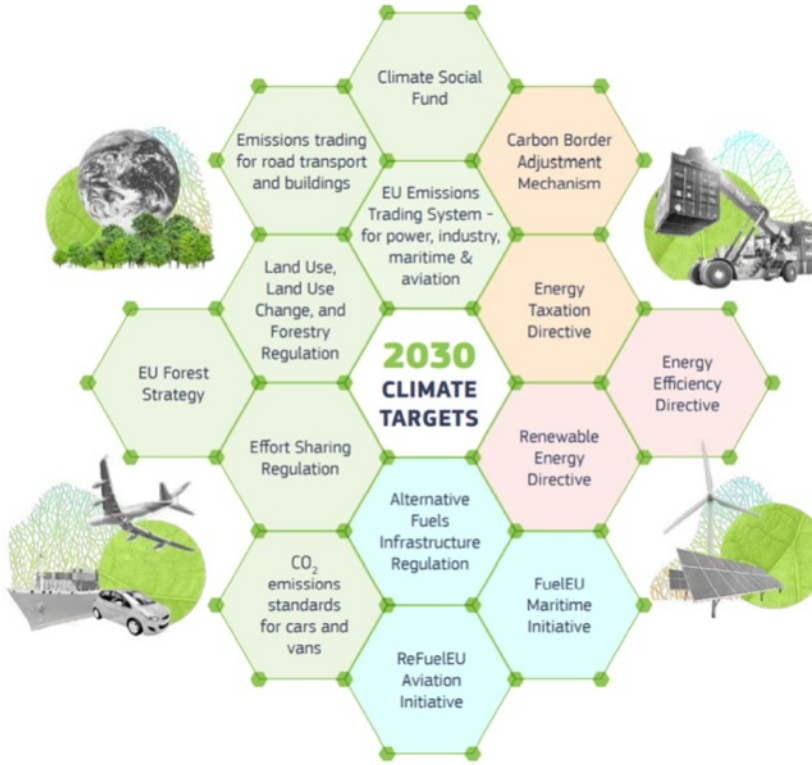


The EU Plan for Green Transition: RED II Implementation, Fit for 55 and an Outlook on the RED III

Rob Vierhout, Independent advisor on EU affairs

(Virtual) Regional Stakeholder Committee North America, on-line, November 16, 2021

ISCC International Sustainability & Carbon Certification

Agenda

Renewable Energy in Transport (SoP)

RED II implementation (SoP)

The Fit for 55 Package

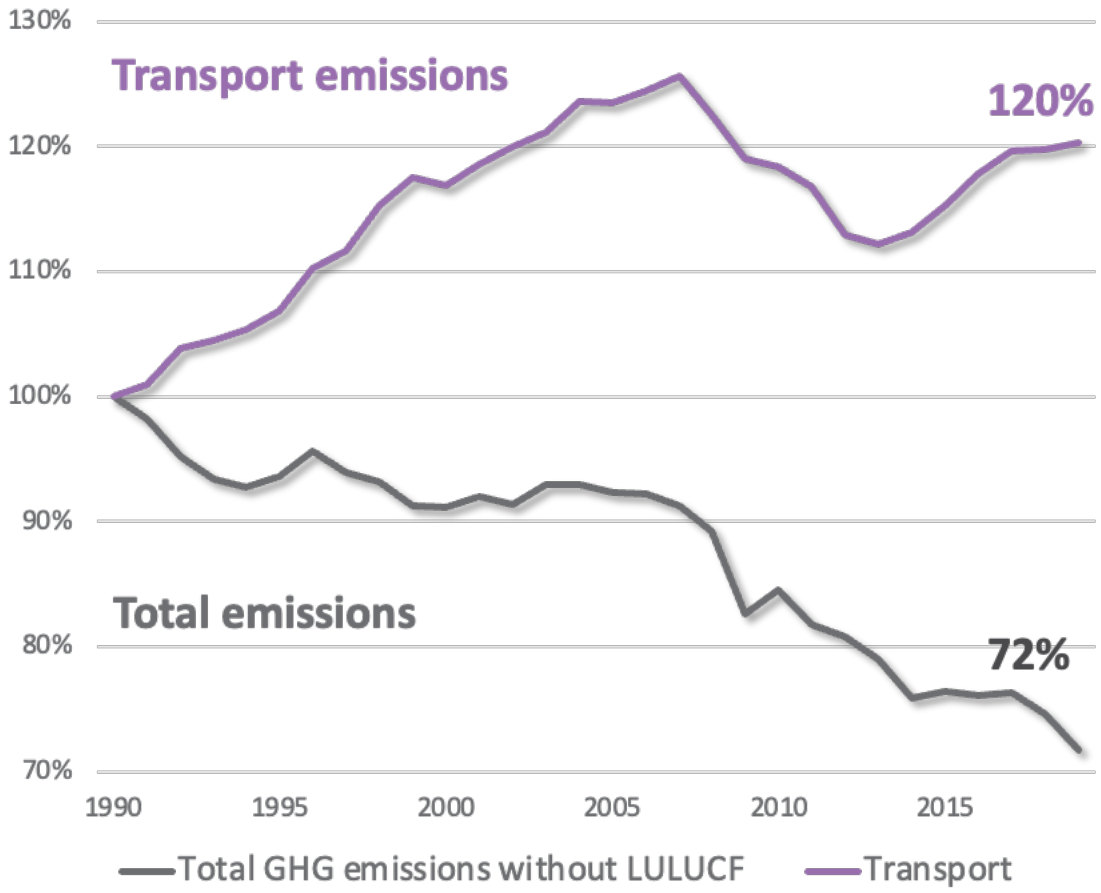
RED III (or better 2.1)

