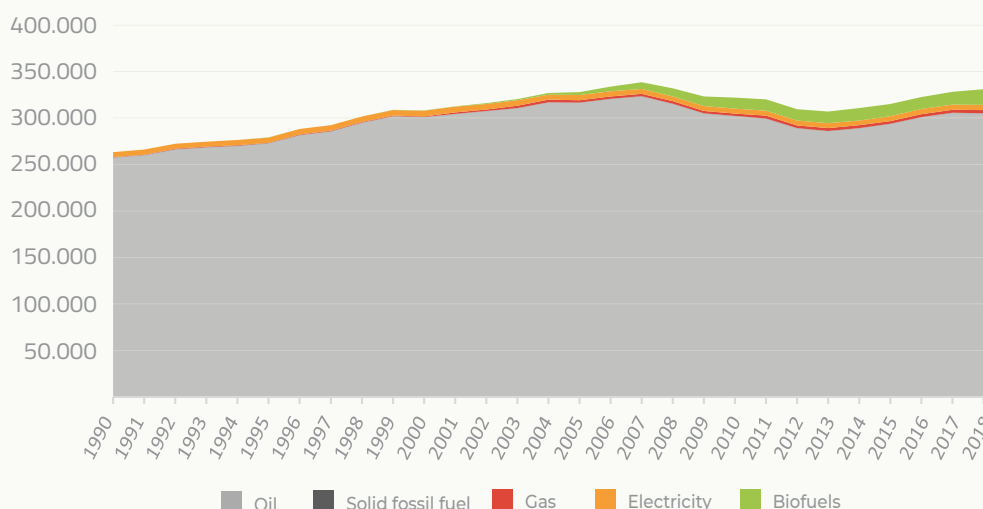


BIOFUELS FOR TRANSPORT

Transport currently accounts for a quarter of the EU's greenhouse gas emissions, and its share continues to grow. To achieve climate neutrality, a steep reduction in transport emissions is needed by 2050. All transport sectors will need to contribute to the reduction, with a prompt shift to low-emission mobility crucial to achieving the EU Green Deal's ambitious decarbonisation goals. Biofuels – already the largest renewable energy source in transport – will continue to be a concrete and viable solution to reducing road, aviation, and waterborne transport emissions.

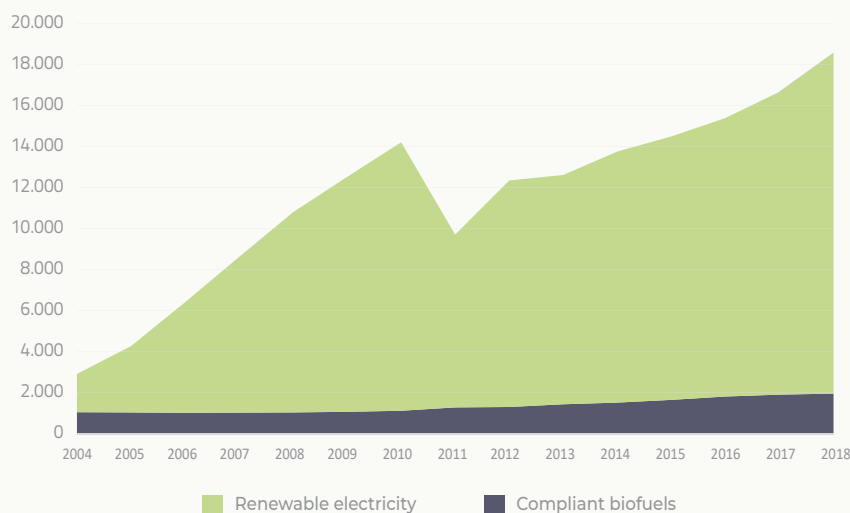
Evolution of the final energy consumption in the transport sector in EU28 (in ktoe) by energy type
(Source: Eurostat)

Note: In 2018, solid fossil fuels accounted for 11 ktoe corresponding to less than 0,003% of the energy consumed in transport



EU transport is still heavily dominated by fossil fuels, as depicted in the above graph. Despite the gradual growth of biofuels, this continued dependence on oil casts doubt on the real impact of the existing renewable energy policy framework and political commitment to decarbonising the transport sector. In 2018 oil represented 92% of final energy consumption in transport while low-emission and renewable solutions still accounted for a very marginal portion (about 5%). The highest contribution to renewable energy in the EU transport system is covered by sustainable biofuels (89% of renewable energy in transport), whose consumption grew consistently in the last decade – despite the 2011 setback following the lengthy implementation of the Renewable Energy Directive at a national level.

Evolution of renewable energy consumption in the transport sector in EU28 (in ktoe) by fuel type*
(Source: Eurostat SHARES 2018)



*Without multipliers

Biofuels production and resource efficiency

The output of EU biofuels plants maximises resource efficiency. Innovative biorefineries process European agricultural feedstock (crops, wastes, residues) into renewable fuel that reduces greenhouse gas emissions from road transport; high-protein, GMO-free animal feed that reduces the need for imported soybean meal; and captured CO₂ for use in beverage applications.

