



EU ethanol market and policy perspectives

ePURE: Voice of the EU ethanol industry

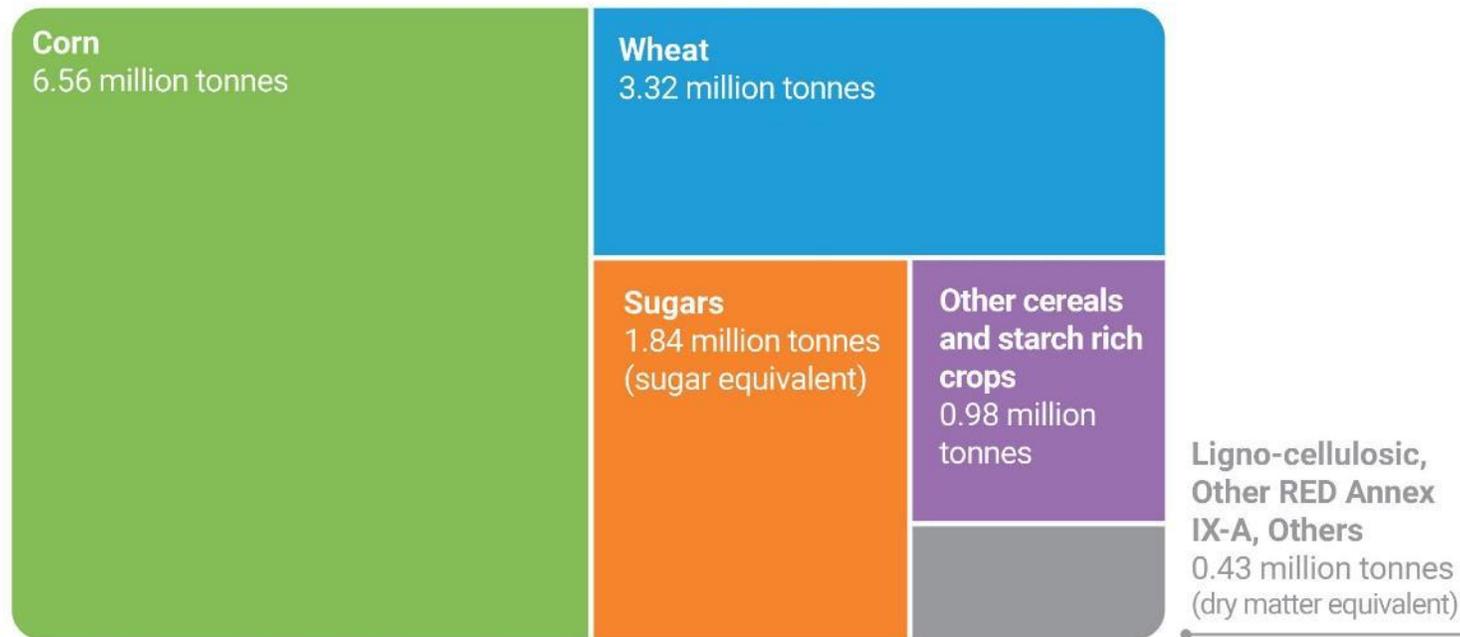


- 35 members, including 19 producing companies
- 50 plants across 16 EU countries
- 85% of EU renewable ethanol production

European ethanol sustainability credentials

ePURE ethanol: Made in/from Europe

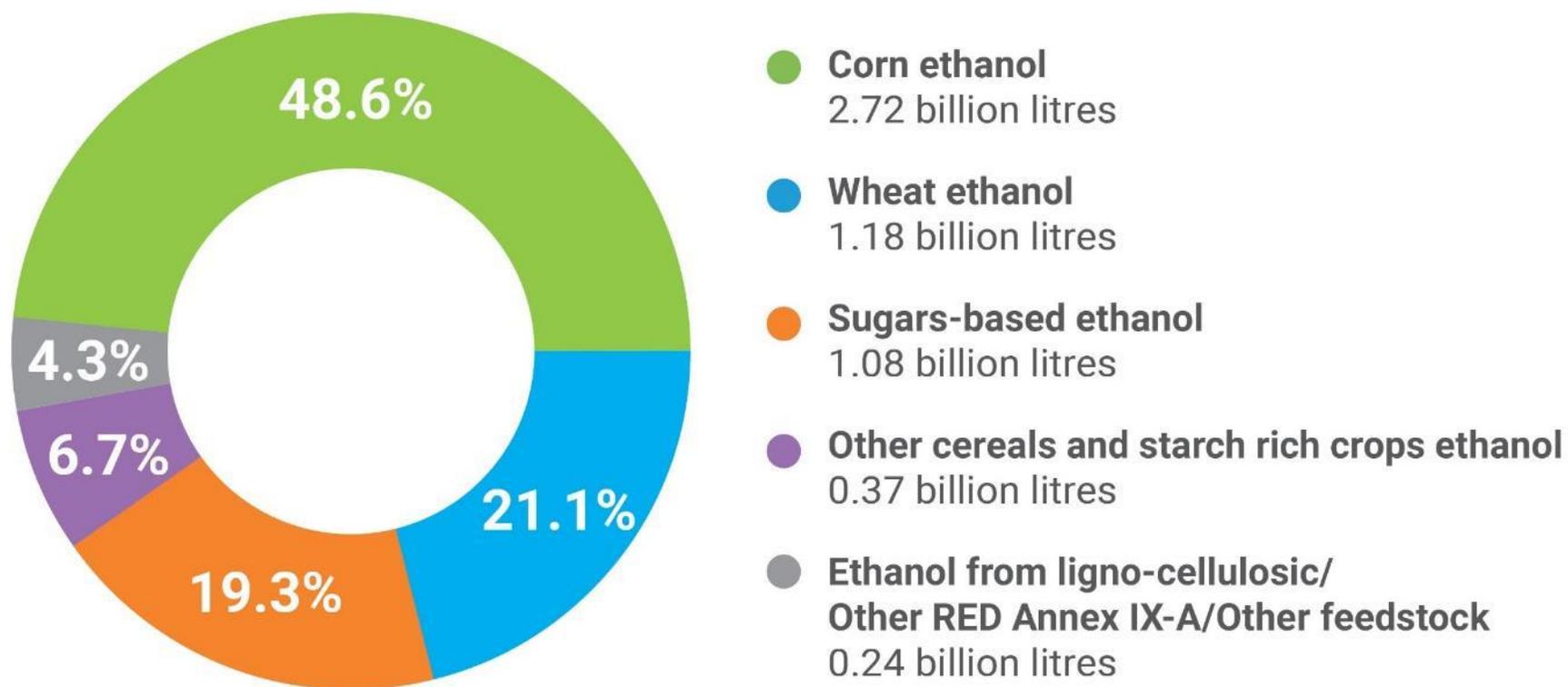
Feedstock used to produce renewable ethanol



