



EU ethanol market and policy perspectives

ePURE: Voice of the EU ethanol industry

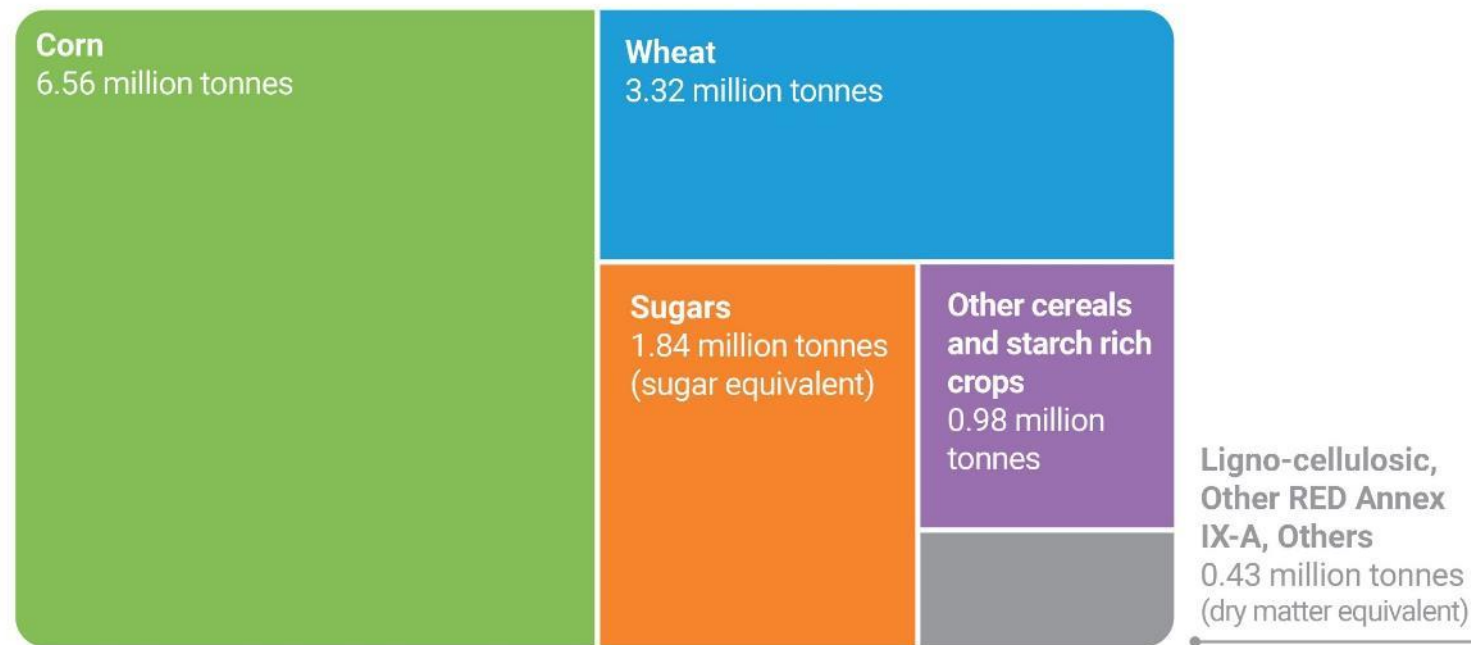


- 35 members, including 19 producing companies
- 50 plants across 16 EU countries
- 85% of EU renewable ethanol production

European ethanol sustainability credentials

ePURE ethanol: Made in/from Europe

Feedstock used to produce renewable ethanol

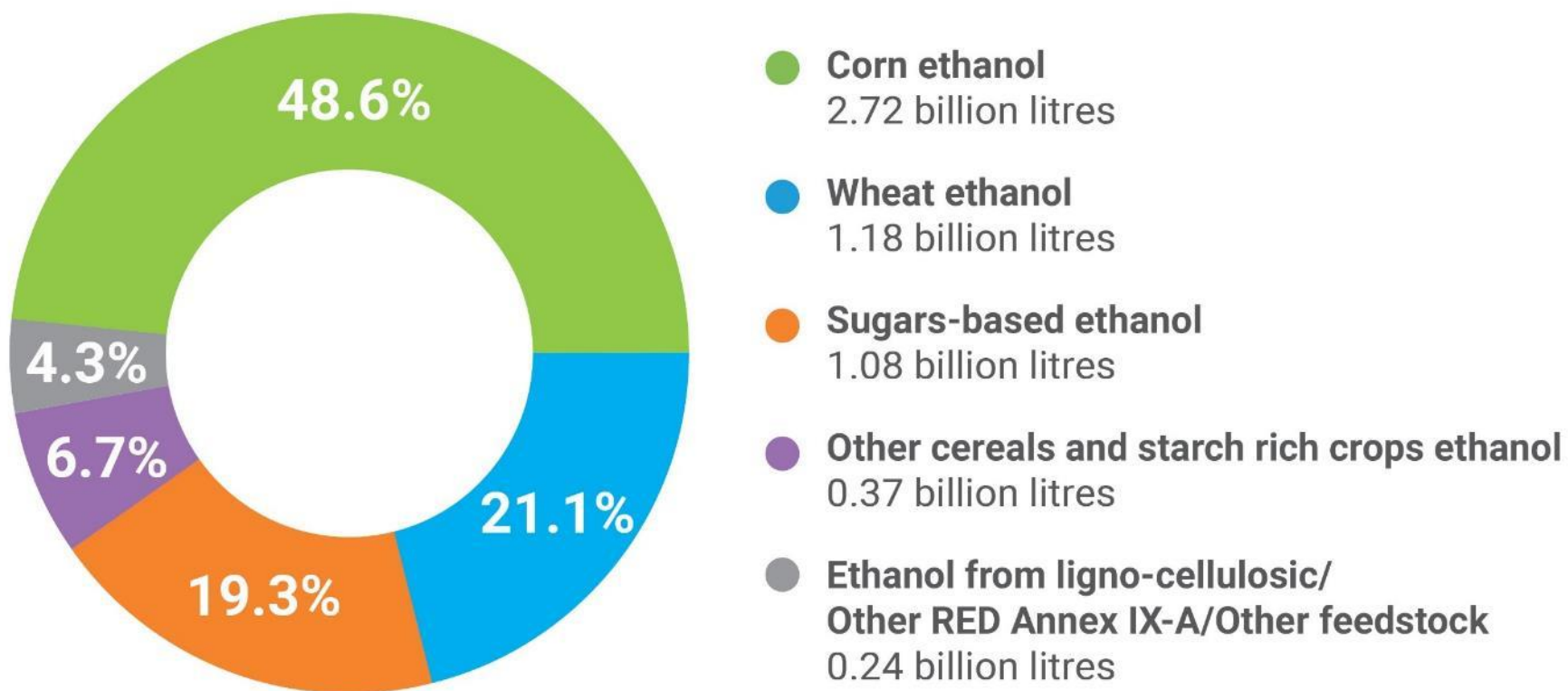


More than 99% of all feedstock used to produce renewable ethanol by ePURE members was grown in Europe