Wrap-up and & Questions

ISCC International Sustainability & Carbon Certification

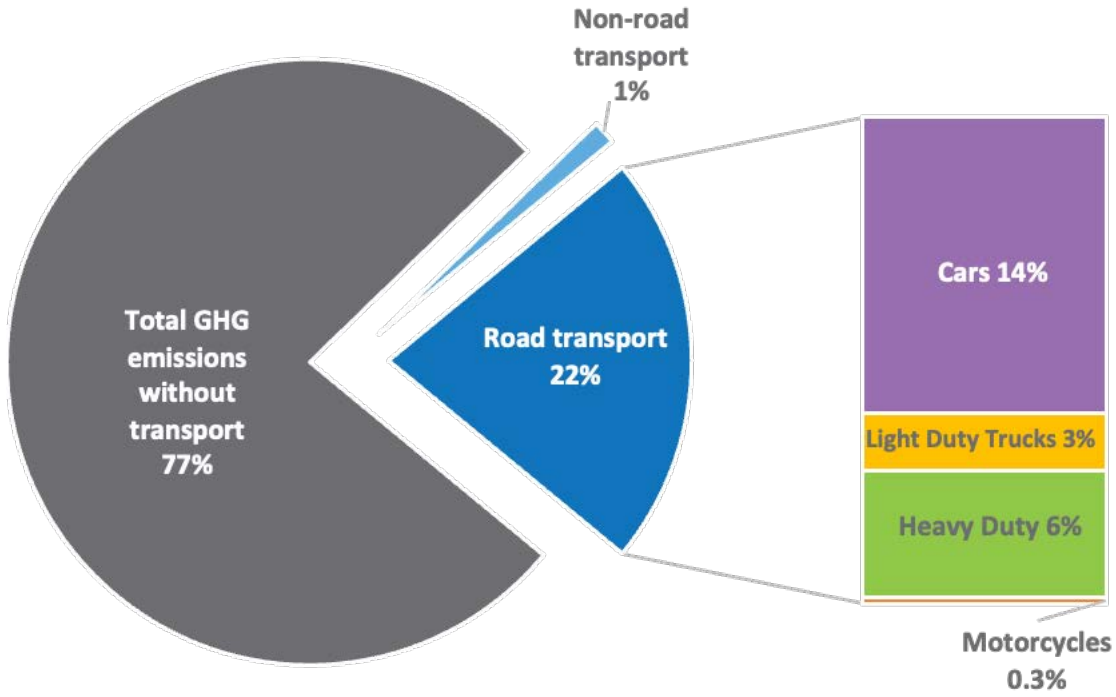
As a reminder: transport emissions in the EU are still high