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

ePURE ethanol: European feedstock

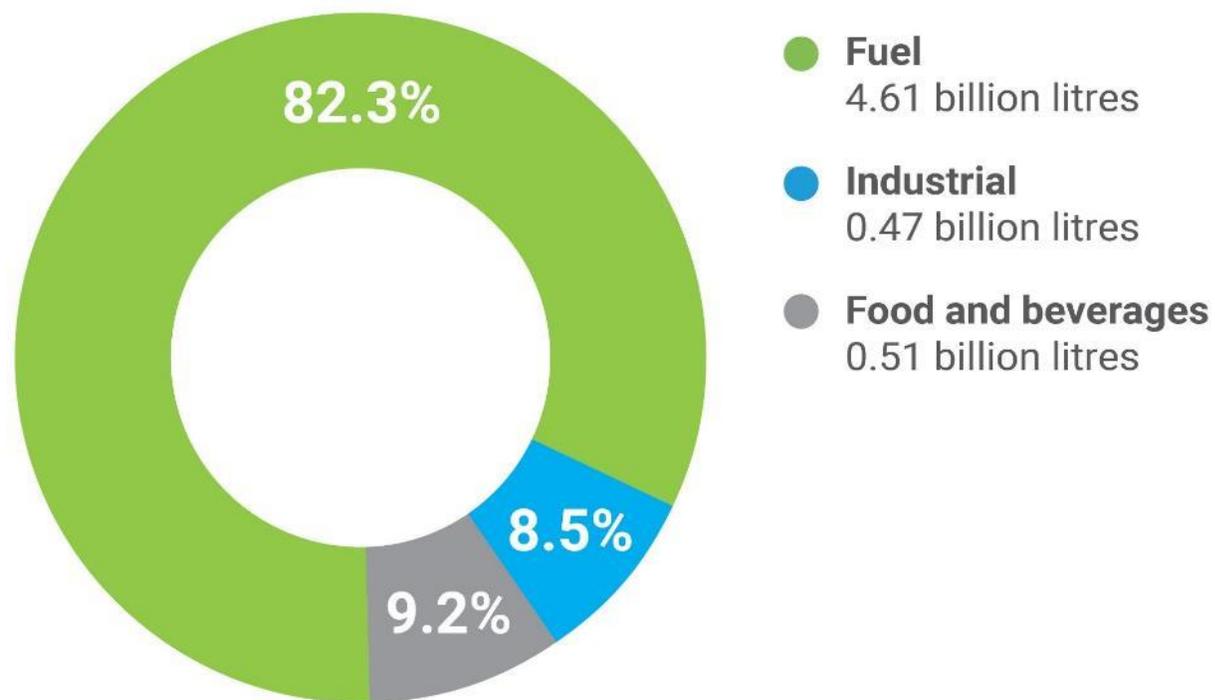
Share of European renewable ethanol produced from each feedstock type



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

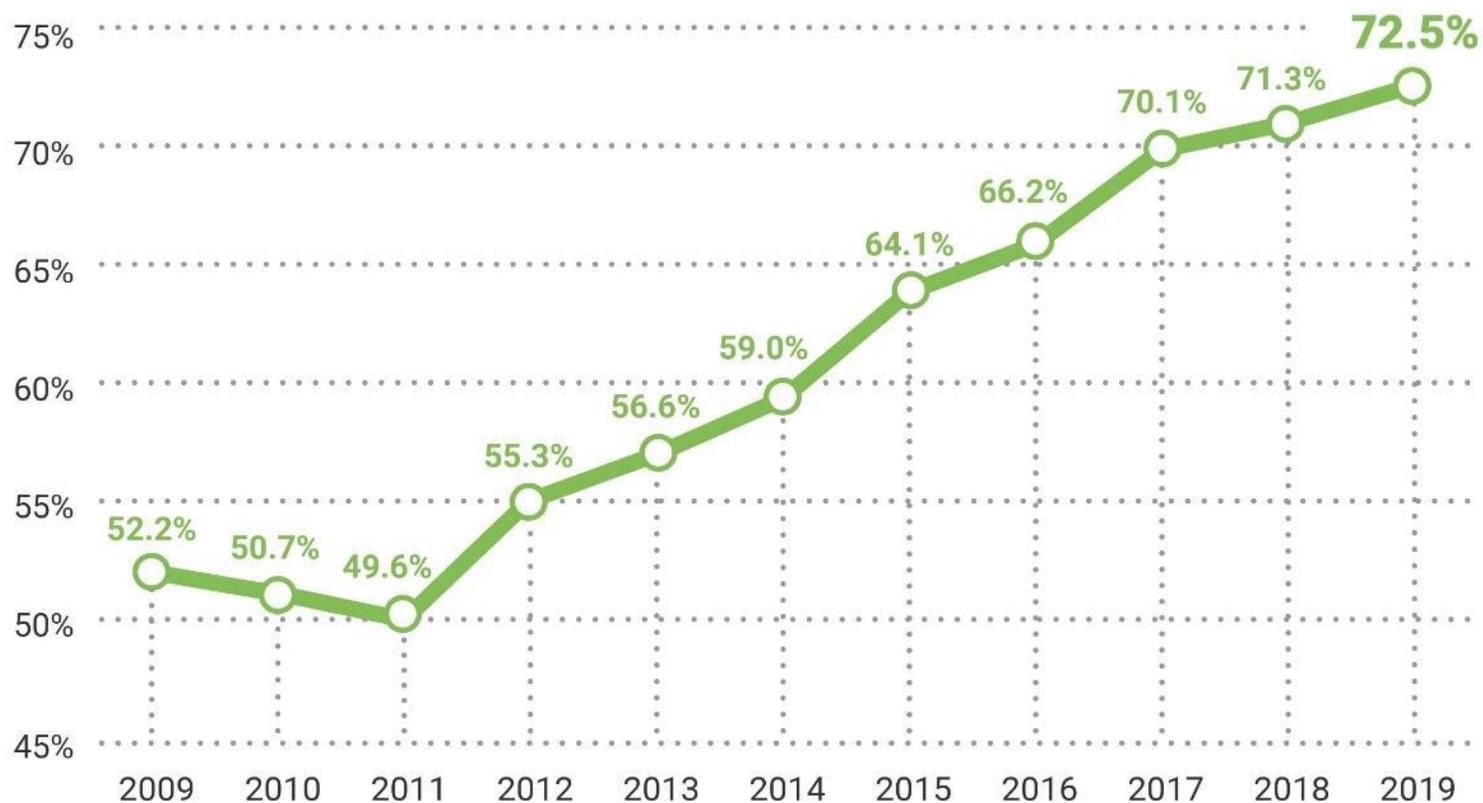


In 2019, ePURE members produced 5.6 billion litres of ethanol, operating at 87% of their 6.45 billion litres of installed capacity