Source: Aggregated and audited data of ePURE members for 2019, 2020

ePURE ethanol: European feedstock

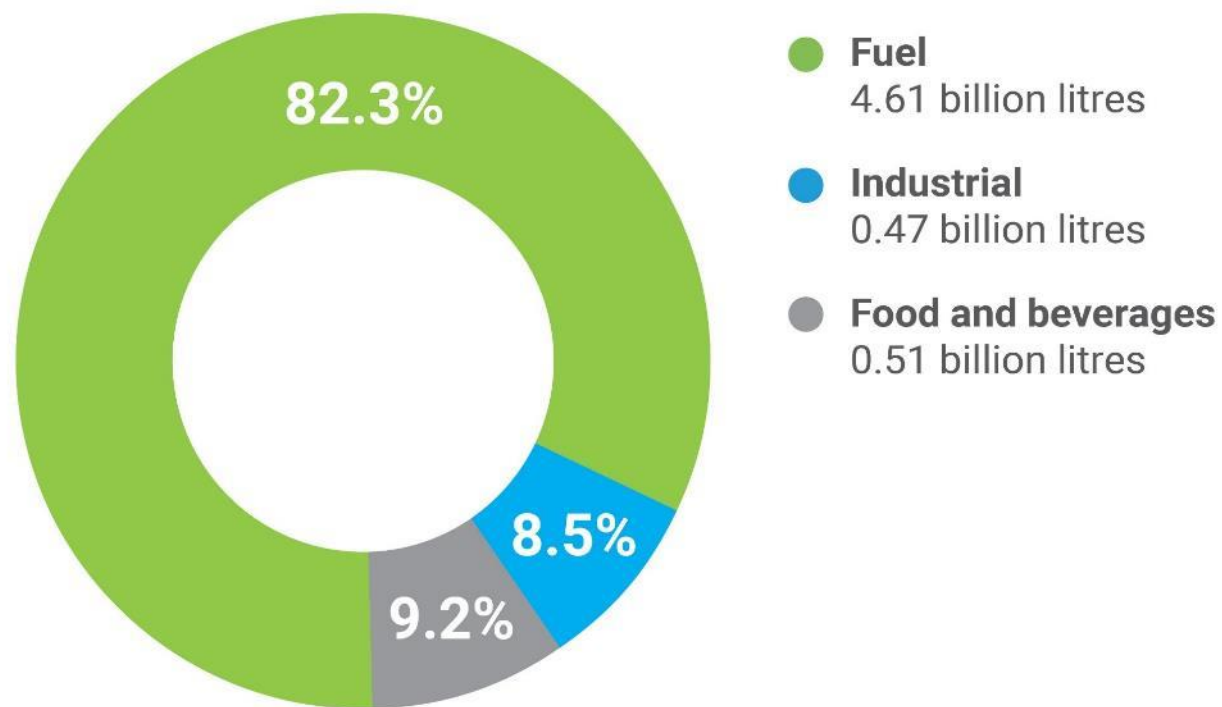
Share of European renewable ethanol
produced from each feedstock type



Source: Aggregated and audited data of ePURE members for 2019, 2020 (pure alcohol)

ePURE ethanol: More than just fuel

Renewable ethanol production by end-use

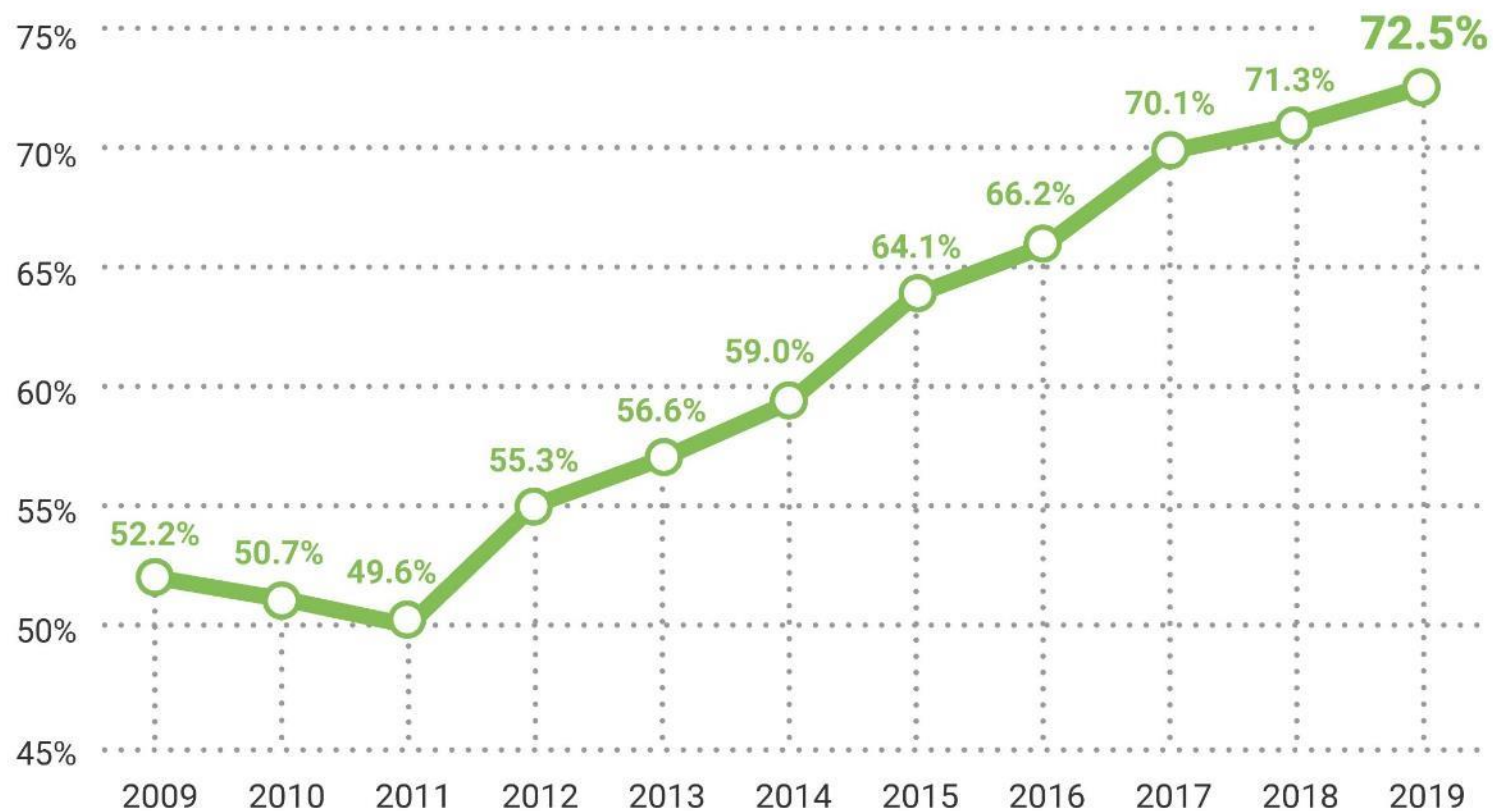


In 2019, ePURE members produced 5.6 billion litres of ethanol, operating at 87% of their 6.45 billion litres of installed capacity

