

The EU Plan for Green Transition: RED II Implementation, Fit for 55 and an Outlook on the RED III

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Agenda

REDII implementation (SoP)

The EU Climate Agenda (Fit for 55)

Crucial legislation

Expected impact on markets

Wrap-up & Questions

Summary: what the RED II prescribes on RES-T

RED II (Directive 2018/2001)	
Energy from Renewable Sources	At least 32 % (at EU level)
Renewables in the Transport Sector	At least 14% obligation for fuel suppliers until 2030
Blending Obligation for Low-Emission and Renewable Fuel	To translate the 14%, obligation can be in energy, volume or by GHG reduction
Cap on Food/ Feed Crop Based Biofuels	<ul style="list-style-type: none"> • 2020 consumption level for each MS within a 7% limit, with 1% flexibility • MS may reduce the 7% to zero
Target for Annex IX Part A (advanced)	<ul style="list-style-type: none"> • 0.2 % (2022), 1 % (2025), 3.5 % (2030) • may be counted twice to achieve this target
Limit for Annex IX Part B (UCO, animal fat)	<ul style="list-style-type: none"> • Limit of 1.7%, which can be modified by MS if approved by Commission • may be counted twice to achieve the 14%
GHG emission saving thresholds	<ul style="list-style-type: none"> • 50% for old installations • 60% for new installations after 5 October 2015 • 65% for installations starting operation after 1 January 2021 • 70% for renewable fuels from non-biolog. origin after 1 January 2021
Fossil fuel comparator	94 gCO _{2eq} /MJ instead of 83.8 gCO _{2eq} /MJ

RED II Implementation

Member State level

- Transposition at national level was required by **30 June 2021**
- To date majority of MS have fully transposed the REDII but all were too late

Implication for industry

- Law requires that every batch of biofuel is REDII compliant and certified accordingly as per 1 July 2021
- Only recently, also too late, Voluntary Schemes received an official license to operate according to REDII

RED II Implementation (2)

Commission Level

Several important implementation rules still to be proposed and adopted.

Adopted:

- Delegated Act on high ILUC risk biofuels.

Ready but not yet published:

- Implementation rules on Voluntary Schemes

In consultation:

- DA on GHG methodology on RFNBOs and RCF

Still to be proposed:

- DA on co-processing (in refineries) with biofuels - **no progress**
- Research on low ILUC risk biofuels - **still ongoing**
- EU database on transparency and traceability of renewable fuels – **still not ready**.
- Review on feedstock list of Annex IX - research ongoing almost concluded. **Draft report has leaked**. Unclear if Commission will propose changes to the Annex.

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The European Green Deal Fit for 55

Goal: the EU to be climate neutral in 2050

Reaching this target will require action by all sectors of the EU economy, including transport (- 90% GHG emission reduction)

The legal framework for the 2050 goal is the EU Climate Law

Intermediate target agreed by Member States:

- **Reduce emissions by at least 55% by 2030 compared to 1990 levels. The so-called 'Fit for 55' package should deliver the target.**