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

ePURE ethanol: GHG emission savings

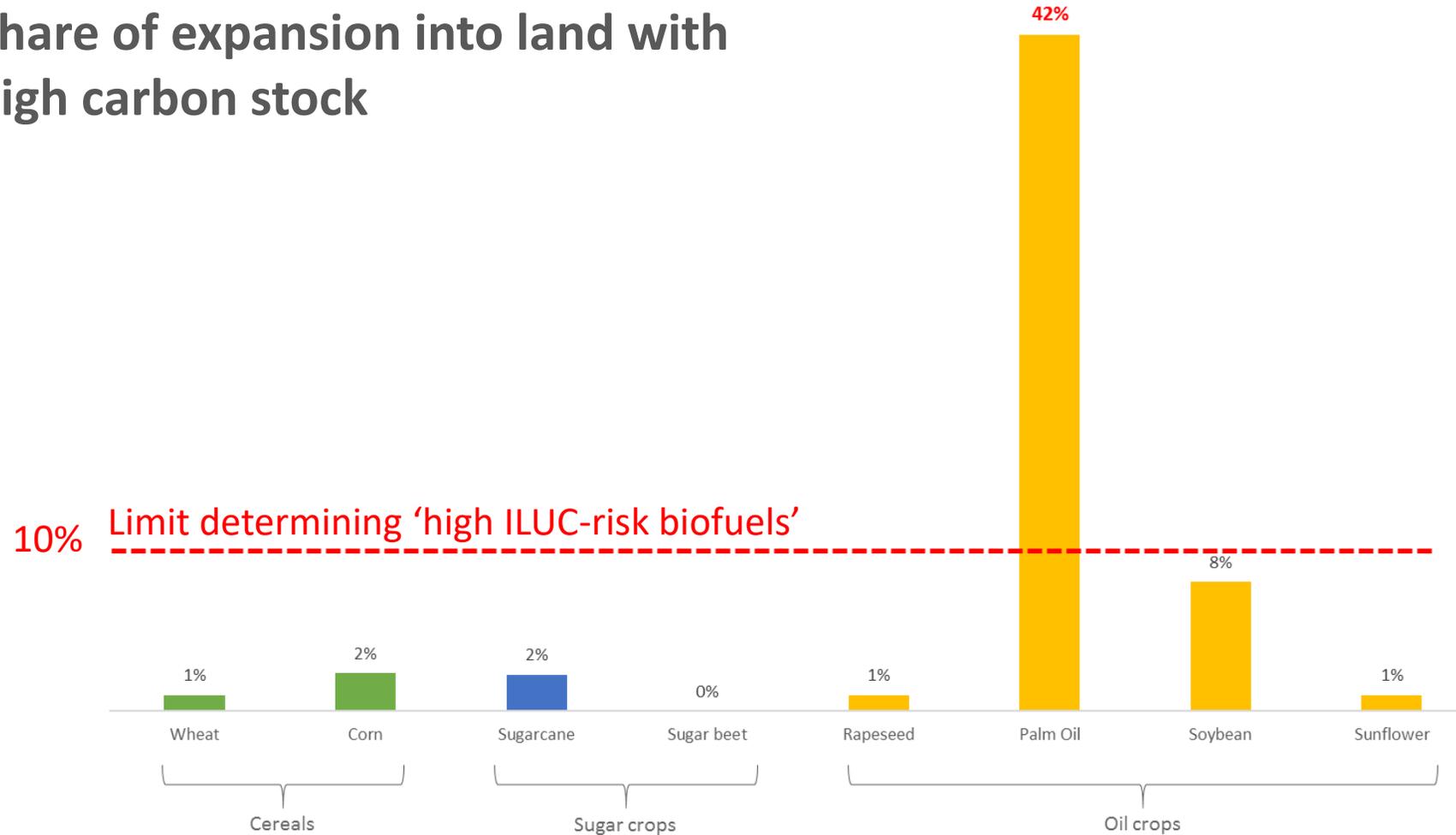
Average certified emissions savings in %



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

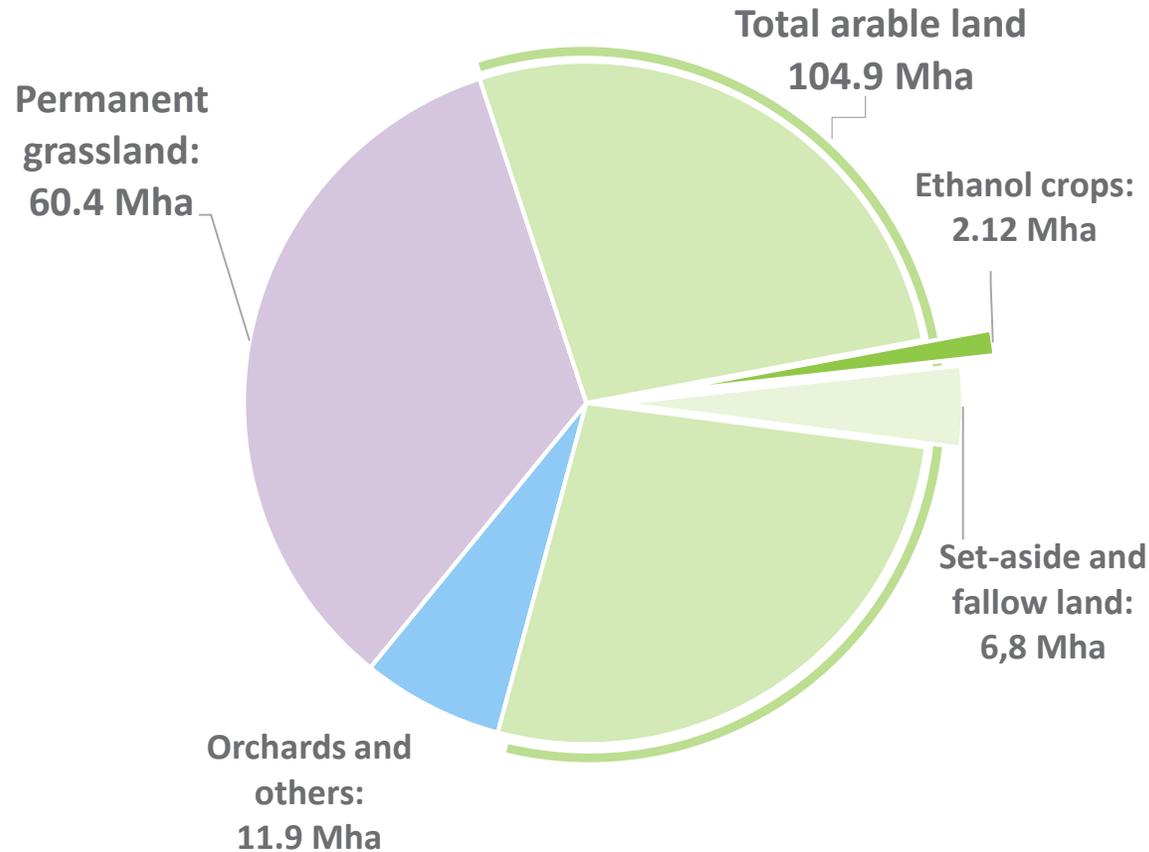
ILUC is no problem for domestic feedstock used for biofuels production