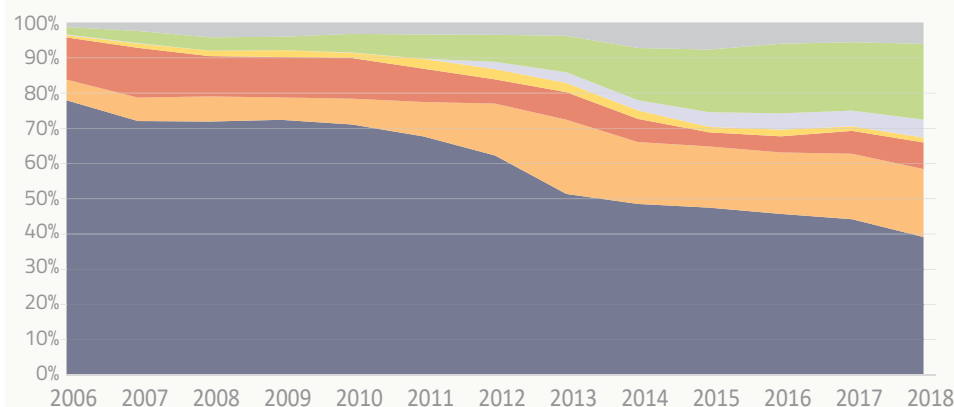
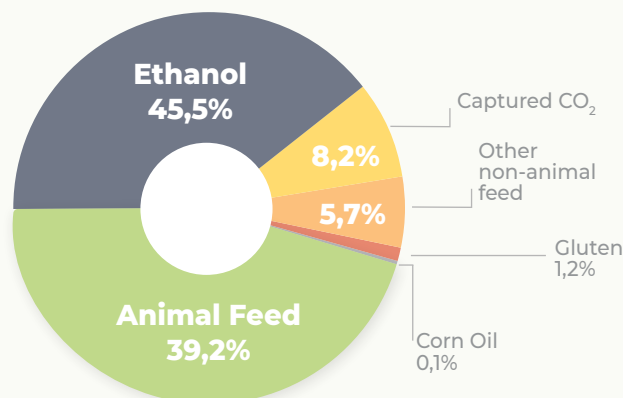
These refineries are part of a circular economy that makes the most sustainable use of land and waste materials and reduces reliance on fossil fuel. Indeed, from ethanol processing other important co-products are obtained such as animal feed and captured CO₂.

Circular economy

The principle of the circular economy is well applied by the EU biofuels industry. Indeed, since 2006 the use of waste and residues (such as animal fats and used cooking oil) to produce biodiesel has grown by 23 times, and now representing almost 30% of the feedstock for biodiesel production. Cellulosic ethanol production (and ethanol from other Annex IX-A feedstocks, including wine residues) is another growing sector that contributes to/contributing to the circular economy.

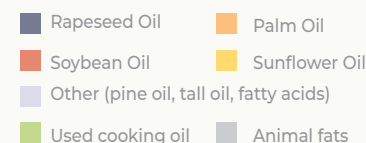
Share of mass output of ePURE Members' ethanol plants in Europe in 2019 (in %)

(Source: ePURE audited 2019 data)



Evolution of the feedstock for biodiesel production in EU28 (in %)

(Source: USDA and Bioenergy Europe's calculations)



RECOMMENDATIONS

- 1. Recognise the important role of biofuels in transport decarbonisation both now, and in the decades to come.** While all available alternative fuel options are needed to decarbonise EU transport sector, conventional biofuels are already contributing with no systemic or fleet change required in the case of E10 blend. In the future, under the right conditions, the combination of renewable electricity-based, biofuels and other low-carbon solutions will curb the current high level of GHG emissions.
- 2. Policy coherence and stability will help mobilise the investments needed to meet the EU's long-term decarbonisation objectives.** The screening criteria within the Taxonomy regulation should reflect recent Renewable Energy Directive provisions and methodology. All sustainable renewable low-carbon fuels should be able to contribute towards EU climate and renewable objectives under REDII sustainability criteria. Advanced biofuels – such as waste and residue-based biofuels that can save up to 90% of greenhouse gas emissions – are currently not considered sustainable by the Technical Expert Group report.
- 3. Promote the uptake of renewables in transport through an effective carbon pricing policy.** The current method of taxing energy works against EU environmental goals. The EU needs an Energy Taxation Directive that focuses on carbon intensity over volume.
- 4. The EU should continue the progressive deployment of advanced biofuels** by building on existing legislation and industry, supported through a dedicated ramping-up sub-target leading to at least 3.5% by 2030 without multipliers - based on the current feedstock list. This would promote the investor confidence needed to fund innovative, new renewable fuel production.