



SUSTAINABLE & SMART **MOBILITY STRATEGY**

Policy initiatives driving the uptake of
alternative power solutions for shipping
in the EU



EMSA Workshop on Alternative Fuels, 18-20OCT 2022

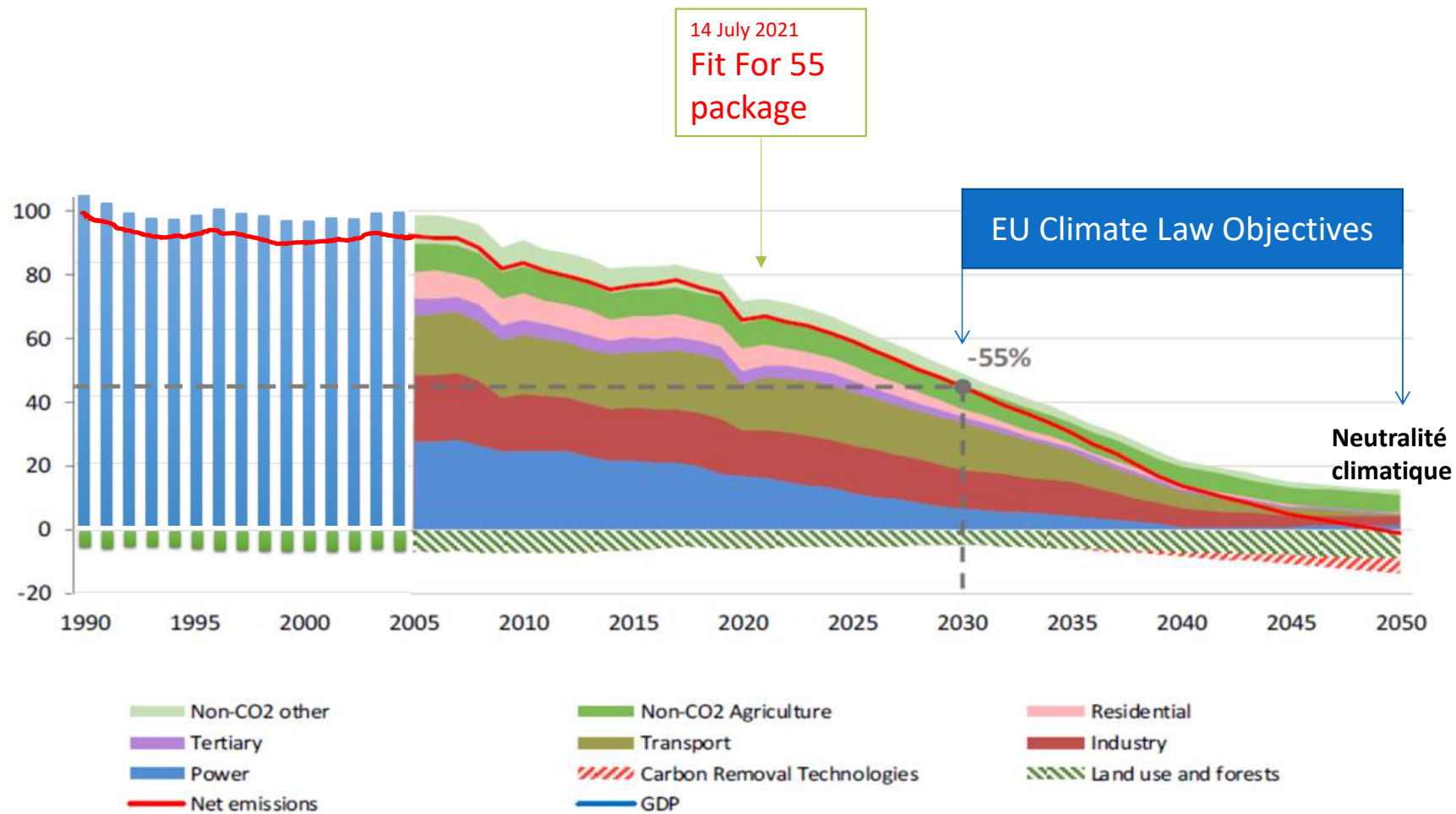
Ricardo Batista, European Commission,
DG-MOVE