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

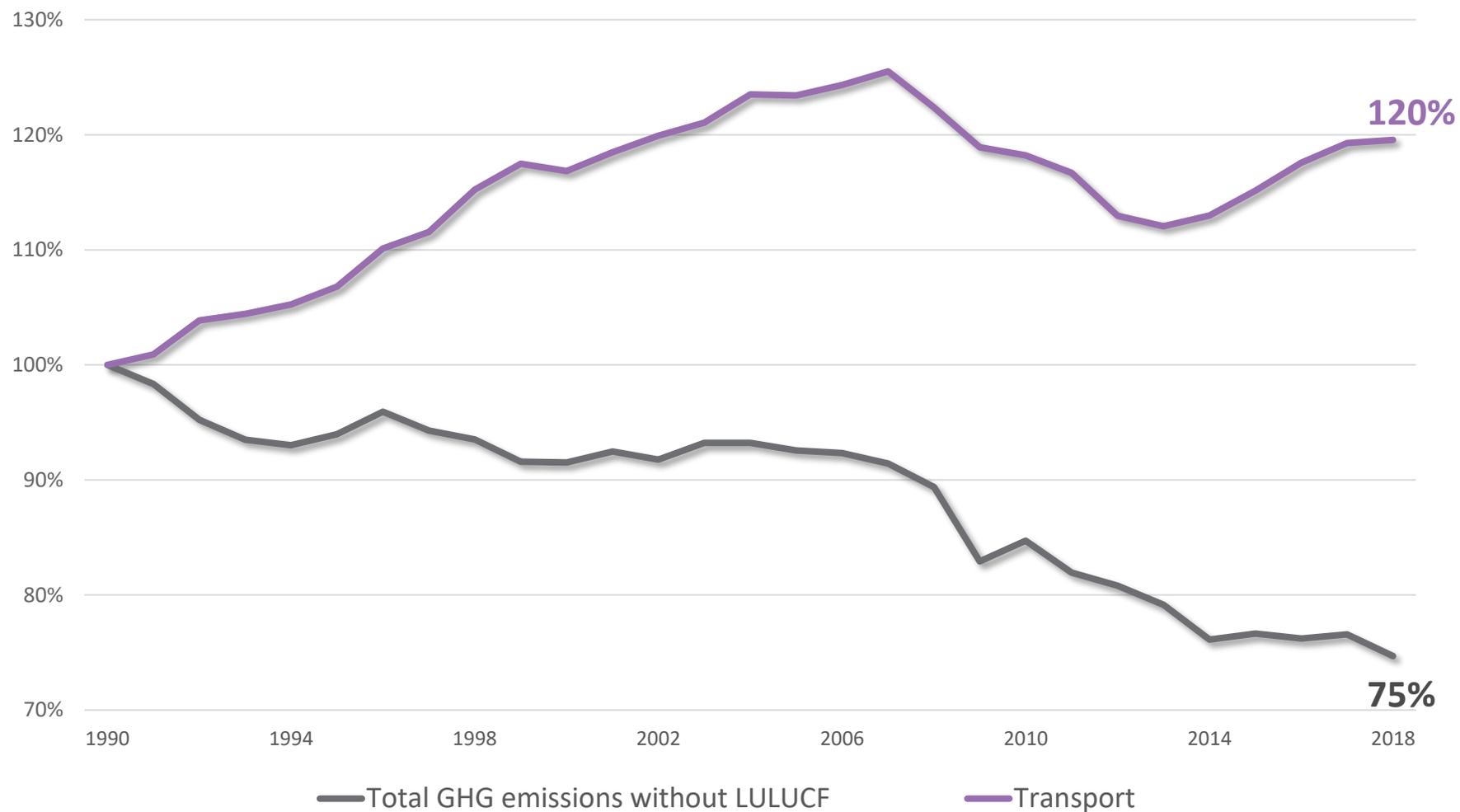


- Area to cultivate crops for European ethanol and its co-products accounts for **2.2% of the EU utilised arable area in 2018**
- **Considering other co-products** e.g. animal feed, the area for ethanol **would only account for 1.2%**
- The set-aside and fallow land represents an area over 3 times bigger

Sources: ePURE calculations from EU Agricultural Outlook and JRC RED II Default Values input data. 100% of the crops used for EU ethanol production are assumed to be of EU origin. Land is allocated according to the output of ethanol plants.

