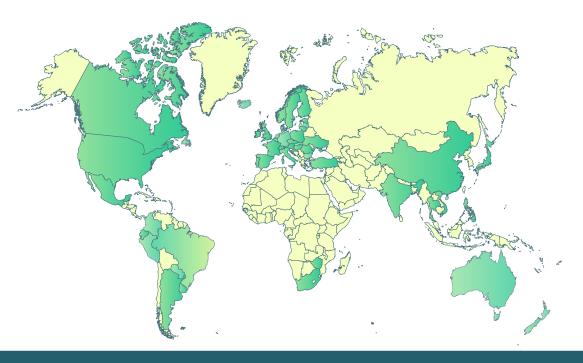
WHY ARE WE PART OF THE SOLUTION?

ETHANOL

Transport is responsible for about ¼ of global greenhouse gas emissions (GHG).

There is no single solution to reduce emissions. Urgent measures and complementary solutions are needed. Ethanol as a decarbonisation tool: present in more than 50 countries, which account for around 75% of the world gasoline/petrol market.

COUNTRIES WITH ETHANOL IN THEIR TRANSPORT MATRIX*



Argentina | Australia | Austria | Belgium | Brazil | Bulgaria | Canada | China | Colombia | Croatia | Czechia

Denmark | Ecuador | Estonia | Finland | France | Germany | Hungary | Iceland | India | Ireland | Italy | Japan

Latvia | Lithuania | Luxembourg | Mexico | Netherlands | New Zealand | Norway | Paraguay | Peru | Philippines

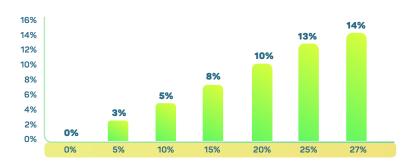
Poland | Portugal | Romania | Slovakia | Slovenia | South Africa | Spain | Sweden | Switzerland | Thailand | Turkey

Ukraine | United Kingdom | United States | Uruguay | Vietnam | Zimbabwe

* i) Countries with nationally-approved blending or blending mandates at regional, city or provincial level; ii) Countries with ethanol consumption without mandates.

ETHANOL BLENDING IN GASOLINE/PETROL AND THE REDUCTION OF GHG EMISSIONS

Reduction of GHG emissions compared to the use of gasoline/petrol without ethanol



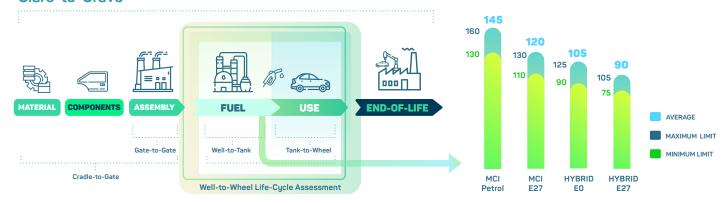
To fuel sustainable mobility, we need to continue investing in more efficient vehicles, new technologies. And low carbon fuels.

Ethanol mixed with gasoline/petrol reduces fuels' carbon footprint. Combined with more efficient vehicles, this can bring additional benefits in terms of emissions when considering the entire life cycle of the product.

Life cycle analysis in the transport sector

GHG emissions from Well-to-Wheel (gCO2eq/km)

Clare-to-Grave



Ethanol is an economically viable option, readily available and easy to implement.

ETHANOL EXPANSION ON A SUSTAINABLE WAY:

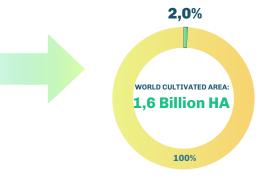
Currently ethanol's market share in the world light fuel matrix is 6%.

What would be the impact on land if the world moves towards E20?

Implementing E20 worldwide would require an increase of 200 billion liters of ethanol, considering current technology, or 32 MILLION HECTARES of sugarcane.

WHAT WOULD BE THE IMPACT OF THIS ADDITIONAL 32 MILLION HA FOR GLOBAL E-20?

The sugarcane ethanol also brings additional benefits such as the reduction of local pollution, promotion of employment, revenue generationand offers an immediate response for pre-existing fleets of vehicles.





About 100 countries already produce sugarcane, in addition to dozens that produce corn and sugar beet.
In upcoming years, 2G ethanol will use waste products for ethanol production.

In the future, the production of green hydrogen and the use of ethanol fuel cells will also power electric vehicles, through so-called bioelectrification.