Source: Aggregated and audited data of ePURE members for 2019, 2020 (pure alcohol)

ePURE ethanol: GHG emission savings

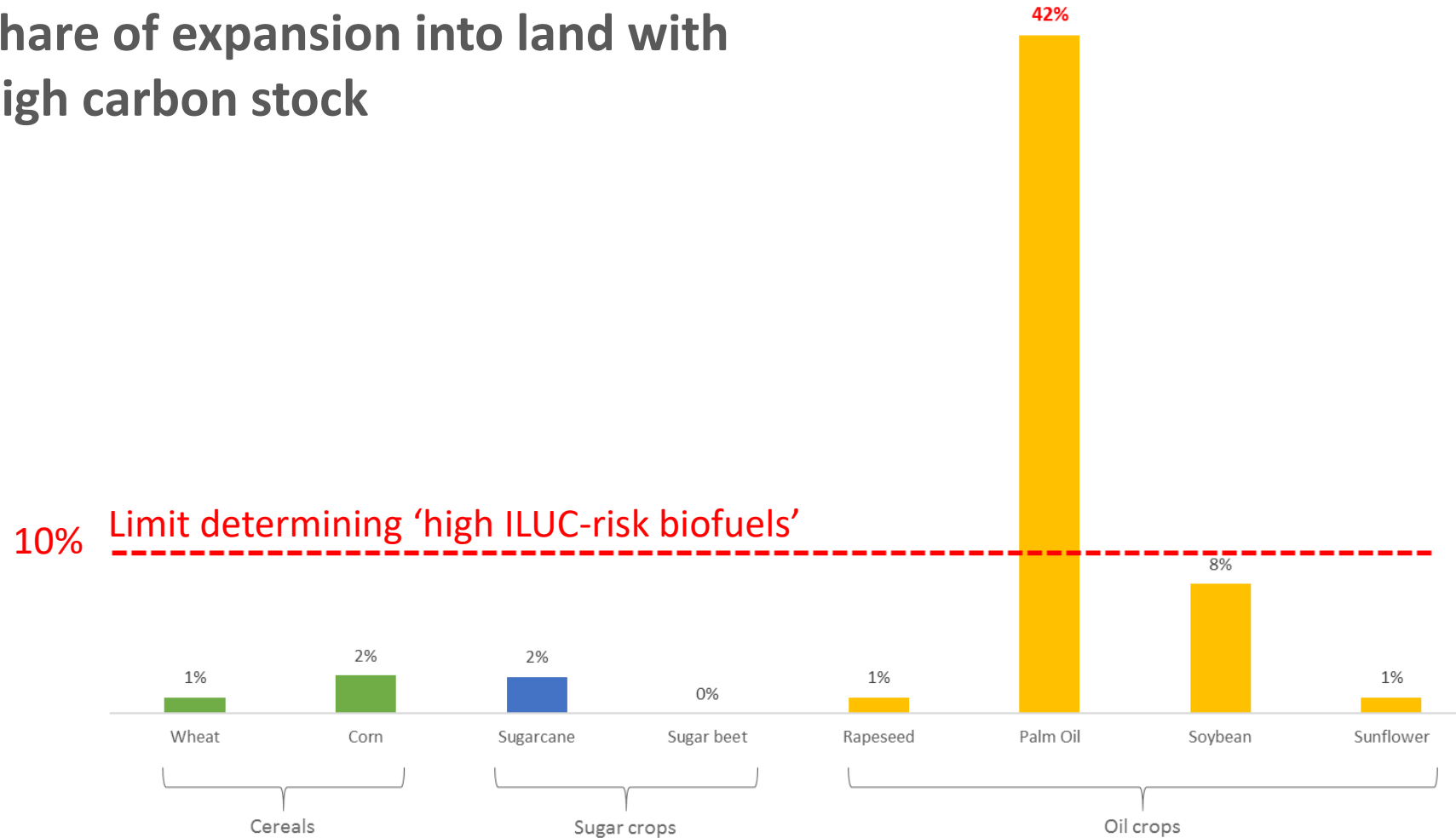
Average certified emissions savings in %



Source: Aggregated and audited data of ePURE members for 2019, 2020
Compared to a fossil fuel comparator of 83.8 gCO_{2eq}/MJ

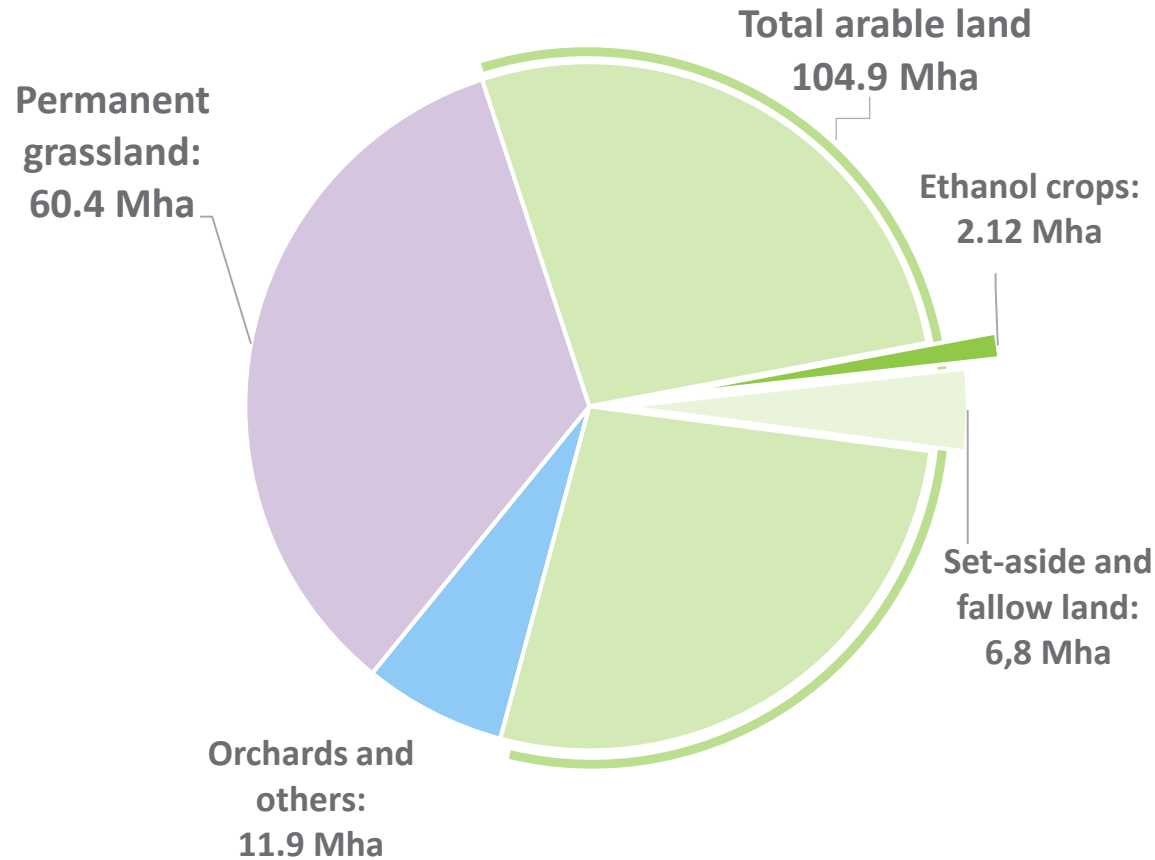
ILUC is no problem for domestic feedstock used for biofuels production