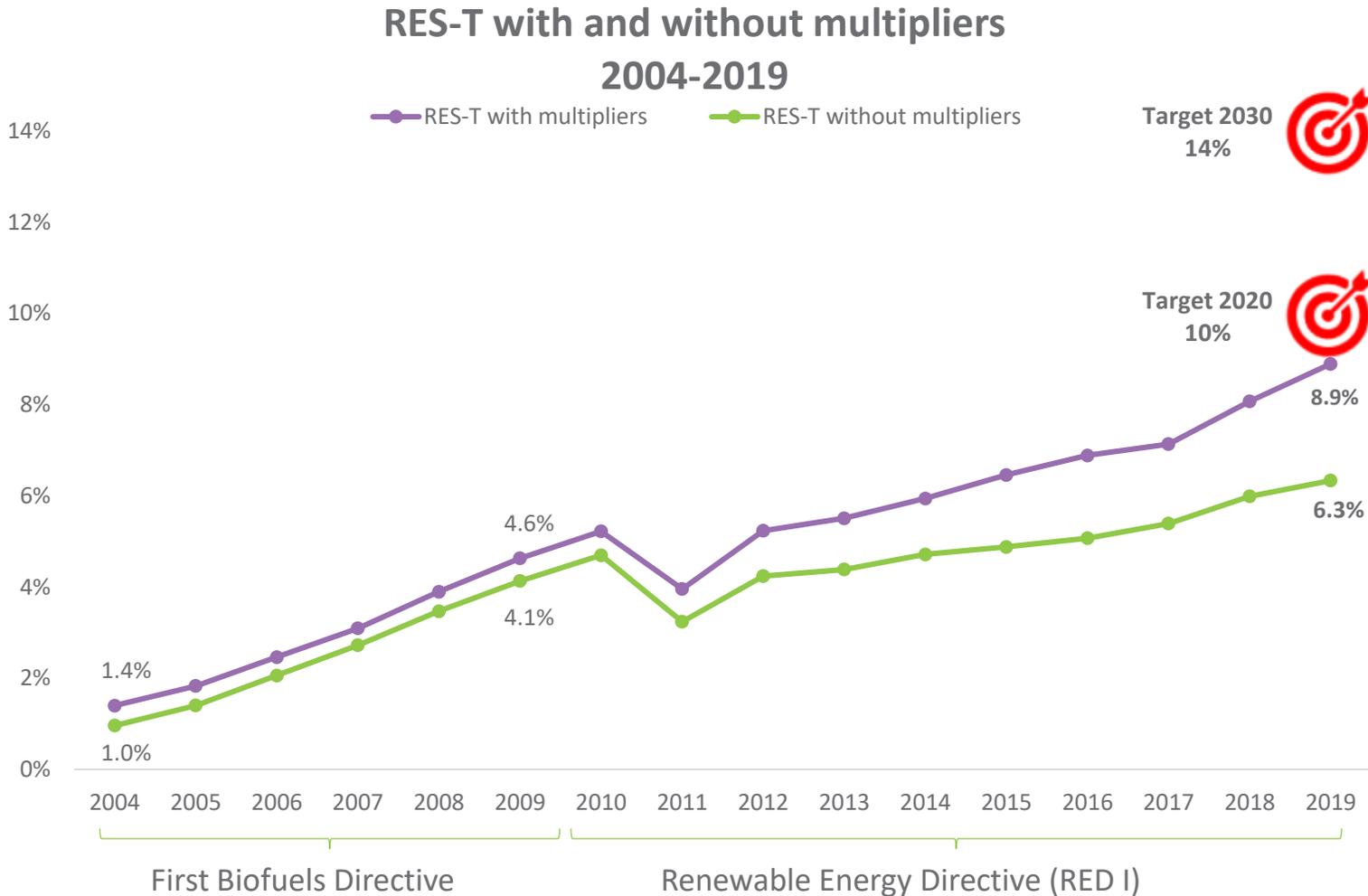
European ethanol's role in meeting the Green Deal