The FF55 package: relevant proposals for biofuels - all interrelated

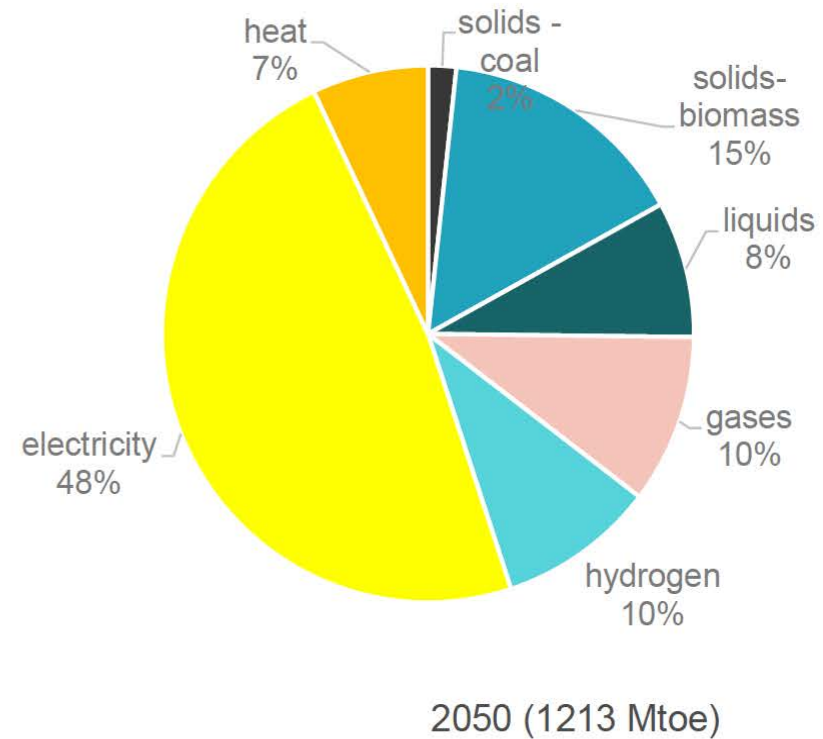
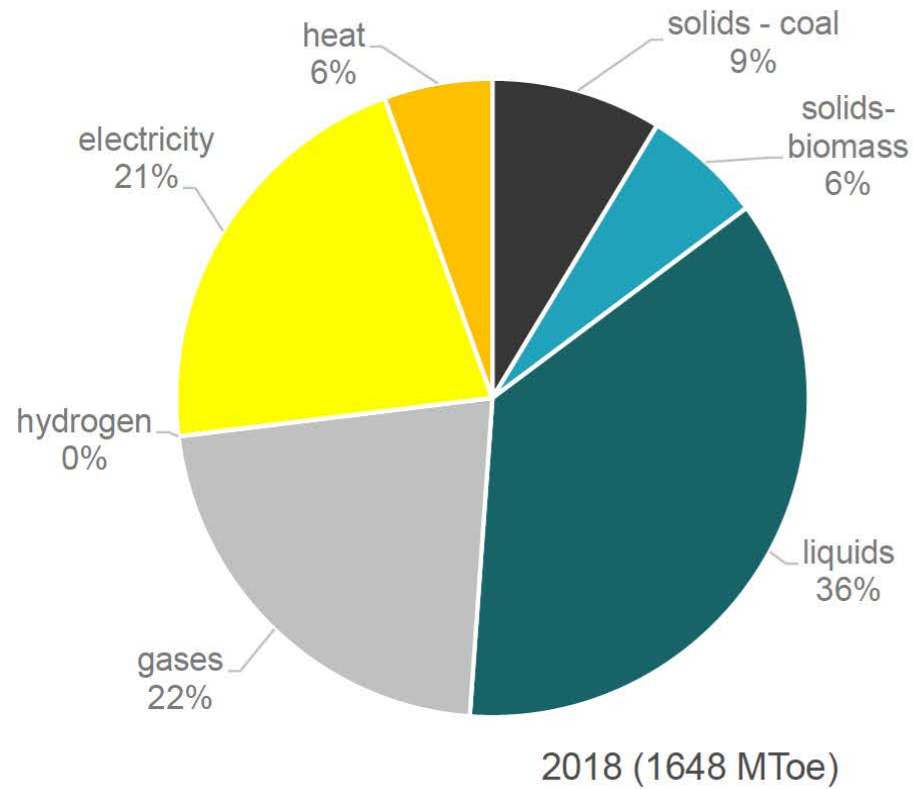