EU transport emissions on the rise again



Source: UNFCCC, 2021

Road transport emissions are substantial



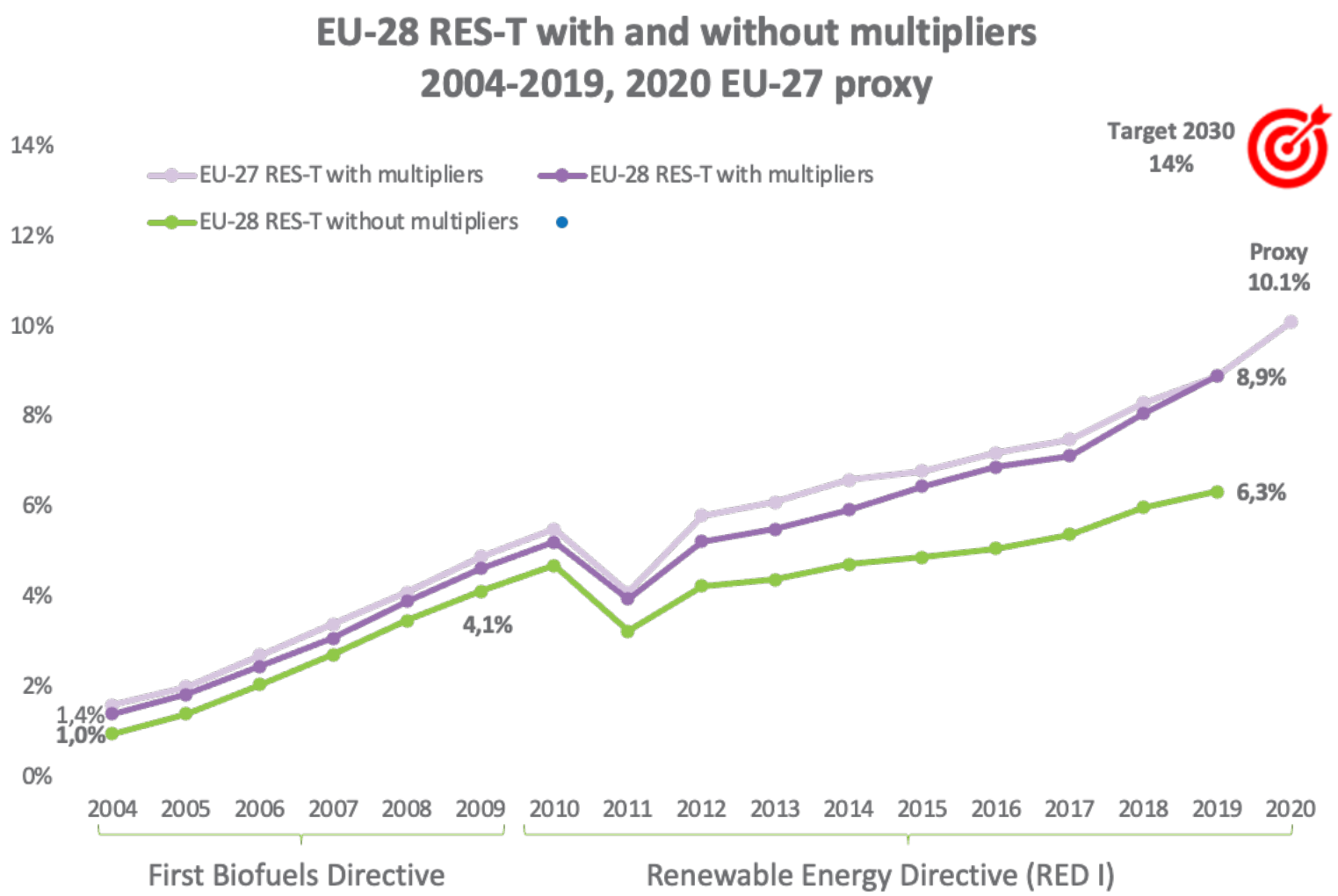
Renewable Energy in Transport (RES-T) per Member State (with multipliers)

- **12 MS have achieved the 2020 targets:** Austria, Belgium, Finland, Hungary, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Sweden, Slovenia
- **2 MS were close to achieving the target:** France and Germany
- **4 MS were under 6%:** Estonia, Greece, Croatia and Lithuania
- **Overall, 10.1% at EU-27 level**