Mobility and
Transport

Context

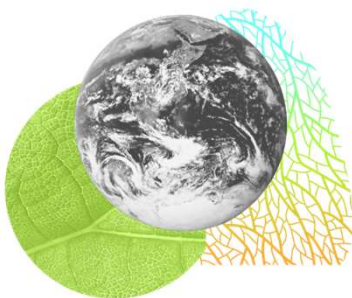
- December 2019 – the Commission Communication and roadmap: **the European Green Deal**
- March 2020 - the Commission proposal for the **EU Climate law** – to mandate the goals set out in the European Green Deal.
- September 2020 – the Commission Communication and impact assessment - the **2030 Climate Target Plan** calling to:
 - to **cut EU GHG emissions by at least 55 % in 2030**
 - to **become climate neutral in 2050**
- The EU Climate law entered into force July 2021
- In July 2021, the Commission proposed the **Fit for 55 Package** to implement the Climate Target Plan

EU pathway to climate neutrality

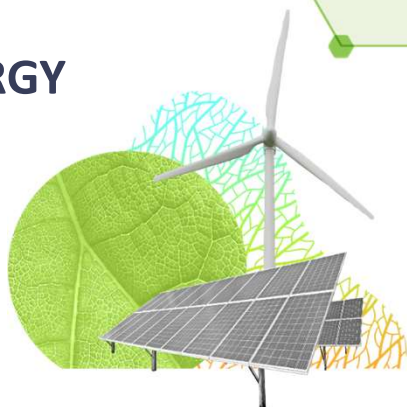


Delivering on the 2030 commitment