Vast package of legislation: over 3500 pages text

Complex and detailed

Coherence is questioned even by Member States

Projected changes to the energy mix



Source: Based on EU28 Eurostat/LTS 1.5LIFE/TECH scenarios



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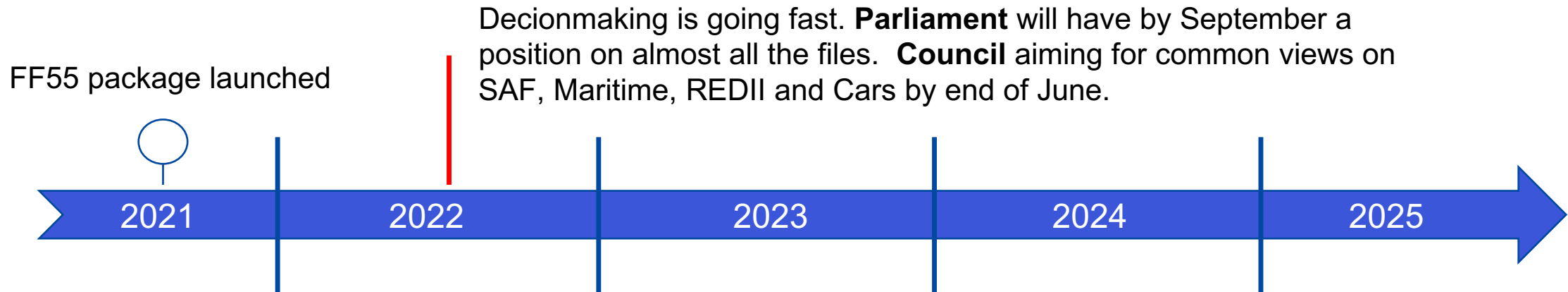
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The FF55 package: revising existing legislation adding new legislation

	Directives	Regulations
Revision of existing legislation	<p>Renewable Energy -RED Energy Efficiency - EED Energy Taxation – ETD Emission Trading Scheme - ETS</p>	<p>Cars CO₂ standard Land use, Land-use change and Forestry – LULUCF Effort Sharing - ESF Alternative Fuels Infrastructure - AFIR</p>
New EU legislation		<p>Carbon Border Adjustment Mechanism - CBAM FuelEU Maritime RefuelEU Aviation Social Climate Fund - SCF</p>
	Require transposition by Member States – will take at least 2 years	Direct enforceable and binding; no transposition required

SoP on decisionmaking and time-line



- Parliament is divided on many issues which will weaken its negotiating position
- Council is tweaking Commission proposals, no major changes expected
- If this speed is maintained, we may expect new legislation adopted by mid 2023 most in line with Commission proposals
- Amended Directives applicable from 2025 onwards (until at least 2030), provided MS have transposed in time (which is unlikely); Regulations immediately applicable.

Revision of the RED – What is proposed? (Highlights only)



Overall Renewable Energy Share ambition:
40%



An obligation on fuels suppliers that renewables in transport lead to a **GHG intensity reduction** of at least **13%** by 2030, following an indicative trajectory



Crop based biofuels:
2020 share of **transport energy** plus 1%, within a 7% limit



No more multipliers except a multiplier of 1.2 only in aviation and maritime and only for Annex IX A biofuel + Renewable Fuels of non-Biological Origin (RFNBO)



Annex IX A: Binding sub-target for advanced biofuels fixed at 0.2 % in 2022, 0.5% in 2025, 2.2% by 2030
Annex IX B: Limit of 1.7% for Annex IX-B is maintained without derogation

