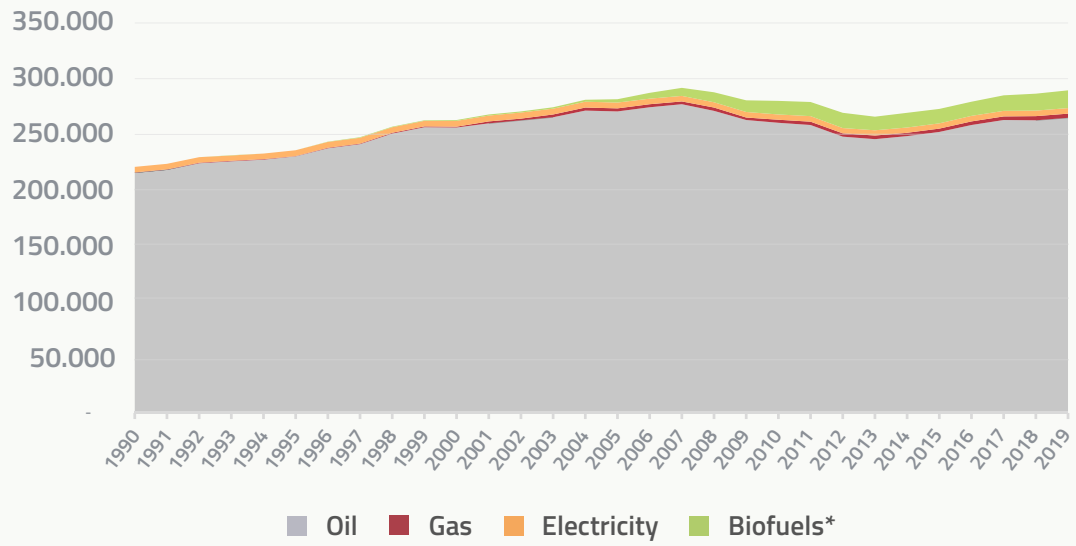
BIOFUELS FOR TRANSPORT

In 2019, the European transport sector only used 6.81%[1] renewable energy, far less than either heating or electricity generation. The European Commission's Climate Target plan suggests that by 2030, this must increase to approximately 24% through further development of renewable solutions including advanced biofuels. Transport, alongside industry and buildings, are the main energy users and source of emissions. Decarbonising both the energy supply and demand is key to achieving climate-neutrality: a rapid shift to low-emission mobility is crucial to achieving the EU Green Deal's ambitious decarbonisation goals. Biofuels – the largest renewable energy source in transport – will continue to be a concrete and viable solution to reducing road, aviation, and waterborne transport emissions.

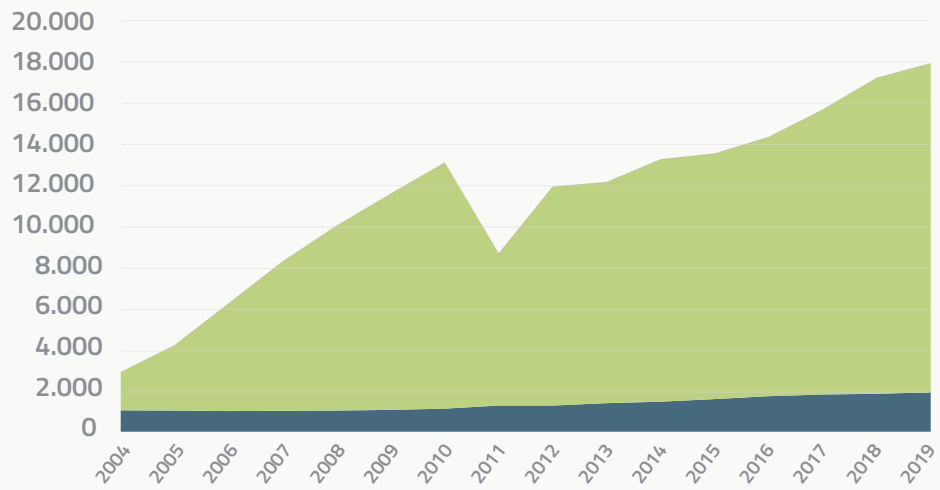
Evolution of the final energy consumption in the transport sector in EU27 (in ktoe) by energy type



*Including biogas.
Source: EUROSTAT

In 2019, despite the growth of biofuels, EU transport is still heavily dominated by fossil fuels – casting doubt on the real impact of the existing renewable energy policy framework and political commitment to decarbonising the transport sector. In 2019, oil represented 92% of the final energy consumption in transport while low-emission and renewable solutions still accounted for a very marginal portion (6.81%[1]). Multipliers, a statistical methodology used to encourage the uptake of renewable energy in transport (primarily favouring electric cars), are creating virtual energy, increasing the real share of fossil fuels. The largest 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.

1. This number is calculated including multipliers as per Renewable Energy Directive



*Evolution of renewable energy consumption in the transport sector * by fuel type in EU28 (Ktoe)*

- Renewable electricity
- Compliant biofuels
- Other renewable energies

*Without multipliers
Source: Eurostat SHARES 2019

Resource Efficiency and Biofuels Flexibility

The output of EU biofuels plants maximises resource efficiency and - during the COVID19 pandemic - demonstrated resilience and flexibility, and underlined the importance of a domestic biofuels industry. Innovative biorefineries process agricultural feedstock (crops, wastes, residues) into renewable fuel that reduces greenhouse gas emissions from road transport; delivers high quality protein, GMO-free animal feed that reduces the need for imported soybean meal; and captures CO_2 for use in beverage applications.

