Food, Feed & Fuel for EU

Realising the potential of renewable ethanol biorefineries for a more autonomous Europe
In 2022...

...ePURE members’ bioethanol reduced GHG emissions by 78% compared to fossil fuel

...ePURE members produced 5.9 million tonnes of food and high-protein animal feed – more food and feed than fuel

...ePURE members produced 0.8 billion litres of non-fuel alcohol for use in hand-sanitisers and other applications

...ePURE members captured 1.1 million tonnes of biogenic CO₂

EU ethanol biorefineries...

1. **...reduce CO₂ emissions in transport**
   
   Bioethanol is a sustainable fuel alternative that reduces GHG emissions from petrol and hybrid cars and is the most available and affordable alternative to fossil fuels. Since internal combustion cars will remain in the majority on EU roads in 2030-2040, bioethanol helps the EU meet its climate objectives in a socially inclusive manner.

2. **...support European farmers and boost food security**
   
   EU biorefineries convert multi-purpose crops and agricultural waste from European farmers into renewable fuel, high-quality animal feed and food and other valuable by-products. Since the EU currently depends on imports of high-protein animal feed, it would benefit from greater production of domestic feed from these ethanol biorefineries. This ensures robust markets for European farmers and boosts EU energy independence and food security.

3. **...lessen Europe’s dependence on imported oil**
   
   EU transport is still more than 92% reliant on fossil oil. Sustainable biofuels such as renewable ethanol are the most immediate, cost-effective and socially inclusive way to reduce this dependence. On top of its proven GHG-emission-reduction performance, renewable ethanol is a strategic asset that contributes to EU energy independence.

4. **...complement strategically vital European industries**
   
   Along with renewable fuel, food and animal feed, ethanol biorefineries also produce alcohol for industrial, medical and beverage applications, as well as biogenic CO₂ for fizzy drinks, plant greenhouses and the future production of e-fuels.
The EU approach to emissions-reduction should be open to all technologies

Europe can’t afford to bet on electrification as the only solution for reducing emissions from cars. That’s not just common sense, it’s also the finding of the European Court of Auditors, which in a 2023 report warned against the current EU strategy of focusing only on electric vehicles, which will lead to over-reliance on scarce resources needed for batteries. A more pragmatic approach would make the best use of existing technologies that reduce emissions now, work in existing infrastructure, and preserve citizens’ purchasing power and freedom of mobility. EU renewable ethanol, which reduces GHG emissions by more than 78% compared to fossil fuel, is just such a solution.

When the EU revisits this policy in 2026, it should measure all technologies by their actual life-cycle emissions and create more flexibility to include solutions that work.

All CO₂ neutral fuels should be recognised for current and new vehicles after 2035

In the coming months, the EU will clarify its definition of CO₂-neutral fuels. This is important because even with the recent market growth in sales of battery-electric vehicles, Europeans continue to buy mostly petrol and hybrid cars. De-fossilising these cars with carbon-neutral liquid-fuels is vital. Innovations in production are already increasing the GHG-savings score of RED-compliant renewable ethanol, in some cases to more than 90% compared to fossil fuel. More countries could adopt higher blends of ethanol as the standard petrol, making an immediate impact on transport emissions. A socially inclusive transition to carbon neutrality should empower all European citizens, not just those who can afford new technologies, and all countries, not just those that can afford new infrastructure.

All RED-compliant renewable ethanol should be included in the definition of CO₂-neutral fuels, providing alternatives needed alongside electrification to reach ambitious EU targets.

The EU approach to bioethanol should be consistent and coherent in all legislation

The revised RED II confirms the sustainability of bioethanol but other EU legislation in ‘Fit for 55’ – such as ReFuelEU Aviation, FuelEU Maritime and the Energy Taxation Directive – marginalises or even prohibits the contribution of these sustainable biofuels to achieving climate goals. Instead of this patchwork approach to biofuels, Europe needs a coherent and consistent EU policy approach that promotes investor confidence. Otherwise, the EU risks losing out on new innovation and investment to other countries with more pragmatic approaches to biofuels legislation.

Fit for 55 legislation and future policies should be consistent with the revised RED, which confirms the sustainability of crop-based bioethanol.
The EU should encourage transformation of biogenic CO₂ into a valuable resource

As both the IPCC and the European Commission have highlighted, the benefits of capturing and re-using biogenic CO₂ and recycling it in the production of advanced synthetic fuels, chemicals, polymers must be fully recognised. Carbon Capture and Utilisation (CCU) requires a stable regulatory framework and incentivisation. To foster such investments in European biorefineries, for example, the EU should safeguard the emission credits allowed to biofuels operators capturing biogenic CO₂ from the production process. This would maintain the incentive for ethanol producers to invest in CO₂ capture while giving them the flexibility to either claim GHG credits from the capture or sell it to producers of chemicals or renewable fuels of non-biological origin such as hydrogen or e-fuels.

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