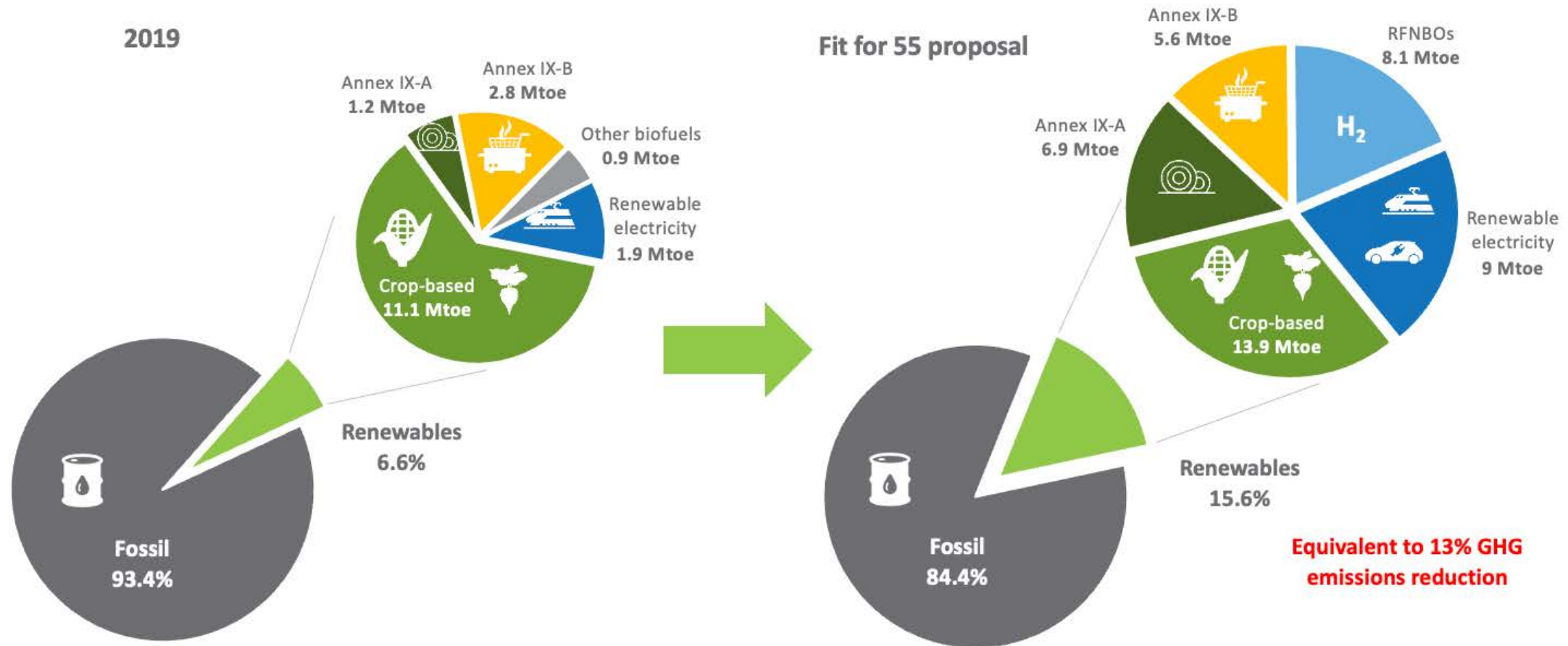


A **mandate** of at least 2.6% of **RFNBOs** by 2030



B7 as standard grade -> moving to B10
Freezes ethanol incorporation at E10

RES-T(transport) in 2030 – Fit for 55 proposal vs. 2019



Source: SHARES 2021 and ePURE calculations. Energy in transport includes all modes except international maritime according to RED I methodology. Energy in transport in 2030: 280 Mtoe; all sub-targets are met and caps are maximised in 2030; quantity of renewable electricity in 2030 in the Fit for 55 proposal is calculated to reach 13% GHG emission reduction in all transport.