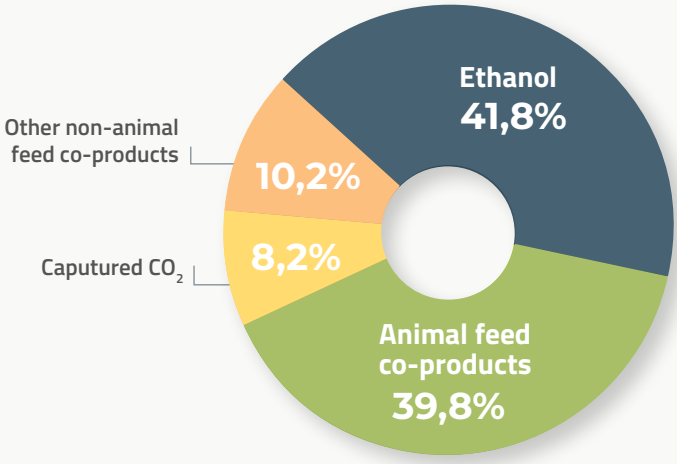
These refineries are part of a circular economy that makes the most sustainable use of land and waste materials and reduces reliance on fossil fuel. Indeed, other important co-products are obtained from ethanol and biodiesel processing like animal feed and captured CO_2. In 2020, several EU-based ethanol producers switched production from biofuels to disinfectant alcohol, playing a key role in overcoming the shortages and fighting the spread of the COVID19 pandemic.

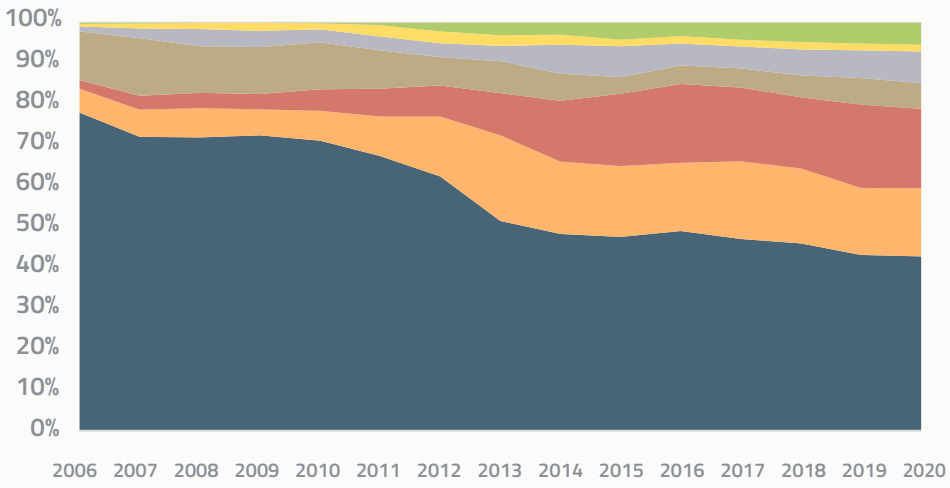
Circular Economy

The principle of the circular economy is well applied by the EU biofuels industry. Indeed, since 2010 the use of waste and residues (such as animal fats and used cooking oil) to produce biodiesel has more than quadrupled, and now represents 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 the circular economy.

Share of mass output of ePURE Members' ethanol plants in Europe in 2020 (in %)

Source: ePURE audited 2020 data





Evolution of feedstock for biodiesel production in EU 27 + UK (in %)

- Rapeseed oil
- Soybean oil
- Palm oil
- Animal fats
- Used cooking oil
- Sunflower oil
- Other (pine oil, tall oil, fatt acids)

Source: USDA and Bioenergy Europe's calculations

Recommendations

1. **Recognise the important role of biofuels in transport decarbonisation and energy system integration.** While all available alternative fuel options are needed to decarbonise the EU transport sector, conventional biofuels are already contributing with no systemic or fleet change required in the case of E10, and with a very strong case to transition to an EU-wide B10 diesel grade.

2. **Increase the share of biofuels target in the Revised Renewable Energy Directive to at least 24%,** or its equivalent in GHG emissions savings. The revision of the Renewable Energy Directive offers the opportunity to set new more ambitious targets for increasing the utilization of renewables including biofuels in transport.

3. **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 the sustainability criteria agreed within the Renewable Energy Directive. Private investment will be key to unlock investment in clean mobility and deliver on higher contribution of renewables in transport.

4. **Promote the uptake of renewables in transport through an effective carbon pricing policy.** The current method of taxing energy works against EU environmental goals. Latest European Commission's proposal rightly focuses on carbon intensity over volume. Yet, leaving the decision to the Member States whether to exempt renewable fuels of the energy taxation or not will lead to an unharmonized European fuel market.

5. **The EU should continue the progressive deployment of advanced biofuels** and waste-based biofuels by building on existing legislation and industry, supported through a dedicated ramping-up sub-target for advanced biofuels leading to at least 3.5% by 2030 - based on the current feedstock list in Annex IX. This would promote the investor confidence needed to fund innovative, new renewable fuel production.