Share of expansion into land with high carbon stock



Source: Commission Delegated Regulation supplementing Directive (EU) 2018/2001 as regards the determination of high indirect land-use change-risk feedstock for which a significant expansion of the production area into land with high carbon stock is observed and the certification of low indirect land-use change-risk biofuels, bioliquids and biomass fuels

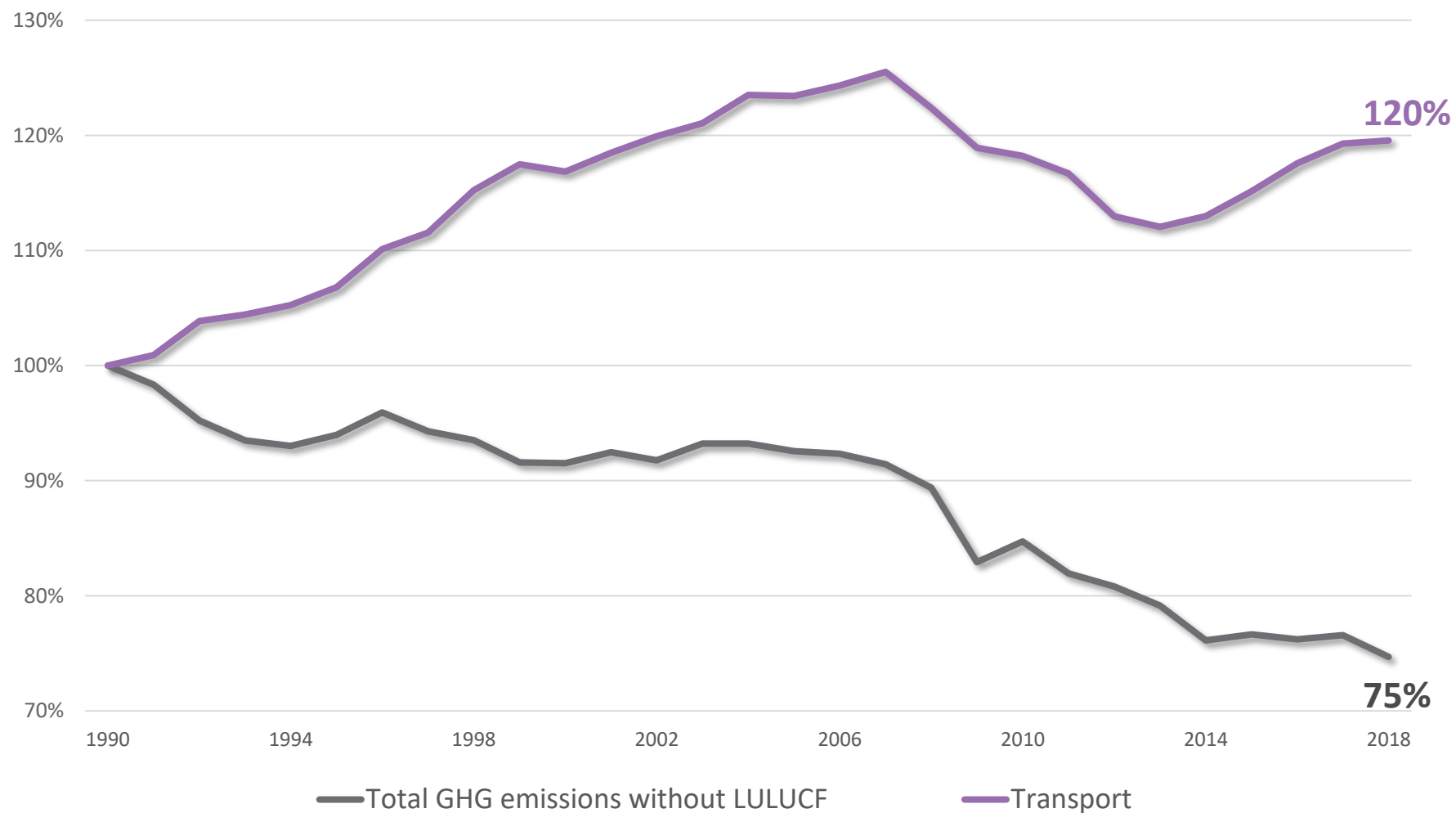
Crops for ethanol and its co-products use little of the EU agricultural area



- Area to cultivate crops for European ethanol and its co-products accounts for **2.2% of the EU utilised arable area in 2018**
- **Considering other co-products** e.g. animal feed, the area for ethanol **would only account for 1.2%**
- The set-aside and fallow land represents an area over 3 times bigger

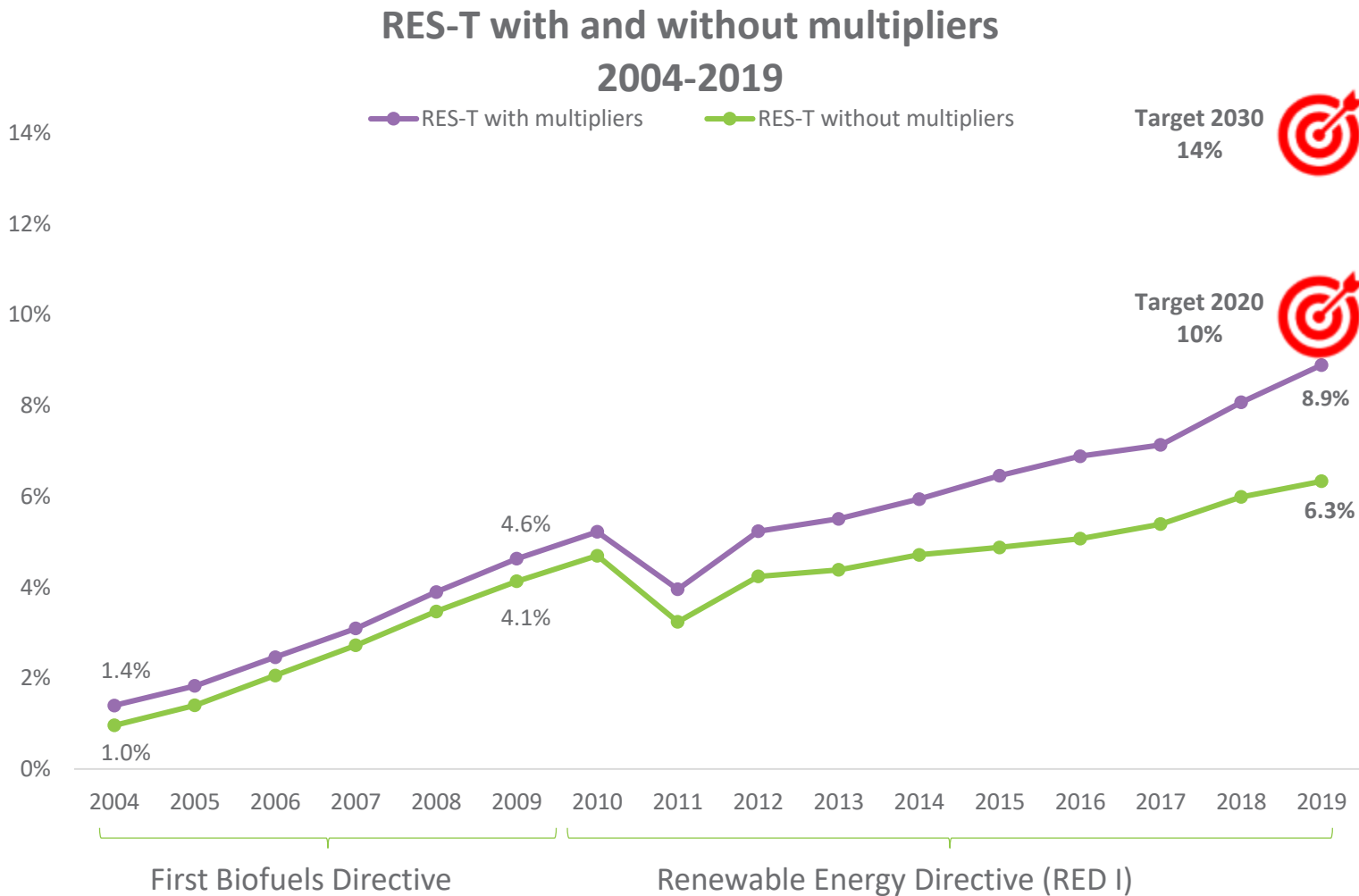
European ethanol's role in meeting the Green Deal