CO2 standards for cars/vans – Energy Taxation Directive



- The fleet of newly registered cars, compared to 2021, has to reduce emissions by 55% by 2030 and by 100% by 2035
- For new vans, the reduction targets are 50% and 100%, respectively
- If maintained, it means that the ICE would no longer be allowed to be sold as of 2035
- Unless zero or low emission fuels (like e-fuels and biofuels) would be accepted (EP not in favour, MS possibly)

- Taxation based on energy, no longer volume
- Advanced biofuels and e-fuels have a more favourable tax regime than conventional biofuels

Ambitious goals for aviation and maritime



- A **volumetric mandate** for fuel suppliers and airlines:
- Eligible as SAF (Sustainable Aviation Fuel): Annex IX biofuels, e-fuels, RCF; not food/feed biofuels.
- In 2025 at least 2% SAF
- In 2030 at least: 5% SAF and 0.7% synthetic aviation fuel (e-fuel)
- Five-yearly ramp-up to at least: 63% SAF and 28% e-fuel in 2050



- A **carbon intensity mandate**
- Maximum allowed average GHG intensity of the energy used on-board:
 - -2% in 2025
 - -6% (2030), -13% (2035), -26% (2040), -59% (2045) and -75% (2050)
- All alternative fuels can be used provided sustainability criteria are met

Both are Regulations to avoid too much creativity by MS

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How will the market for biofuels develop up to 2030 ?

- The use of food/feed crop-based biofuels may grow a bit but not much(now around 4.5%).
- Biofuels from waste oils (Annex IXB) is limited in growth potential (capped) but we very likley see strong growth in some Member States due to national targets.
- Advanced biofuels (made from feedstock listed in Annex IXA) will have, in theory, a growing market share.
- Electricity is strongly pushed and will gradually replace liquid and gaseous fuels for passenger transport, but less for HD vehicles, shipping and maritime.
- New substantial fuel markets arising for aviation and maritime.
- E-fuels, such a H2, are the new mantra but are expected, due to costs, to scale up closer to 2030 only
- The war in Ukraine shows that things can change rapidly and unexpectedly

Increased energy prices did not miss its effect on biofuel use

Reducing biofuel blending mandates...