EU transport emissions still rising



Source: UNFCCC, 2020

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



RES-T progress

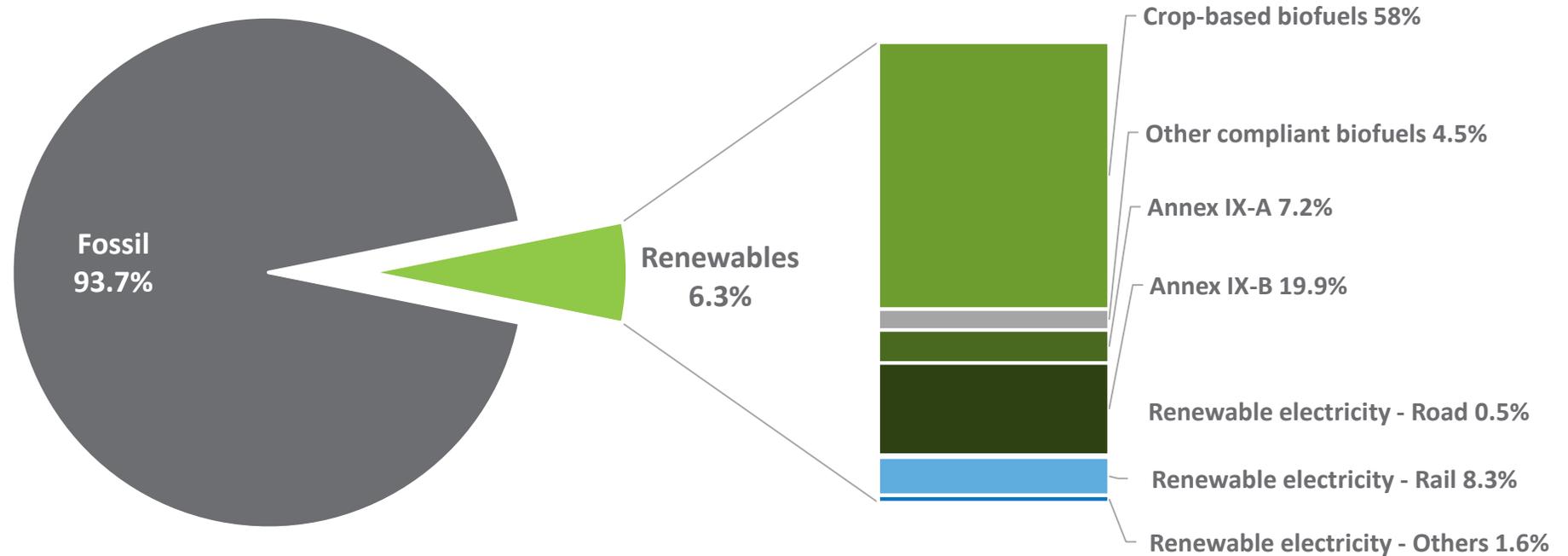
- 8.9%: below target
- 6.3% in reality

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%

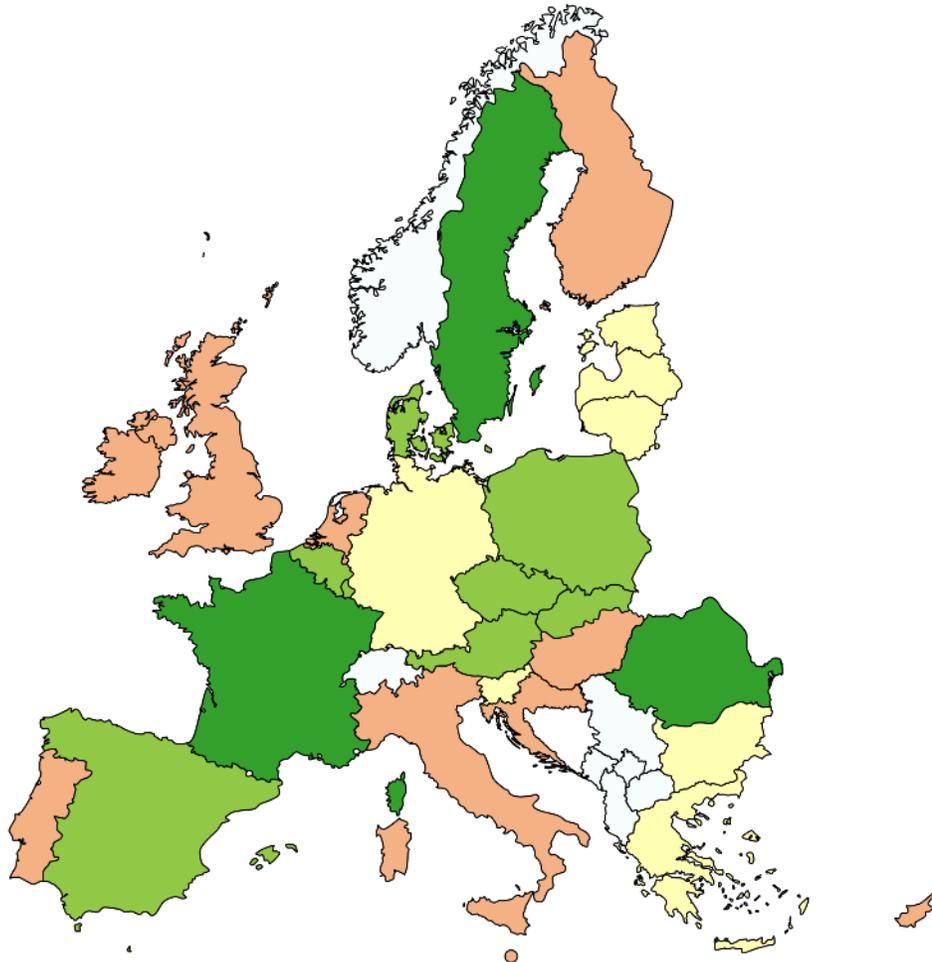
Renewables in transport

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%

Ethanol uptake in Europe

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

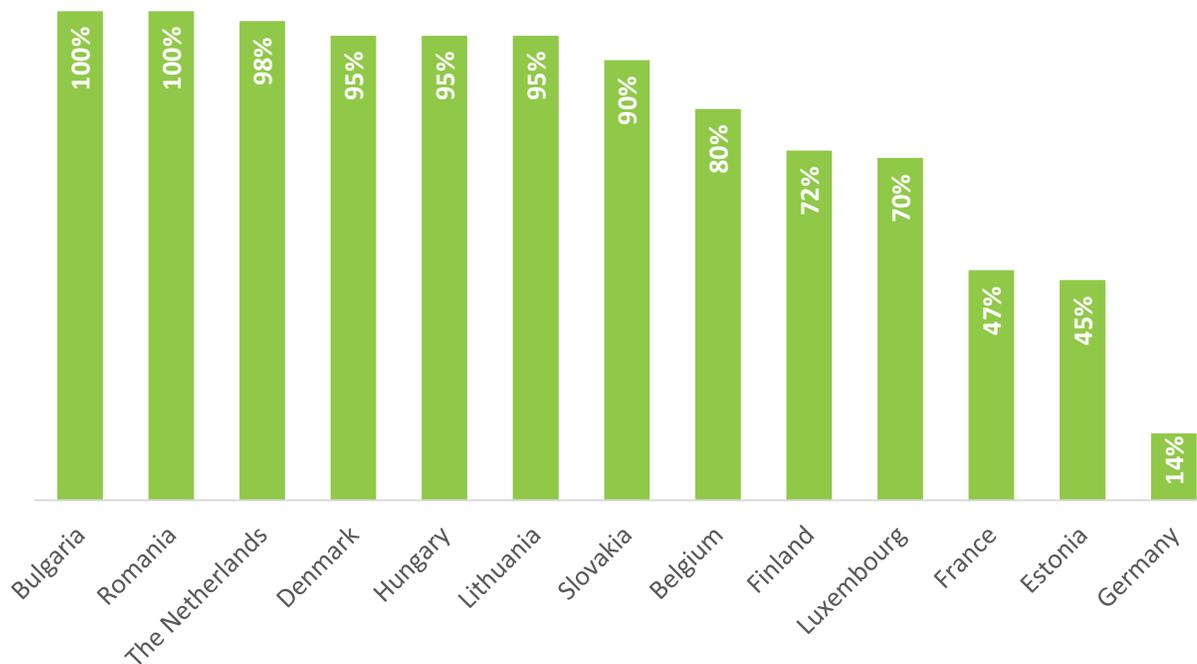
The vast majority of the petrol market remains an E5 market