CLIMATE



ENERGY



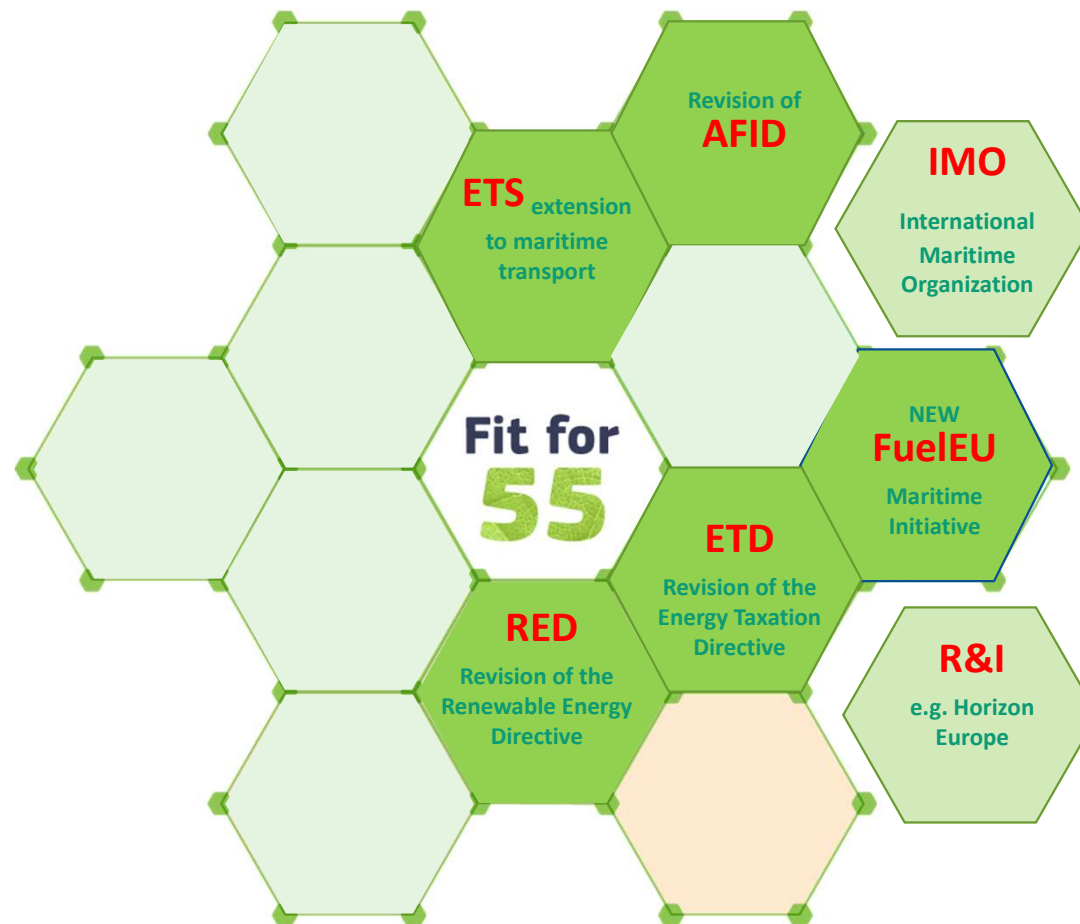
TRANSPORT



TAXATION AND TRADE



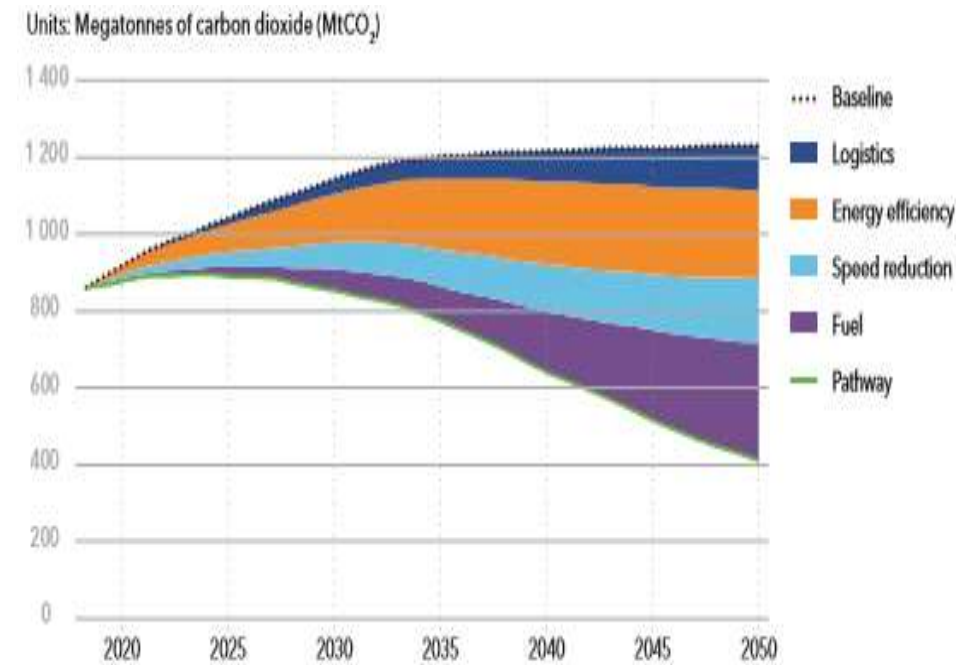
Initiatives that concern **waterborne transport** (“basket of measures”)



MARITIME

Key objectives


- Ensure maritime transport **contributes** to EU climate efforts and to the **Paris Agreement commitments** → **reduce maritime emissions by around 90%**
- Abating maritime emissions requires:
 - Improving energy efficiency → **using less fuel**
 - Using renewable and low carbon fuels → **using cleaner fuels**
- A **‘basket of measures’** to address various obstacles
- **Coordination** at global level



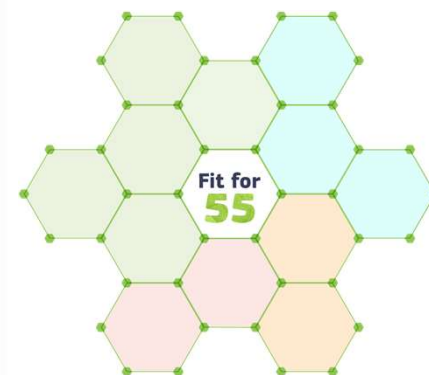
DNV-GL (2019) | Maritime
Forecast to 2050