Taxes and prices at the pump as key drivers for blending proportion reductions

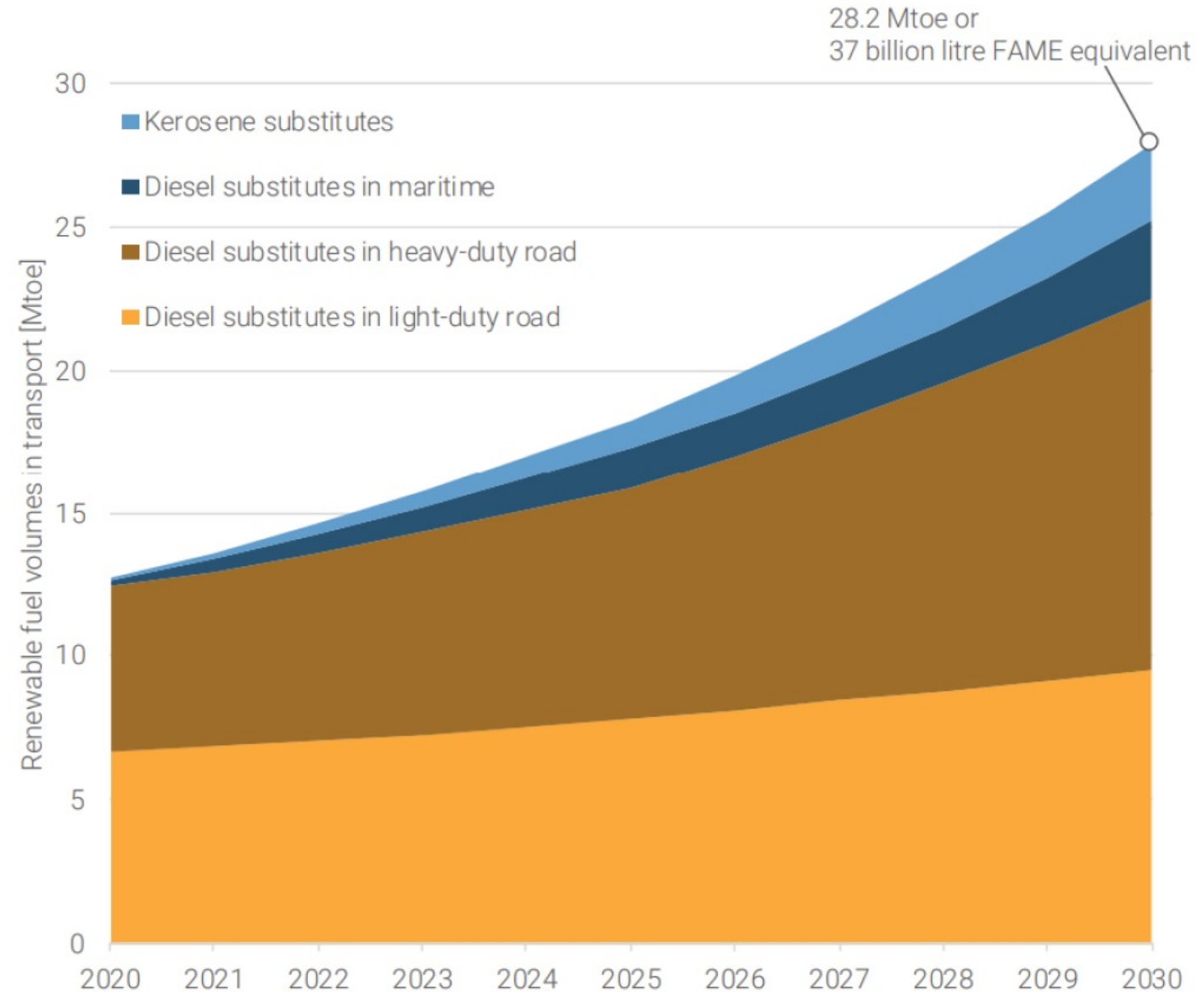
- **Czech Republic**
 - Future blending mandates uncertain
 - Blending mandates to be reduced as of 1 July
- **Croatia**
 - To have withdrawn penalties given to blenders that miss mandate targets
- **Germany***
 - Ministries discuss lower biofuel blends
 - Plans to cut the use of biofuels produced from food and feed crops
- **Finland**
 - A temporary reduction of its 2022 and 2023 biofuel blending obligations by 7.5 percentage points to 12%
- **Latvia**
 - To raise the distribution obligation 2030 target to 34% from 30% to compensate
- **Sweden**
 - A temporary waiver for the biofuel mandates
 - A final decision is due to be taken by 1 July
 - Plans to freeze 2023 GHG saving obligation at 2022 levels
 - 2023 mandate 10.1% from 7.8% in 2022 in petrol

* Ongoing discussions re. a lower biofuel blend in order to free up more crops for food purposes