Source: EEA, 2021, courtesy of ePURE

ISCC International Sustainability & Carbon Certification

RES-T: Progress and multipliers impact



RES-T progress:

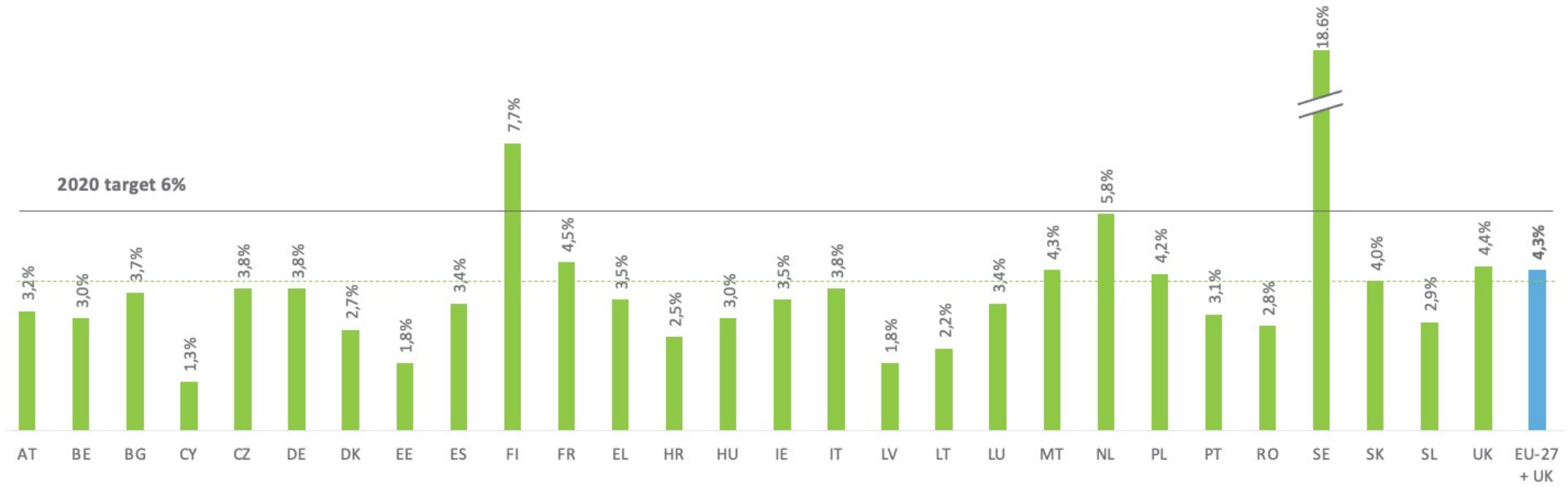
- EU27 2020 proxy: 10.1%
- EU28 2019: 8.9%, but 6.3% in reality

Increase

- **Since 2004 from 1.4% to 8.9%, BUT**
- In 10 years, since RED I was approved, until 2019
  - **Most of the increase has come from virtual quantities created by (artificial) multipliers**
  - **Without multipliers, it has increased by 2.2% only**

Source: EC SHARES, 2021; EEA, 2021, courtesy ePURE

Progress towards FQD Art. 7a target: 2010-2019



- Fuel quality Directive (FQD) targets for fuels:
  - By 2020: to reduce GHG intensity of the fuels by at least 6% vs. 2010 baseline of 94.1 gCO_{2eq}/MJ;
  - 2017 indicative target: 4% vs. 2010.
- Only 2 MS met the 6% reduction target, 4 MS (France, Malta, Poland, Slovakia) and the UK were above the 4% indicative target.
- 21 MS were still below the 4%.

Source: EEA, 2021, courtesy of ePURE

Agenda

- Renewable Energy in Transport (SoP)
- **RED II implementation (SoP)**
- The Fit for 55 Package
- RED III (or better 2.1)
- Wrap-up and & 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	• 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)	• 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)	• 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 threshholds	• 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 no MS has fully transposed the REDII.
- For several MS still unclear what the state of play is. Some have draft law ready for adoption in national Parliament.

Implication for industry

- Law requires that every batch of biofuel is REDII compliant and certified accordingly as per 1 July 2021.
- However, no Voluntary Scheme has yet received an official license to operate according to REDII even though technically all VS are considered compliant.
- Until the end of this year no strict enforcement (by national authorities) expected.

