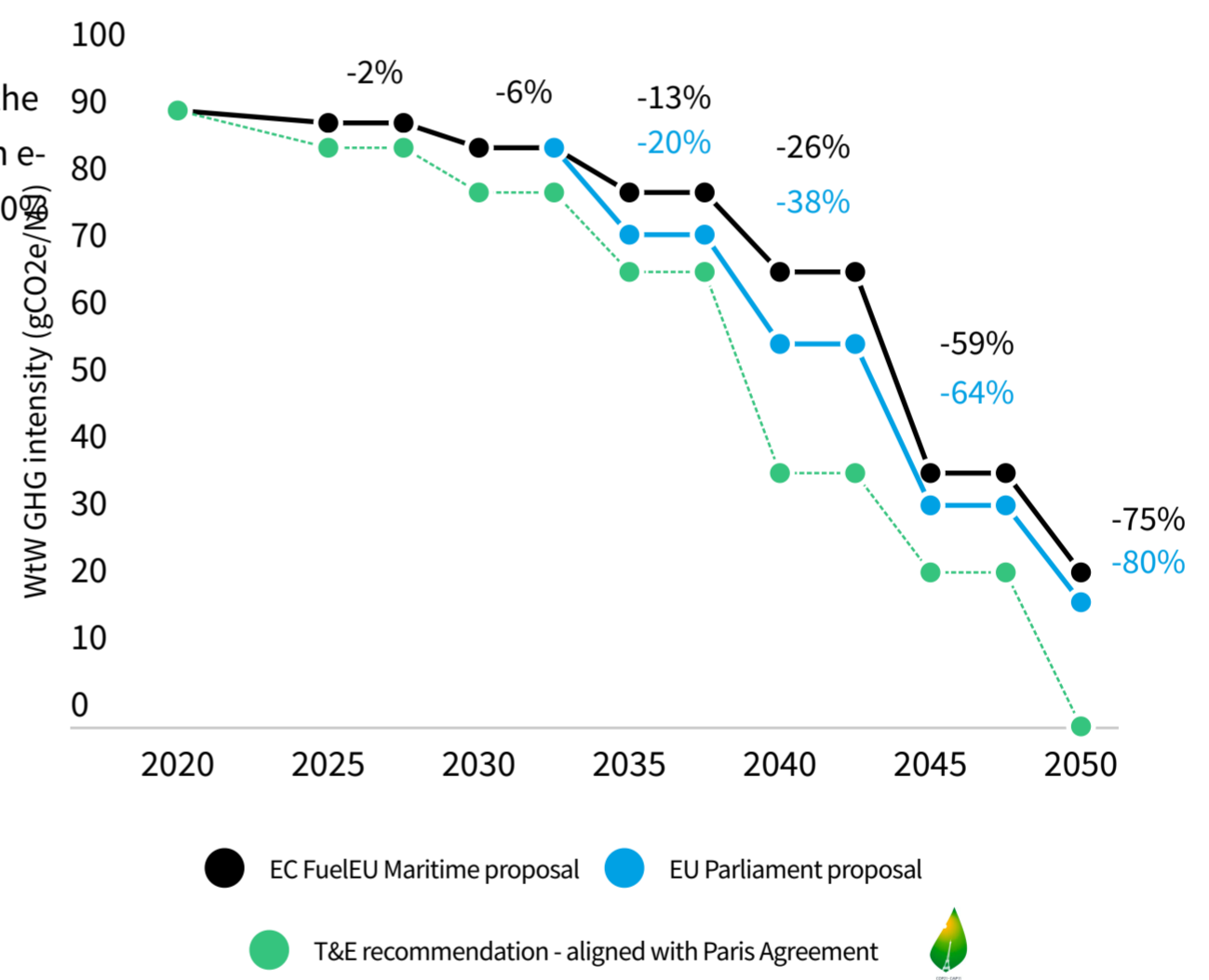
Recommendation 2:

Raise the GHG intensity reduction targets as proposed by the European Parliament to accelerate the fuel switch to green e-fuels. As priority, the 2035 target should be set to at least 20% (instead of 13%).

Even if short of what is needed for the Paris Agreement, supporting the Parliament's proposal to increase GHG reduction targets would achieve:



~150 million tonnes
extra GHG saved by 2050



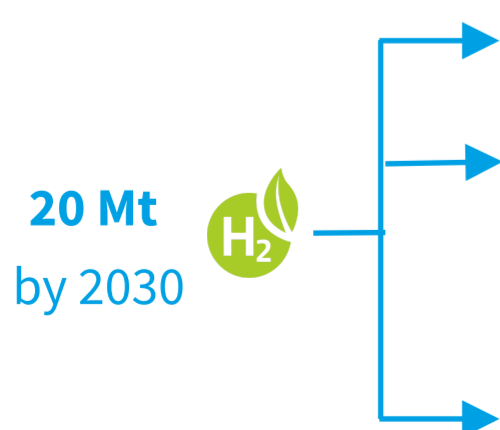
● EC FuelEU Maritime proposal ● EU Parliament proposal
● T&E recommendation - aligned with Paris Agreement

Recommendation 3:

Support the Parliament's proposal to guarantee e-fuel supply to shipping, in line with the RePowerEU Plan:

- mandate fuel suppliers to deliver a minimum share of e-fuels to maritime transport (Renewable Energy Directive III)
- set targets on ports to ensure sufficient roll-out of dedicated e-fuel bunkering infrastructure (Alternative Fuels Infrastructure Regulation)

REPowerEU



Renewable Energy Directive

5.7% of 2030 transport demand to be supplied as RFNBOs in transport sector
1.2% of 2030 transport demand to be supplied as RFNBOs in shipping ~ 1.3 Mt H₂

AFIR targets for ports

Hydrogen and ammonia* targets in ports "to meet demand for these fuels" by 2025

FuelEU Maritime

At least 2% of 2030 maritime demand to be met by e-fuels, eq to ~ 0.205 Mt H₂
+ A multiplier of 2 to boost additional uptake of e-fuels

~514 000 TOE/2030
dependence reduction on Russian oil & gas

*This assumes methanol is already compatible with existing bunkering infrastructure



Potential green H2 demand for shipping in 2030

Currently 99+% of marine fuels are of fossil origin. If the EU mandates a **2% green e-fuel** mandate under FuelEU Maritime, this would represent about **205 000 tonnes of green H2 for shipping alone by 2030**. This compares to 20 million tonnes currently aimed for all applications (RePowerEU). Should current bunker sales across European countries remain stable, the below map illustrates how much green H2 a 2% subquota would represent per country to supply shipping needs.



Thousand tonnes of green Hydrogen (using e-ammonia as the final product)

0 10,000 20,000 30,000 40,000 50,000