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



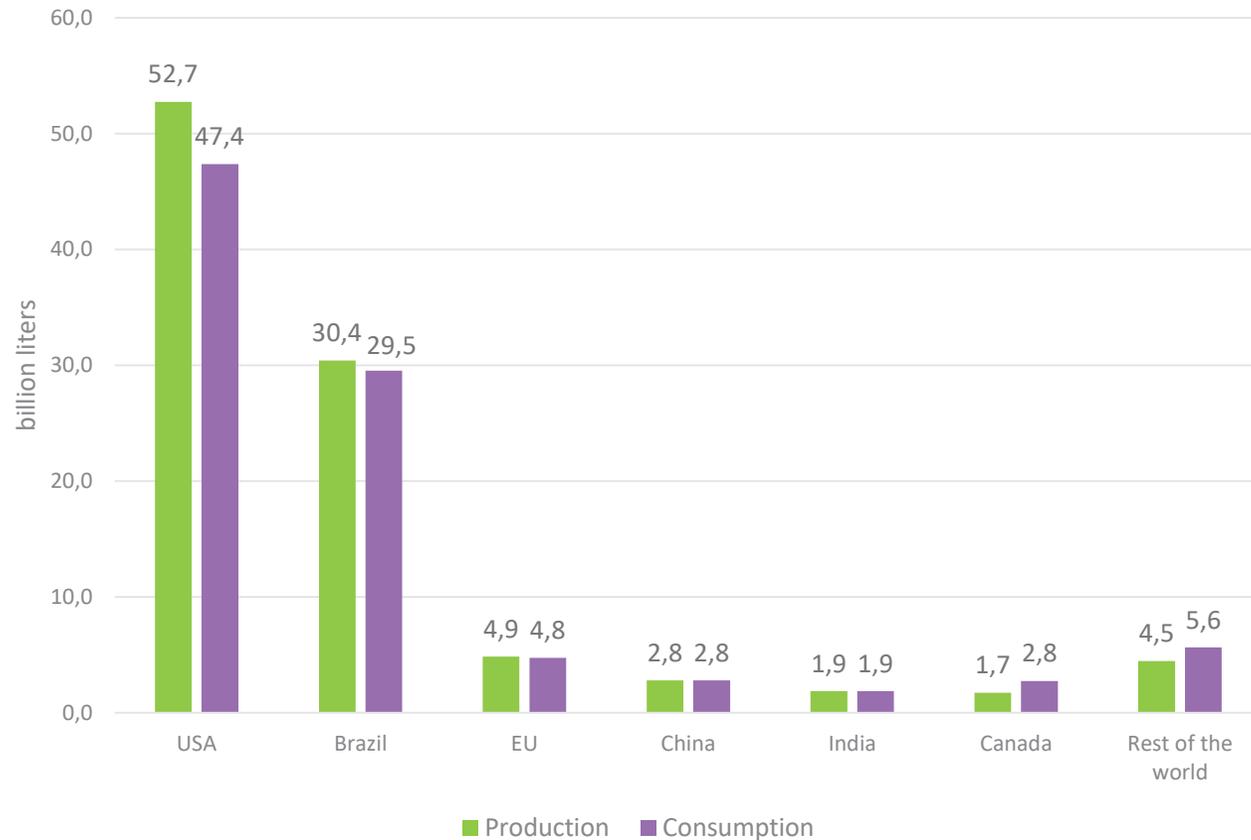
What it should do

- 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

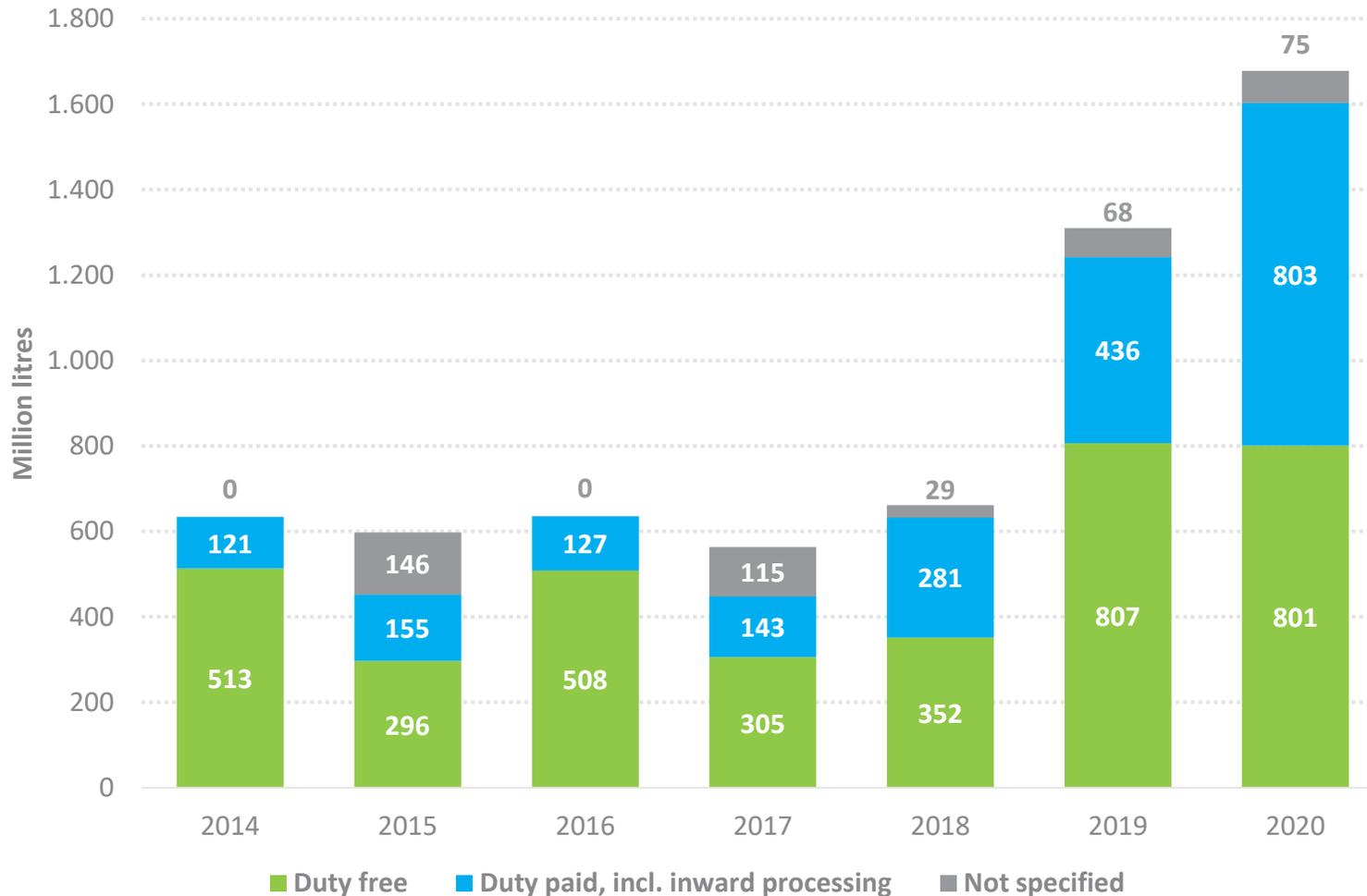


Source: FO LICHT, 2021

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%

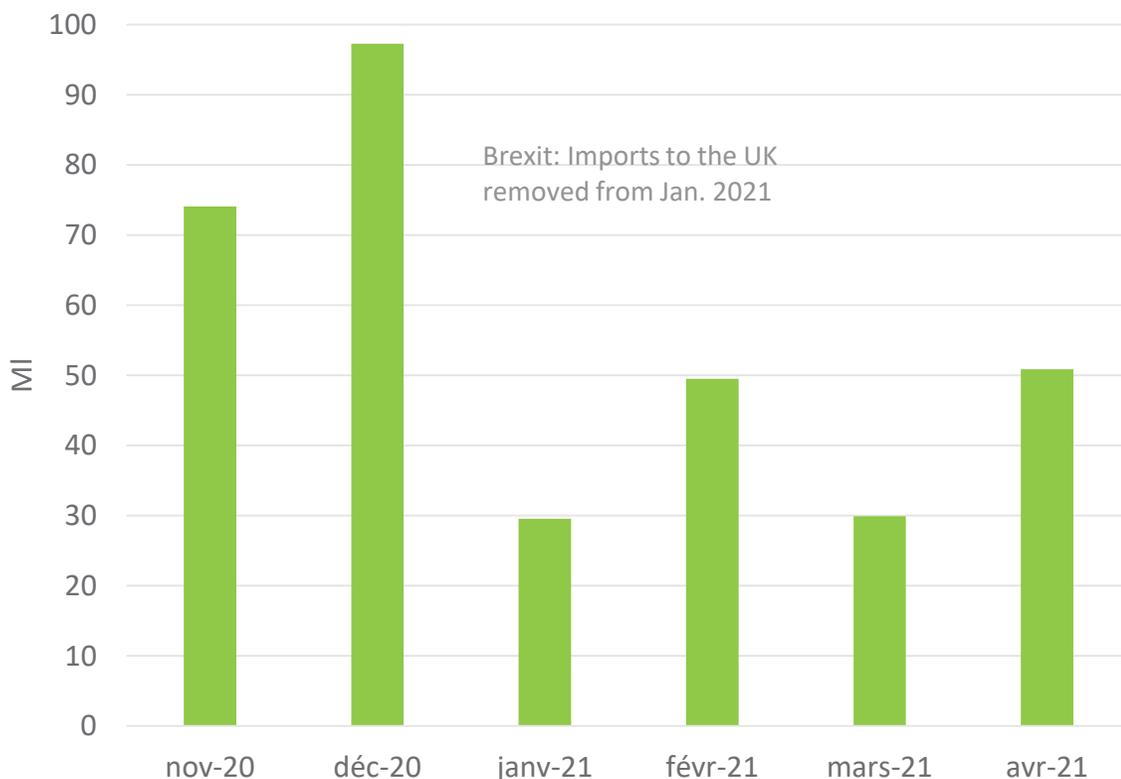
In 2020, an additional 28% increase

- 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