RED II Implementation (2)

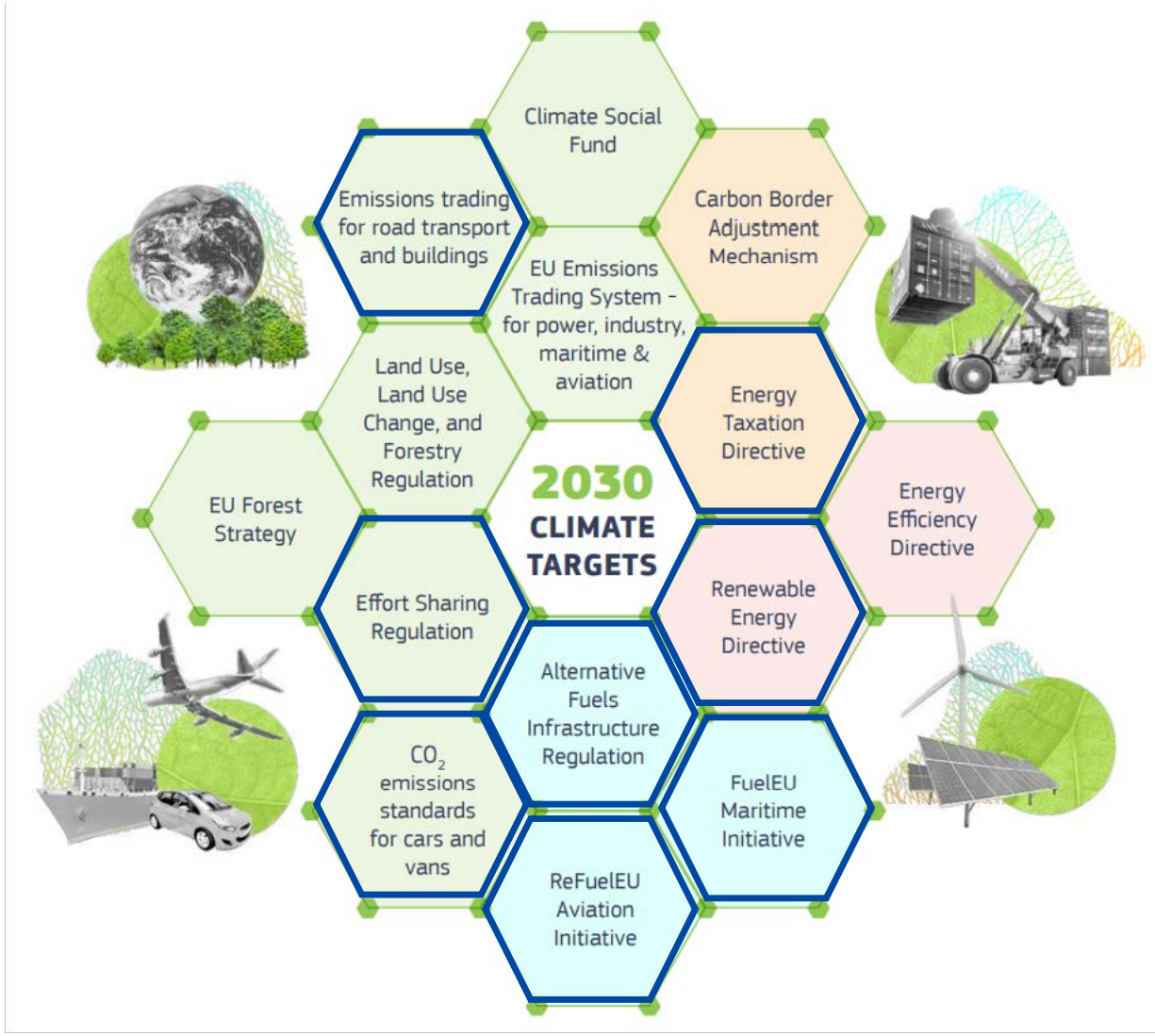
Commission is late too

- Several important implementation rules (Delegated Acts) still to be proposed and adopted. To date only the DA on high ILUC risk biofuels adopted.
- Still in the pipeline crucially important implementation rules:
  - DA on GHG methodology on RFNBOs and RCF - **draft version sent to MS for appraisal**
  - DA on co-processing (in refineries) with biofuels - **no progress**
  - Research on low ILUC risk biofuels - **still ongoing**
  - Implementation rules on Voluntary Schemes + EU database - **Revised draft has leaked, next step discussion by MS; on EU database hardly any progress.**
  - (Possibly) Proposal to change feedstock list of Annex IX - research ongoing but almost concluded. **Draft report has leaked**. Unclear if Commission will propose changes to the Annex.