EU transport emissions still rising



Source: UNFCCC, 2020

Renewables in transport (RES-T) Progress and multipliers impact



RES-T progress

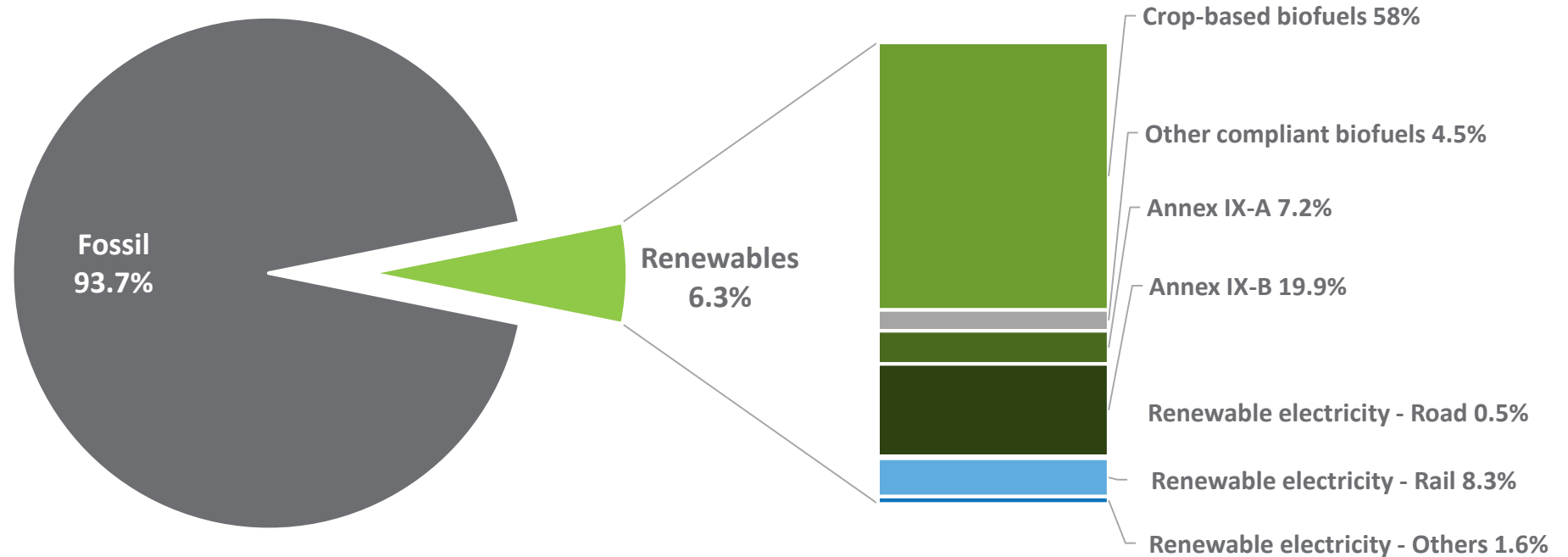
- 8.9%: below target
- 6.3% in reality

Increase

- Since 2004 from 1.4% to 8.9%, BUT
- Since RED I was approved
 - Most of the increase has come from virtual quantities created by artificial multipliers
 - Without multipliers, it has increased by 2.2%

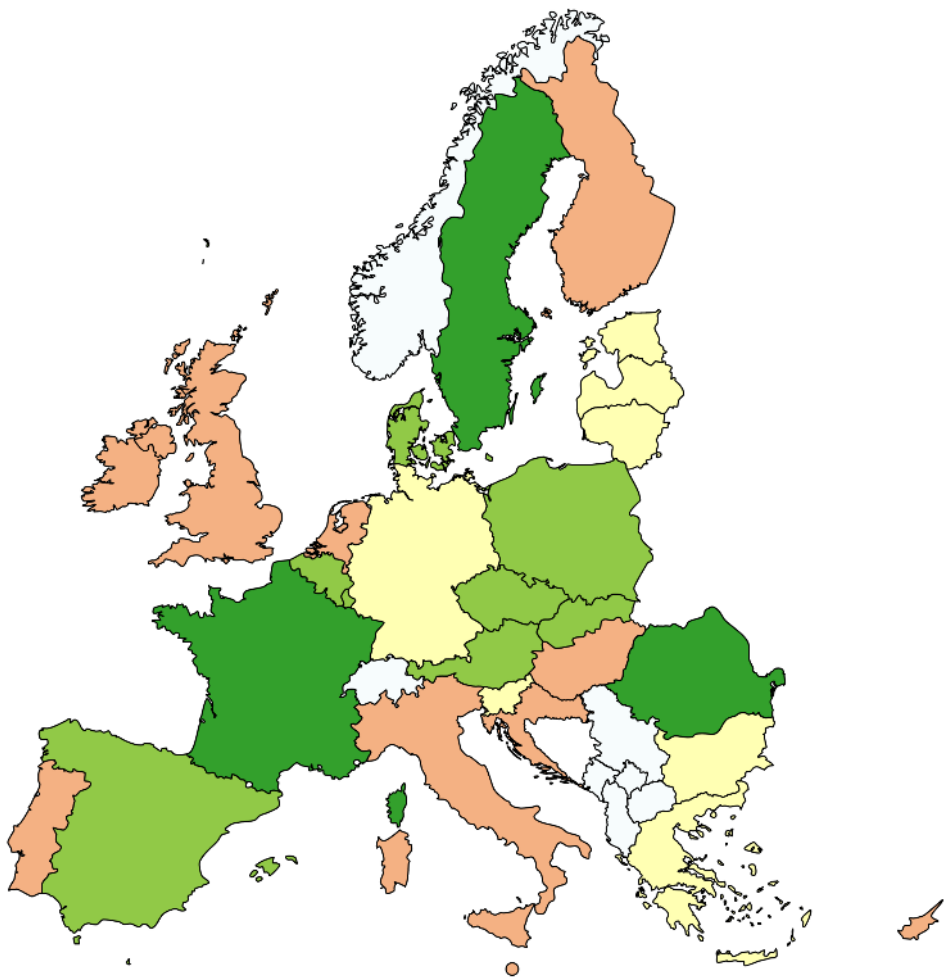
Renewables in transport

Biofuels contribution



- Crop-based biofuels represent the majority of renewables in transport at 58%
- All biofuels together account for about 90% of renewables in transport
- Renewable electricity is mainly used in rail, with a contribution of 8.3%