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 *fuel demand* – 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



FuelEU Maritime Regulation

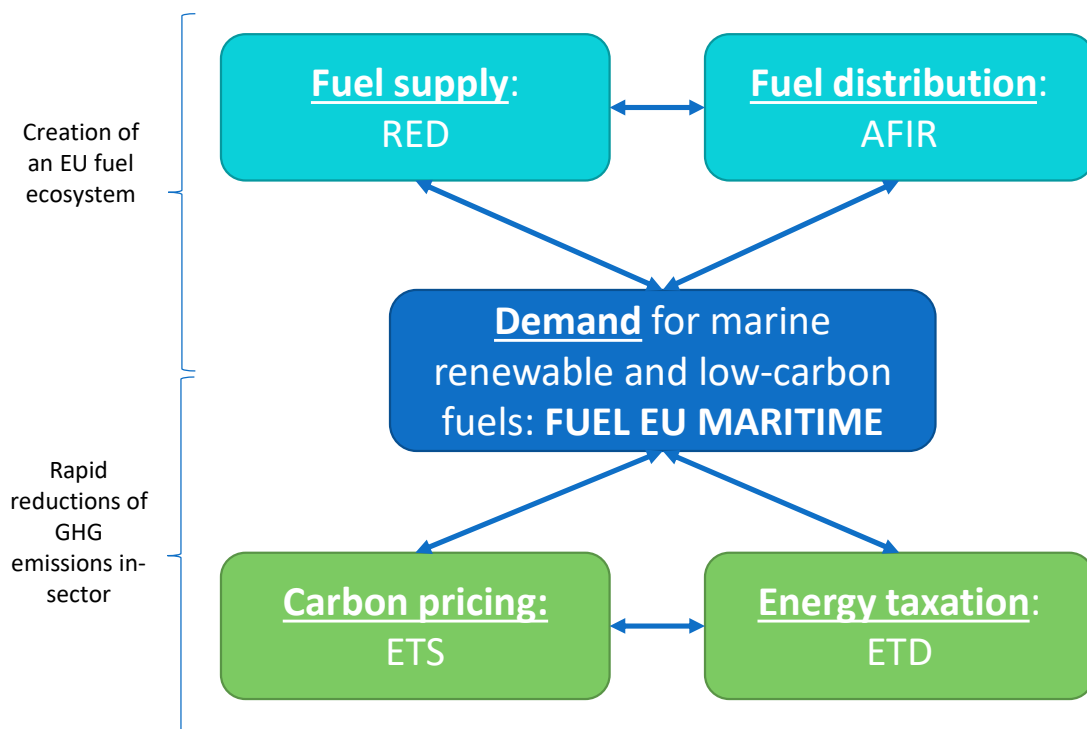


European
Commission | Mobility and Transport

Goals

- **Complement ETS** by specifically addressing the technology issue related to fuels, which may not be sufficiently incentivised by the ETS price signals in the short-medium term
- Provide **regulatory predictability**
- EU supports **global measures** at IMO, where discussions are ongoing:
 - The **EU submission to IMO on a low GHG fuel standard** reflects the Fuel EU 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

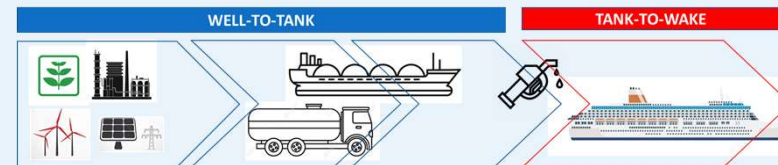


- **Complementary with ETS:** ETS promotes energy savings while FuelEU addresses **fuel technology**.
- **Complementary with RED and AFIR:** FuelEU addresses fuel demand, RED fuel supply and AFIR fuel distribution
- **Complementarity with ETD:** taxation levels for renewable and low-carbon fuels and 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
 - Technology-neutral approach**: maritime operators will need to use an increasing proportion of zero and low carbon sustainable fuels, without obligation to use a specific technology
 - Establishes** limits on the yearly average GHG intensity of the energy used on-board (**CO_{2eq}/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 alternative zero-emission technologies) - 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