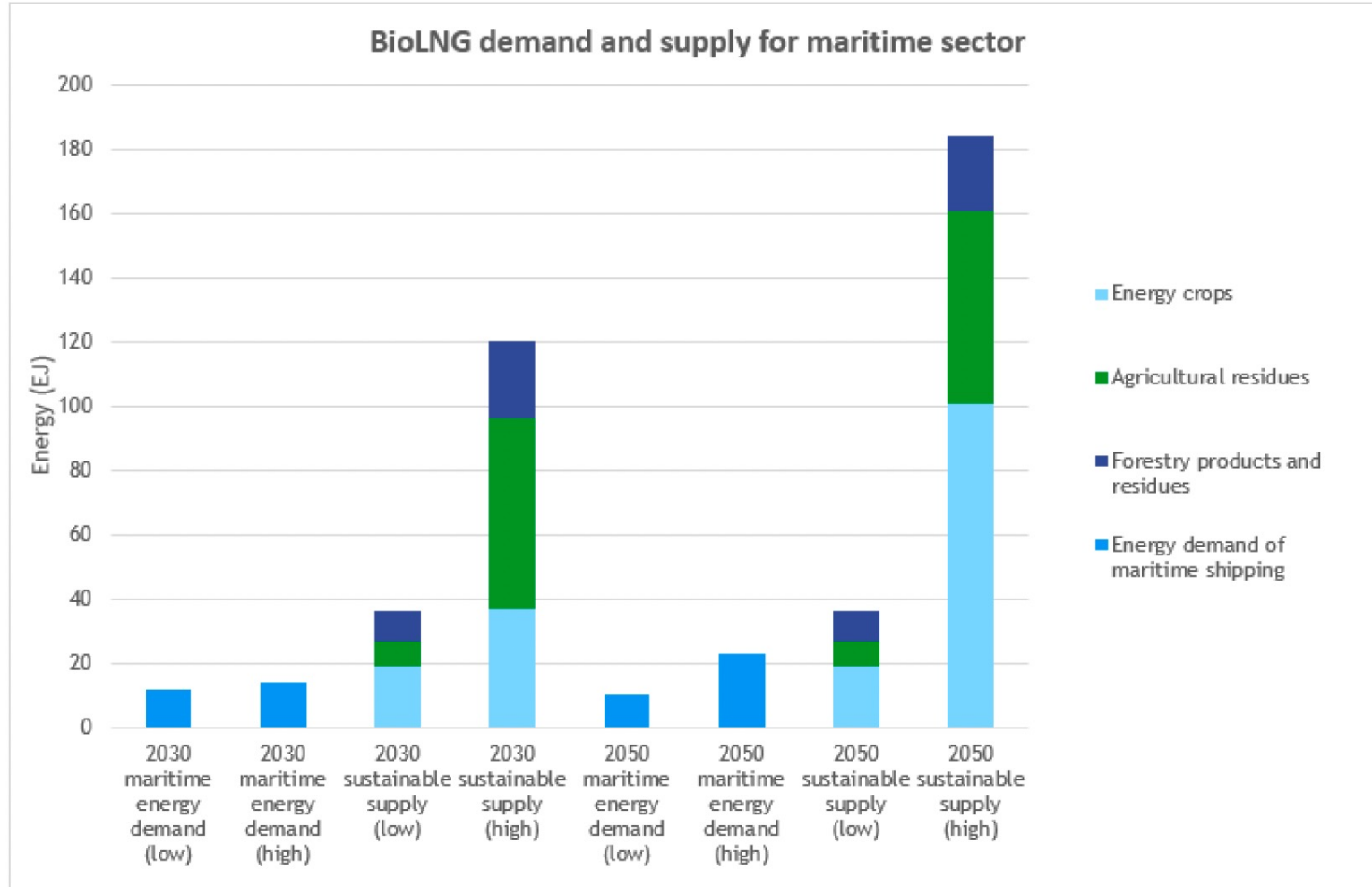
How much renewable diesel fuel could be needed by 2030?

- Demand renewable diesel fuel to double by 2030
- From 13 Mtoe in 2020 to 28 Mtoe in 2030 (17 bn litre in 2020 to 37 bn litre in 2030)
- Road transport represents 80% of future demand for all transport
- Strong growth for renewable fuels in maritime and aviation

Source: Studio Gear Up



Outlook for bioLNG in shipping globally



Source: SEA-LNG

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Wrapping up

- Member States are slow in transposing REDII into national law and so is the Commission in drafting implementation rules; it creates uncertainties for industry.
- The FF55 package is ambitious, legislation complex and not technology-neutral (electricity and green hydrogen are over subsidised); CO₂ standard cars/vans means very likely phasing out ICE by 2035.
- REDII revision is modest in changes, also in ambition, but devil, as per usual in the detail.
- New markets for aviation and maritime creating opportunities for Annex IX biofuels; food/feed biofuels will see limited market growth but opportunities for other crops (cover / intermediairy / energy crops).

Questions?