Share of crop-based biofuels in transport per MS in 2019



FR	6.8%
RO	6.3%
SE	6.1%
AT	5.4%
ES	5.2%
BE	5.0%
PL	5.0%
SK	4.7%
LU	4.6%
DK	4.6%
CZ	4.4%
LT	3.7%
DE	3.5%

BG	3.4%
EE	3.4%
LV	3.4%
SL	2.7%
GR	2.2%
HU	1.7%
PT	1.7%
FI	1.3%
HR	1.2%
NL	1.2%
UK	1.1%
IT	0.9%
IE	0.5%
MT	0.2%
CY	0.0%

EU27+UK average: 3.6%

Source: ePURE, SHARES 2021, calculated according to the methodology of RED I

Ethanol uptake in Europe

Biogasoline incorporation rate remains around 3.7% e/e (\approx 5.5% v/v)

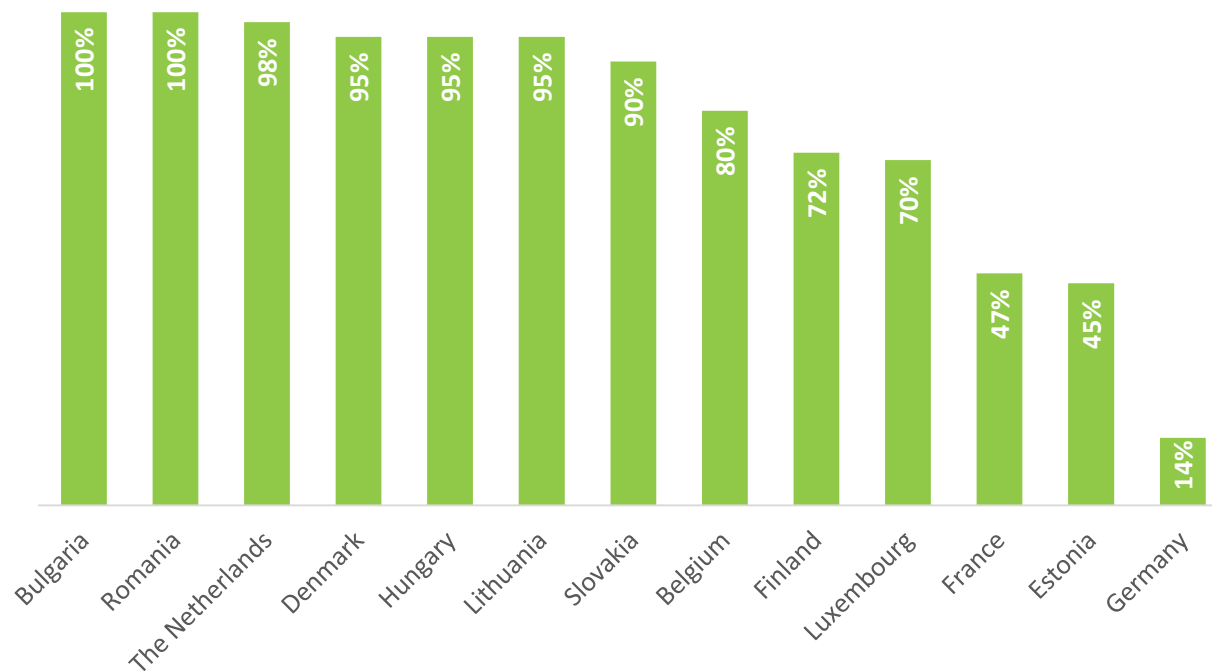
The vast majority of the petrol market remains an E5 market

Multiple grades of petrol in the EU lead to

- Market fragmentation
- Consumer confusion
- Increased costs for the fuel distribution
- Less GHG emissions reduction



E10 petrol market share in selected Member States



Sources: EEA, 2020; Eurostat, 2019; ePURE, 2020. Biogasoline: liquid biofuels suitable to be blended with or to replace motor gasoline from fossil origin e.g. ethanol, methanol and the share of ETBE and MTBE from biomass. %v/v biogasoline assumes biogasoline to be 100% ethanol.

E10 petrol: A growing trend in Member States



E10 is currently available widely at petrol pumps in **Belgium, Bulgaria, Denmark, Estonia, Finland, France, Germany, Hungary, Latvia, Lithuania, Luxembourg, the Netherlands, Romania and Slovakia.**

Next: Sweden and UK

EU policy outlook: RED III

What the Commission is considering

- Raise RES-T ambition for 2030 from 14%-26%
- No change in sustainability criteria for crop-based biofuels – keep cap in place
- Increase advanced biofuels target from 3.5%-5.5%
- Introduce [4%] RFNBO target for transport



What it should do

- Increase RES-T targets to 24% at least without multipliers
- Revise upwards the crop cap while limiting and phasing out only high-ILUC-risk biofuels
- Significantly revise upwards the fuel obligation
- Ramp up sub-target for advanced biofuels
- **Unleash potential of all sustainable renewable low-carbon fuels to contribute to EU goals**

EU policy outlook: 'Fit for 55' package

What the Commission is preparing

- Effort Sharing Regulation
- Emissions Trading System
- Energy Taxation Directive
- Alternative Fuels Infrastructure Directive
- CO₂ standards for cars and vans