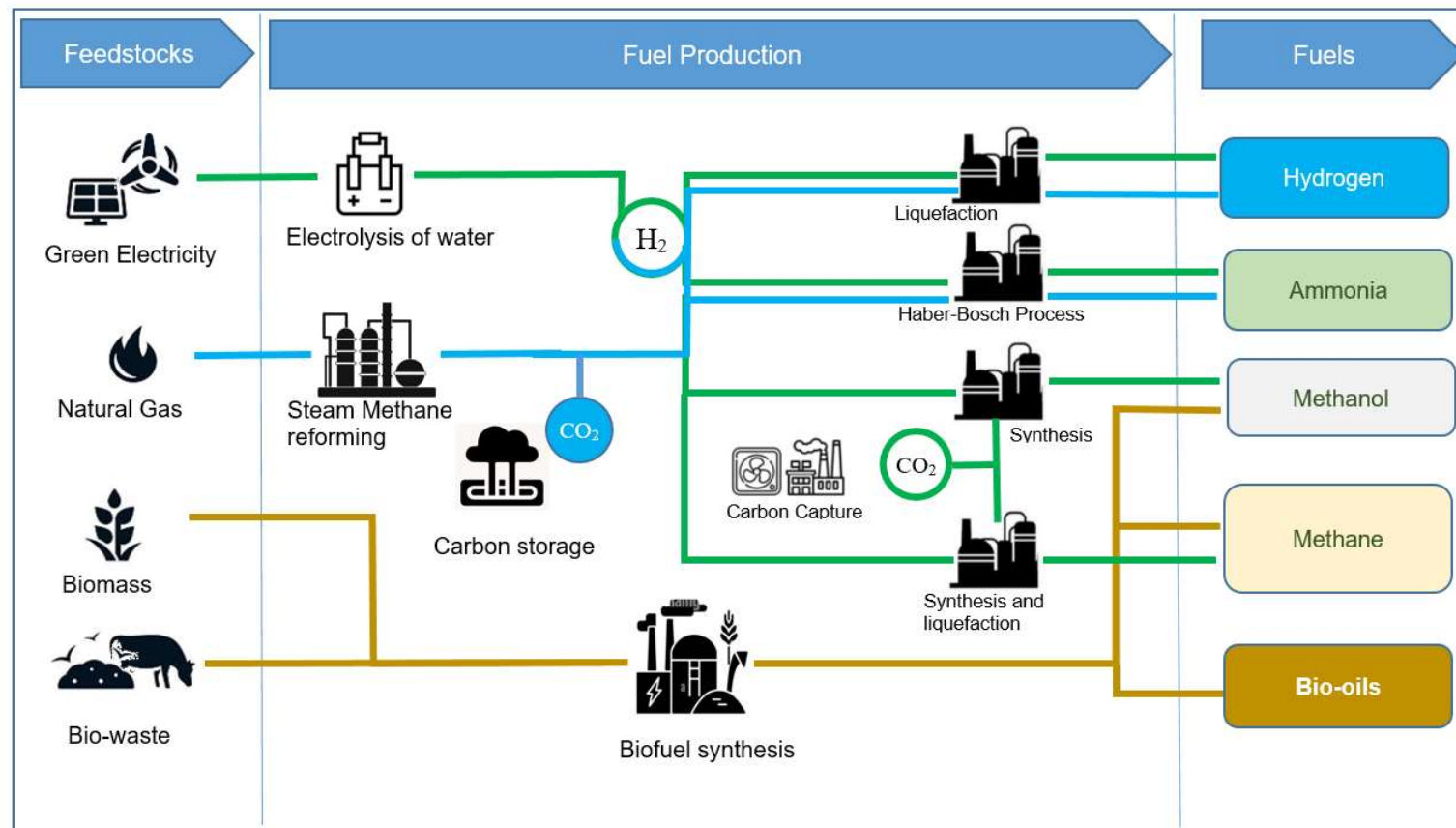


$$GHGe [gCO_{2eq}] = (WtT (fuel, electricity) + TtW (combustion, slip))$$

- 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 most advanced options
- Non-compliance** – deterrent financial penalty
- Monitoring and Reporting is based on **MRV approach**, with some additional data (e.g. calculation of Compliance Balance)