Agenda

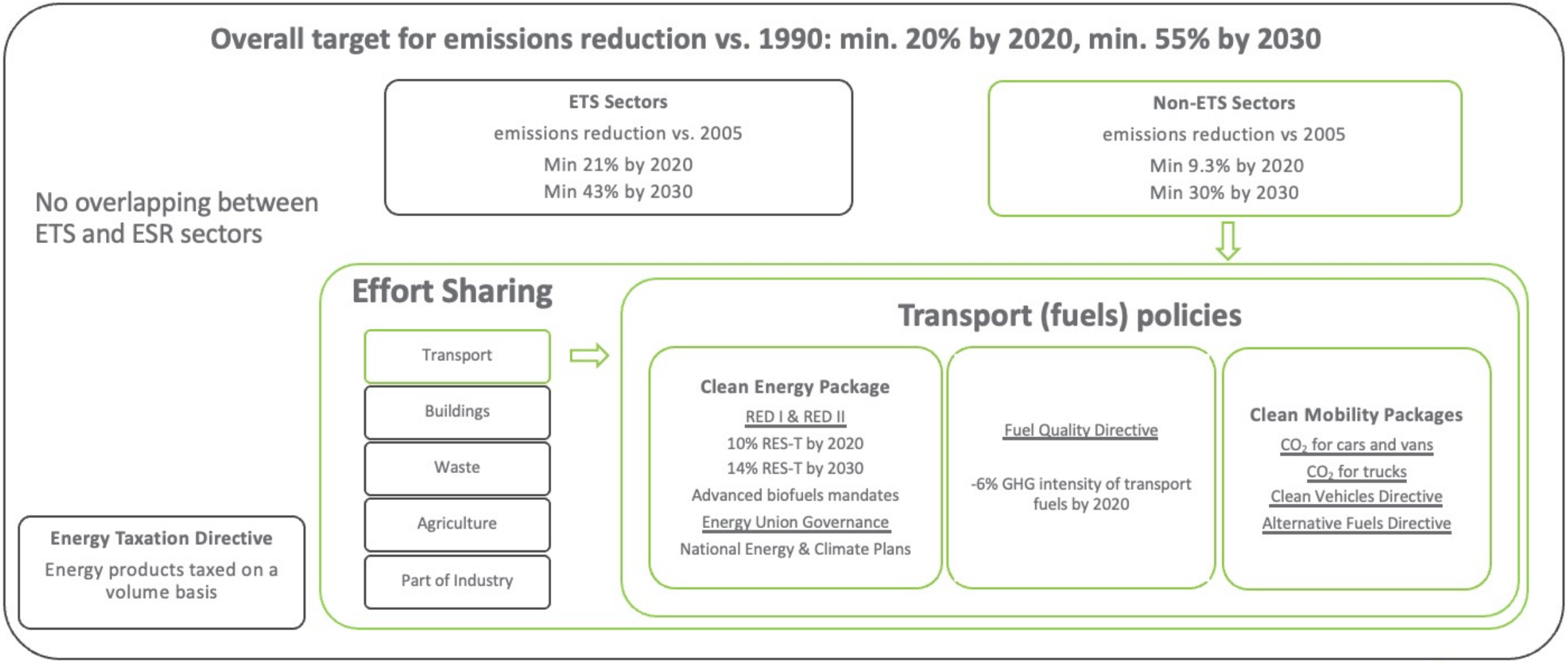
- Renewable Energy in Transport (SoP)
- RED II implementation (SoP)
- **The Fit for 55 Package**
- RED III (or better 2.1)
- Wrap-up and & Questions