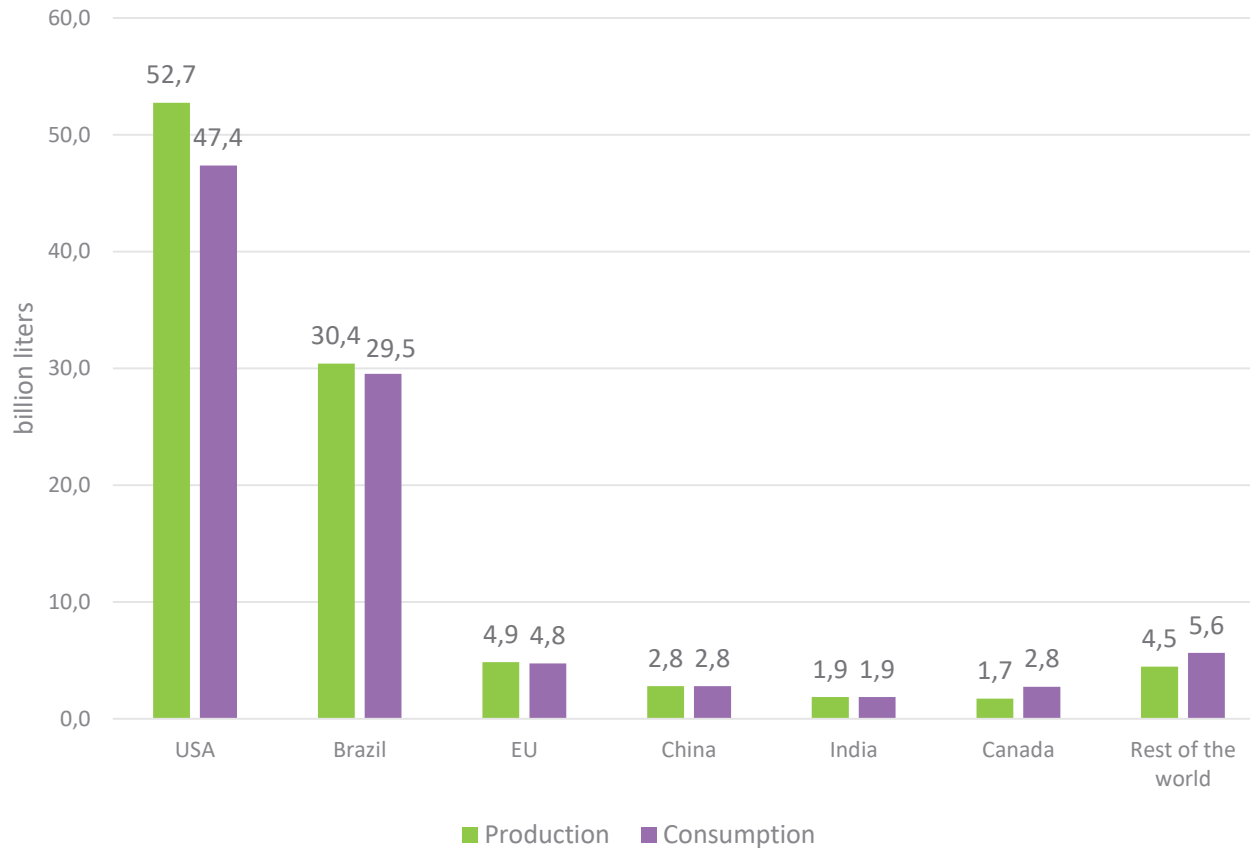
What it should do

- Keep binding targets, especially for transport
- No separate ETS for transport
- move away from volume-based taxation to carbon intensity
- Keep sustainable biofuels in scope of AFID
- Move from tank-to-wheel to well-to-well approach for life-cycle emissions
- **Higher targets for 2030 and 2050 require an all-hands-on-deck approach, with EU policies that are not counterproductive and promote solutions that deliver...**

Trade policy

EU is third-largest producer, but tiny compared to U.S. and Brazil

Fuel ethanol production
and consumption 2020

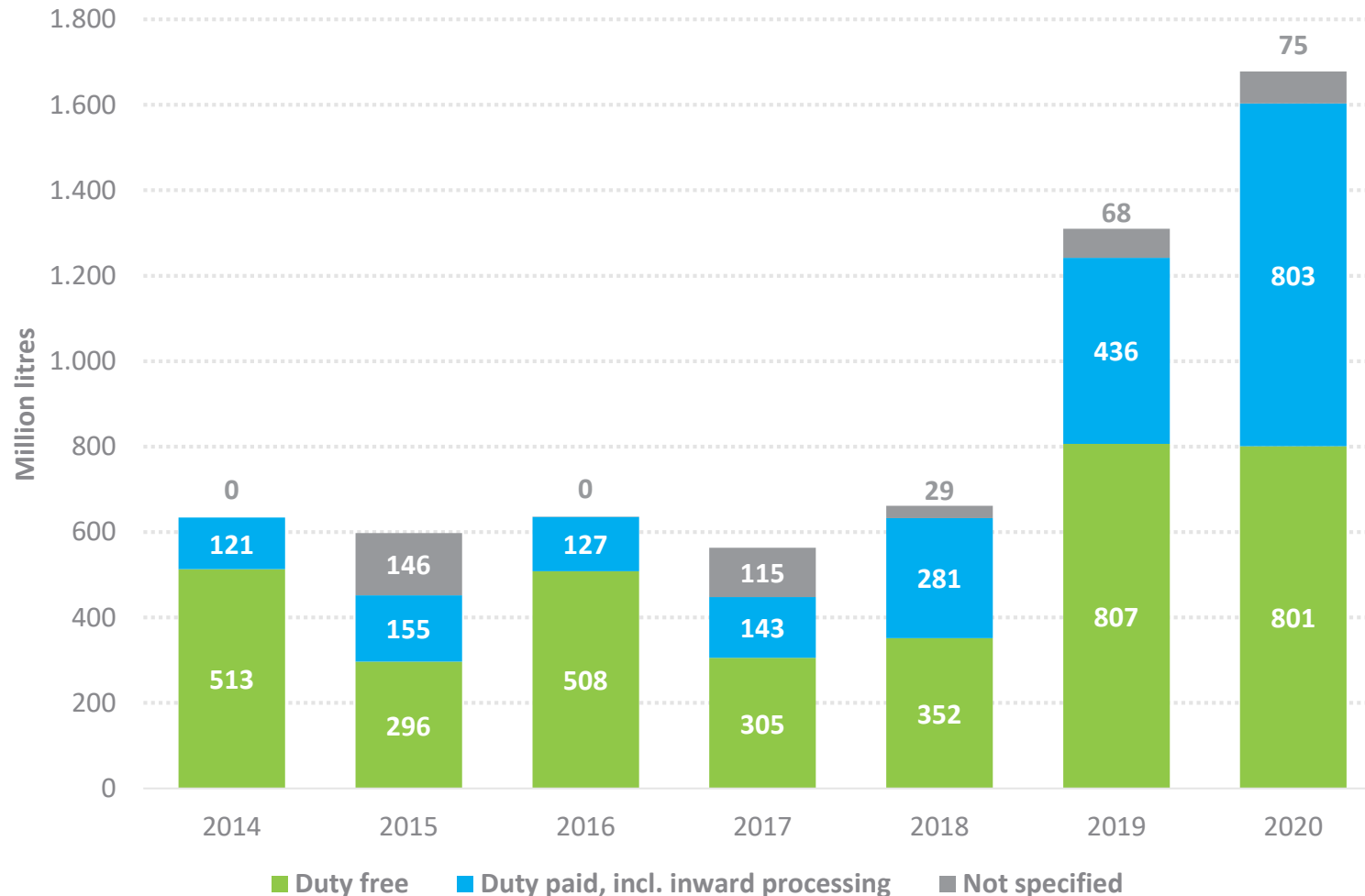


Source: FO LICHT, 2021

Globally 99 billion litres fuel ethanol produced in 2020

- The U.S. alone accounts for 53% of global fuel ethanol production
- Brazil accounts for 31% of production
- Most volumes are consumed where they are produced but 'minor' exports for the two giants are 'major' imports for other countries
 - No more ADD on U.S. imports
 - EU-Mercosur agreement foresees TRQ for ethanol

