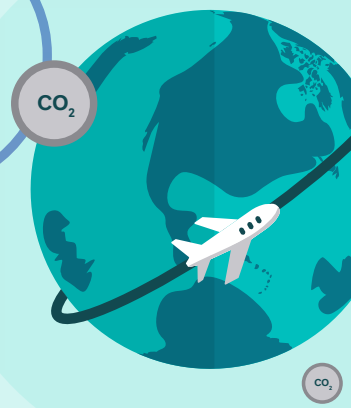
SAF Sustainable Aviation Fuel

01 **Aviation needs innovative solutions** in order to reduce its greenhouse gas emissions.

02 SAF – Sustainable Aviation Fuel – is a 'drop-in' fuel with potential to **cut carbon emissions by up to**

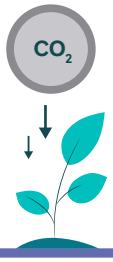
80%



03 Currently regulations state **SAFs can be used when blended with jet fuels, up to a maximum of**

50%

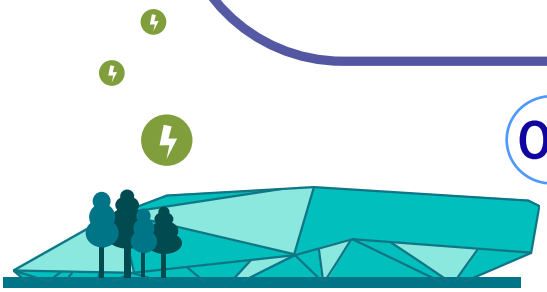
04 **HEFA SAFs are made from food waste fats and oil substances.**



05 **These SAFs have a reduced carbon** output because the plants used to make the cooking oils, absorb carbon from the atmosphere.

06 When this SAF combusts, the carbon returns to the atmosphere, so there is **no net addition of CO_2.**

07 SAF can also be made by combining hydrogen with carbon captured directly from the air. These are called synthetic or e-fuels.



08 If e-fuels are made using zero carbon electricity, such as from a small modular nuclear reactor, they are a promising source of energy.

09 **SAF's require rigorous testing and certification** to ensure the final product meets ASTM jet-fuel specifications.

10 Rolls-Royce engines are fully compatible with

50/50

ratio blended of HEFA SAF fuels.

By 2023 all our Trent engines will be compatible with 100% SAF – they power 40% of the world's long-haul aircraft.

2023 - 100%

SAF fuel compatible.