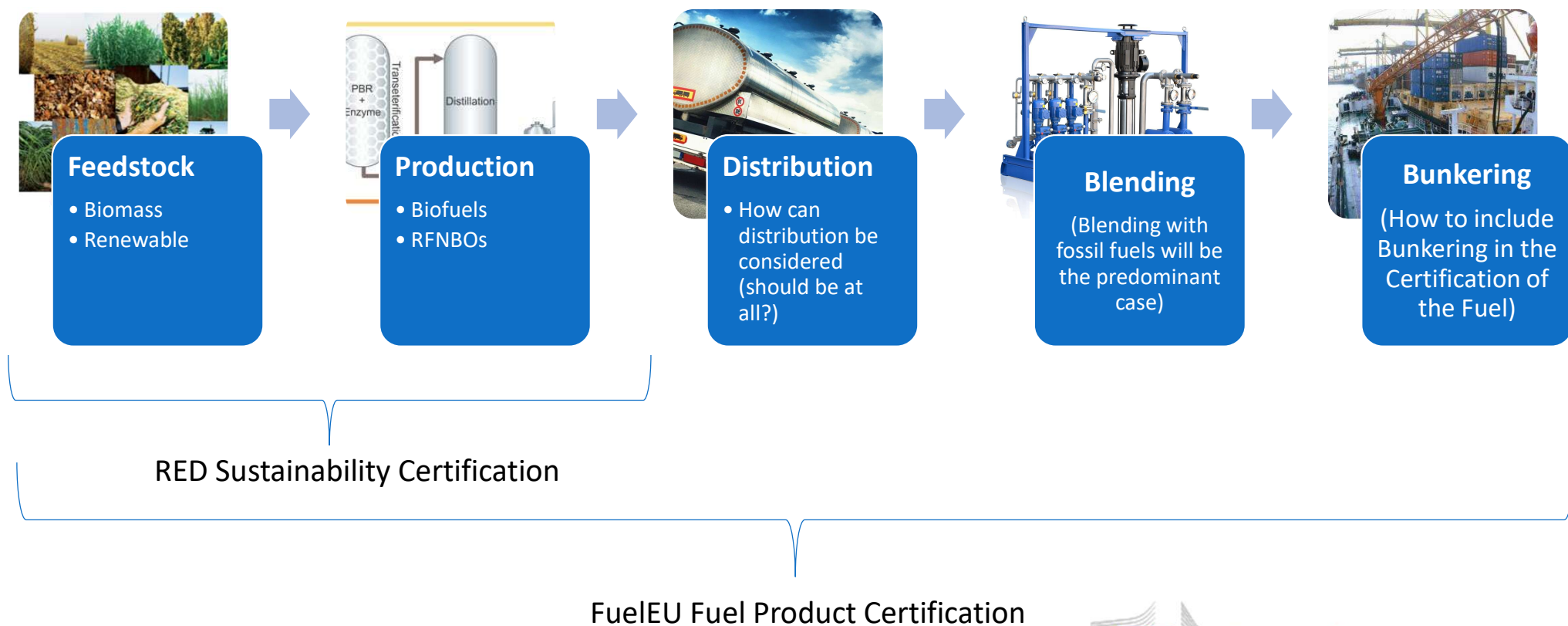
Technology Neutral Approach

Why we need it?