The FF55 package: relevant proposals for biofuels - all interrelated



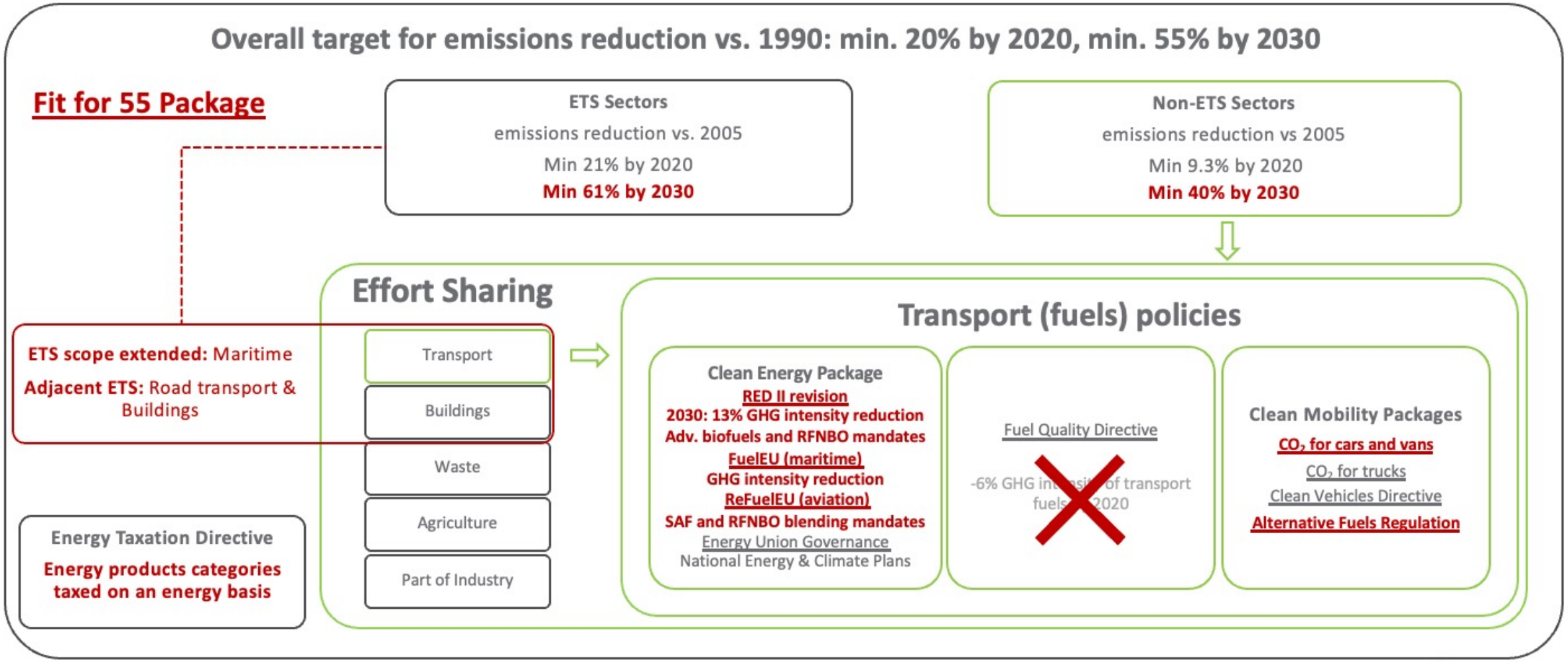
- **Renewable Energy Directive II.1**
- **CO_2 emissions standards for cars and vans**
- **Energy Taxation Directive**
- ETS for road transport & buildings
- Effort Sharing Regulation
- Alternative fuels infrastructure Regulation
- **FuelEU Maritime & ReFuelEU Aviation**