Trade: Evolution of imports



In 2019, EU ethanol imports doubled vs 2018

- reaching 1.3 billion litres
- out of which 67% enjoyed duty free access
- US increased by 233%

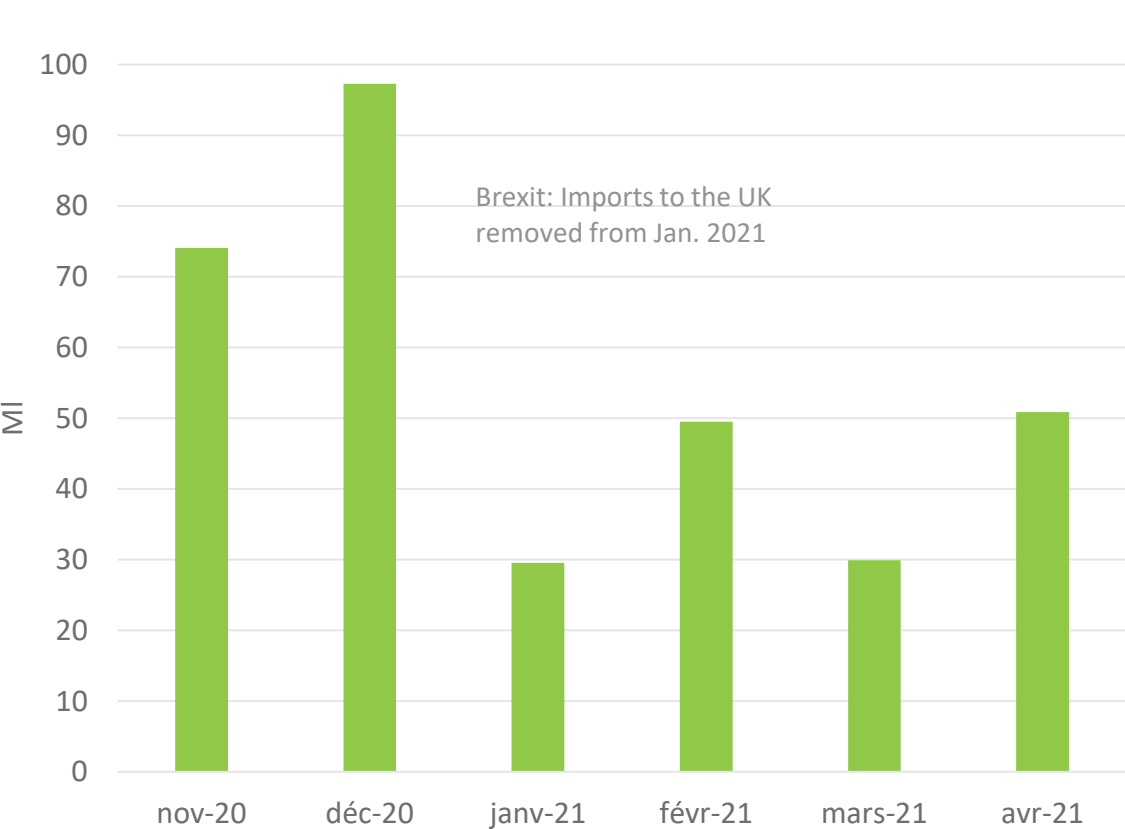
In 2020, an additional 28% increase

- Reaching 1.6 billion litres
- Share of duty paid increased
 - US +333% vs 2018
 - Brazil +226% vs 2018

Surveillance on imports of renewable fuel ethanol

Total registered imports under 2207 10 and 20

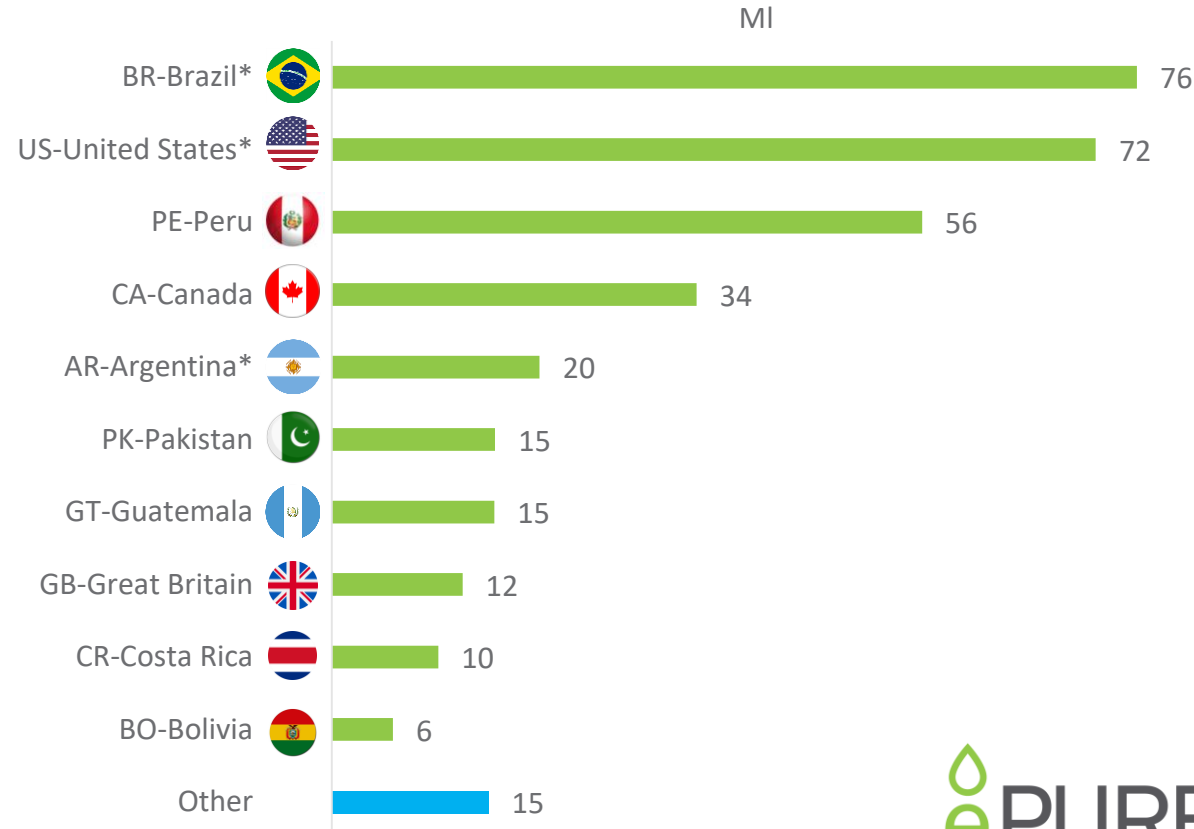
Imports in million litres in Nov. 2020 - Apr. 2021



Source: DG Taxation and Customs Union

Top 10 imports of fuel ethanol CN 2207

Imports in million litres in Nov. 2020 - Apr. 2021



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