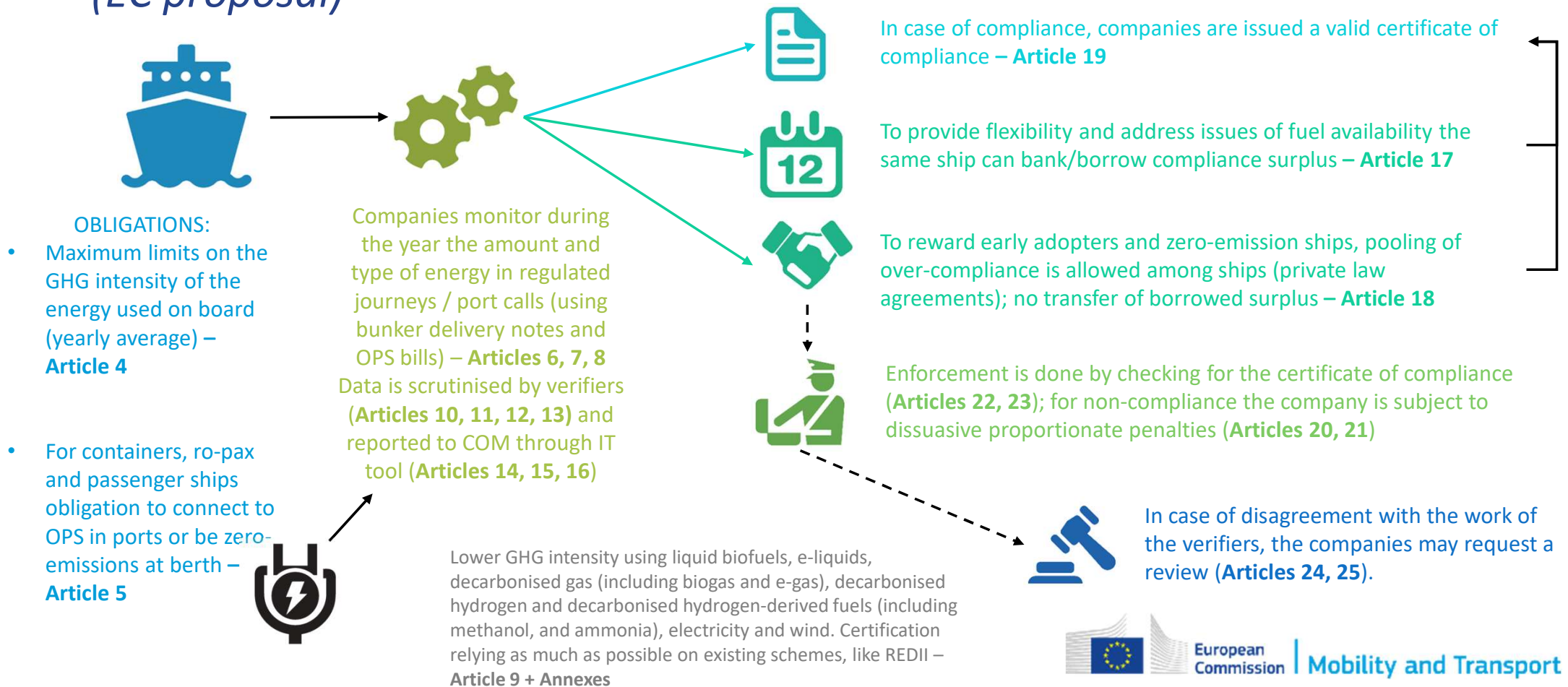


Perspective/Looking ahead on Fuel Certification for Shipping

Several Challenges to address



How would FuelEU work? (EC proposal)

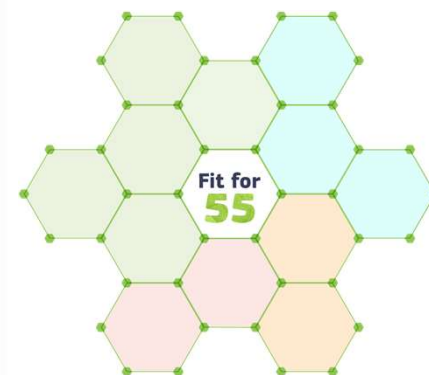


State of Play

- Council General Approach – **2 June 2022**
- Voting in the EP
 - TRAN Committee Adopted Compromise – **3 October 2022**
 - EP Plenary Vote - **19 October**
- Trilogues between the three institutions should start in **24 October 2022**
- Fully applicable – **1/1/ 2025**
- Link to proposal and accompanying documents:
https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12312-CO2-emissions-from-shipping-encouraging-the-use-of-low-carbon-fuels_en