State of EU energy and transport policies – Before Fit for 55



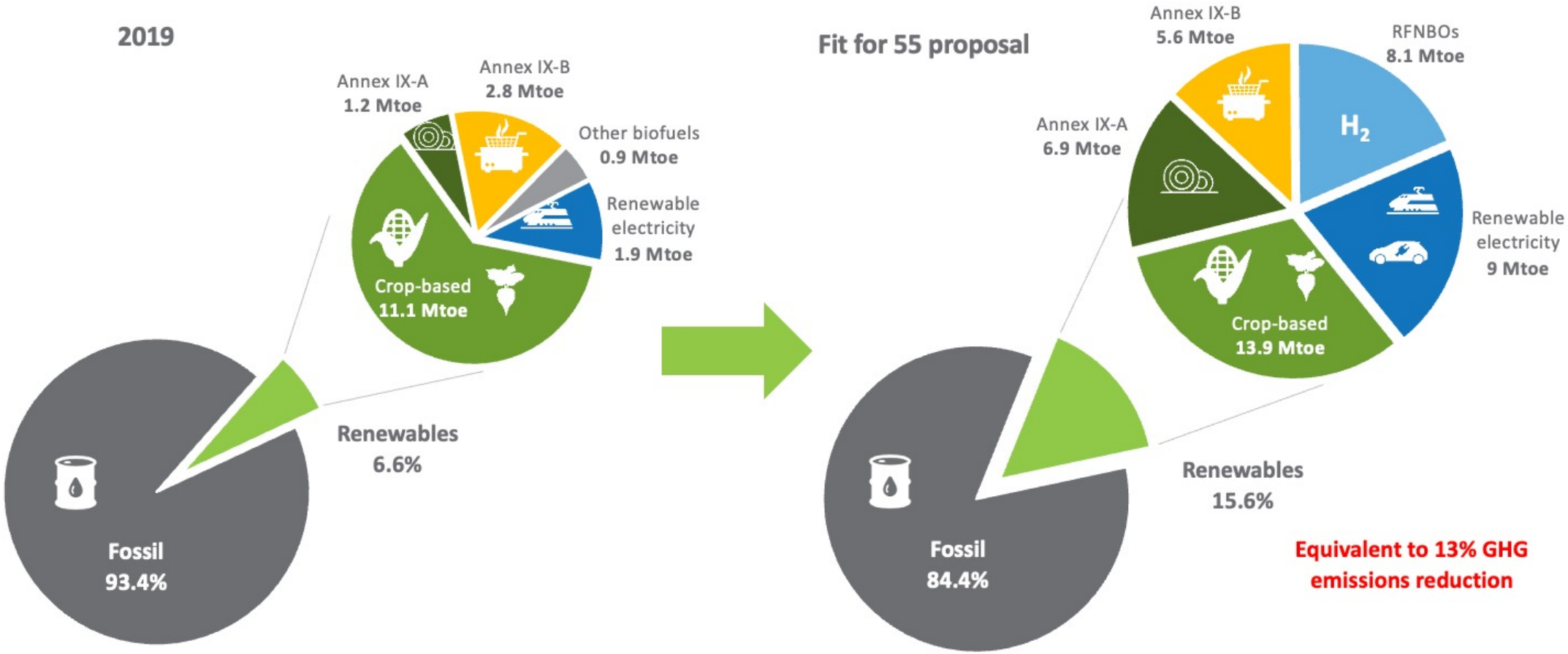
Source: courtesy ePURE

State of EU energy and transport policies – under Fit for 55



Source: courtesy ePURE

RES-T 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

- Taxation based on energy, no longer volume
- Good for ethanol
- 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 airliners:
- In 2025 at least:
  - 2% SAF (only Annex IX biofuels; Conventional biofuels not allowed)
- 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

Agenda

- Renewable Energy in Transport (SoP)
- RED II implementation (SoP)
- The Fit for 55 Package
- **RED III (or better II.1)**
- Wrap-up and & Questions

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

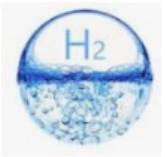
Overall Renewable Energy Share ambition: **40%**

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

ISCC International Sustainability & Carbon Certification

Agenda

- Renewable Energy in Transport (SoP)
- RED II implementation (SoP)
- The Fit for 55 Package
- RED III (or better 2.1)
- **Wrap-up and & Questions**

Some observations

- Emissions from transport stay high and commitment from many MS to increase RES in transport stays relatively low
- The REDII transposition (into national law) and implementation rules are severely delayed which creates problems for industry
- The FF55 package is ambitious, interrelated, very complex and not technology neutral (electricity and green hydrogen are the new mantra); CO_2 standard cars/vans means phasing out ICE
- New markets arising for aviation and maritime
- REDII revision is modest in changes, also in ambition, but devil, as per usual in the detail

Questions?

Follow us on