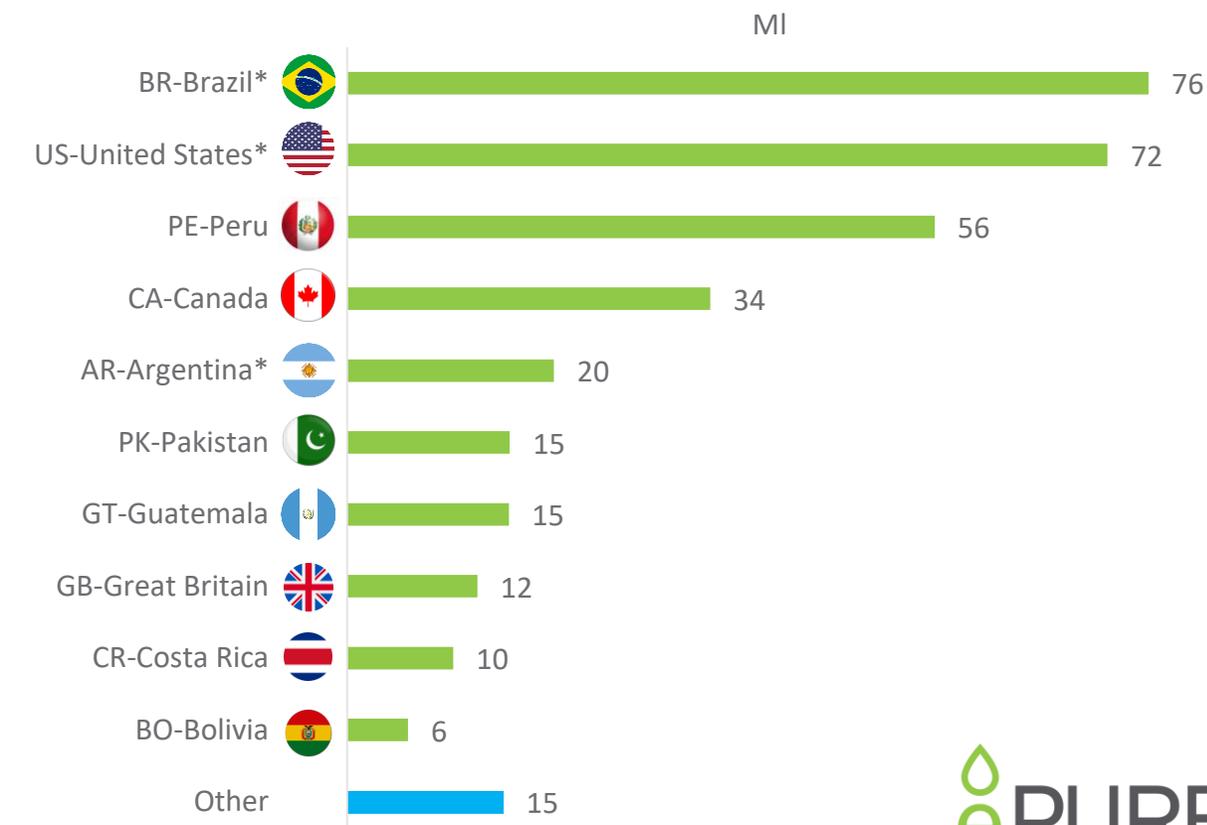
Imports in million litres in Nov. 2020 - Apr. 2021

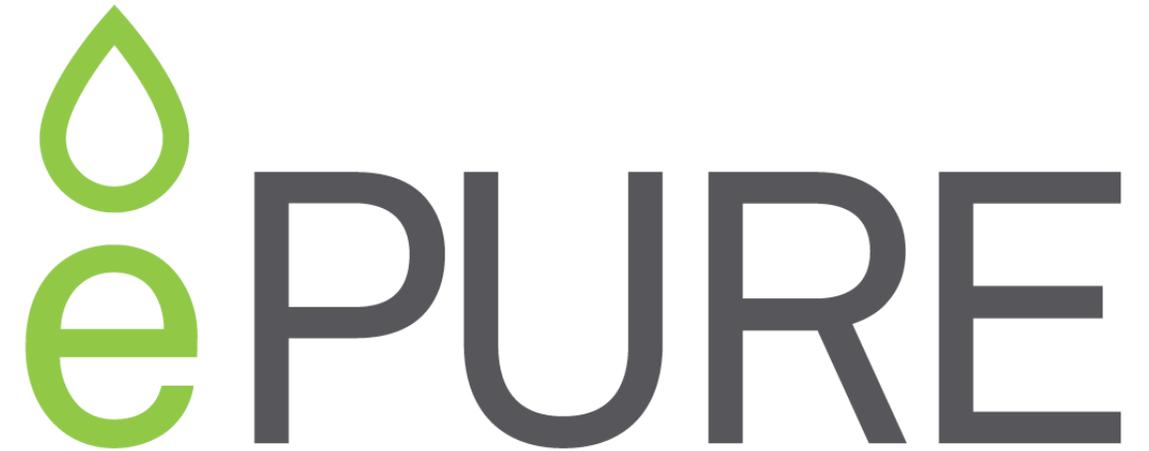


Source: DG Taxation and Customs Union

Top 10 imports of fuel ethanol CN 2207

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





ePURE

european renewable ethanol



Rue de la Loi 223 B-1040 Brussels



+32 2 657 66 79



info@epure.org



epure.org



@ePURE_ethanol