AFIR – infrastructure RED II - fuel supply



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Alternative Fuels Infrastructure Regulation - AFIR

- Sets the criteria and availability targets for the infrastructure of alternative fuels
- Major TEN-T ports – obligation to provide OPS connections
- All TEN-T ports – provide LNG bunkering

Renewable Energy Directive - RED III

- **Targets:**
 - EU level for renewable energy – 40% by 2030
 - Reduction of greenhouse gas intensity of transport fuels - 13% by 2030
 - Subtarget for RFNBOs – 2.6%
 - Tightens criteria for bioenergy



Integrating and supporting



European
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- A R&D partnership in the framework of **Horizon Europe Programme**
- Objective: to provide and demonstrate **zero-emission solutions** for all main ship types and services before 2030
- Research call topics are announced annually by the European Commission
- Projects are evaluated and selected projects get EU co- funding



STRATEGIC RESEARCH
AND INNOVATION AGENDA
FOR THE PARTNERSHIP ON
**ZERO-EMISSION
WATERBORNE
TRANSPORT**



RENEWABLE AND LOW-CARBON FUELS VALUE CHAIN ALLIANCE

SUSTAINABLE & SMART
MOBILITY STRATEGY

General Objectives

- IMPROVE **AVAILABILITY** AND **AFFORDABILITY** OF RENEWABLE AND LOW-CARBON **DROP-IN** FUELS FOR **AVIATION** AND **WATERBORNE** TRANSPORT
- RAPIDLY **BOOST** PRODUCTION, STORAGE AND DISTRIBUTION CAPACITY **WITHOUT COMPROMISING** ACCESS OF OTHER TRANSPORT SECTORS



Specific Objectives

- ✓ IDENTIFY PRODUCTION PATHWAYS OF FOCUS
- ✓ IDENTIFY **STRONG** AND **WEAK** POINTS IN THE VALUE CHAINS
- ✓ **MAP** AVAILABLE FUNDING OPPORTUNITIES and GATHERING ARGUMENTS FOR ADDITIONAL SUPPORT MECHANISMS
- ✓ LAUNCH A **BUSINESS INVESTMENT PLATFORM**
- ✓ Building synergies with across all transport modes and other alliances



GOVERNANCE

- **GENERAL ASSEMBLY**
TWO CHAMBERS (AVIATION + WATERBORNE)
- **THEMATIC ROUNDTABLES**
- **SECRETARIAT**
- **STEERING GROUP**
INCLUDING THE COMMISSION



OPENESS

Alliance will be open to:

- **any company** (regardless of ownership or location)
- EU Member States
- All stakeholder groups registered in the transparency register

Thank you for your attention!



ETS - Inclusion of maritime sector

- **Same key principle as the other ETS sectors** – shipping companies will have to monitor their emissions and purchase and surrender ETS emission allowances for each tonne of reported CO₂ emissions.
- **Cap** – derived from 2018-2019 data and adjusted every year with a linear reduction factor of 4,2%.
- A **phase-in period** of allowance surrendering to ensure a smooth transition
 - 20 % of verified emissions reported for 2023
 - 45 % of verified emissions reported for 2024
 - 70 % of verified emissions reported for 2025
 - 100 % of verified emissions reported for 2026 and after

Approach

- **Covered ships:** only ships above 5000 gross tonnage regardless of the flag they fly
- **Emissions coverage:** around 2/3 of emissions related to EU maritime transport
 - all emissions from voyages within the EU (intra-EU)
 - 50% of the emissions from voyages starting or ending outside of the EU (extra-EU)
 - all emissions when ships are at berth in EU ports
- A scope consistent with **Common But Differentiated Responsibilities** (recital 17)
- **Monitoring, Reporting and Verification rules:** built on the EU maritime transport MRV
- **Greenhouse gases covered by Regulation (EU) 2015/757**
- **Review clause** to take account of relevant developments at **IMO**