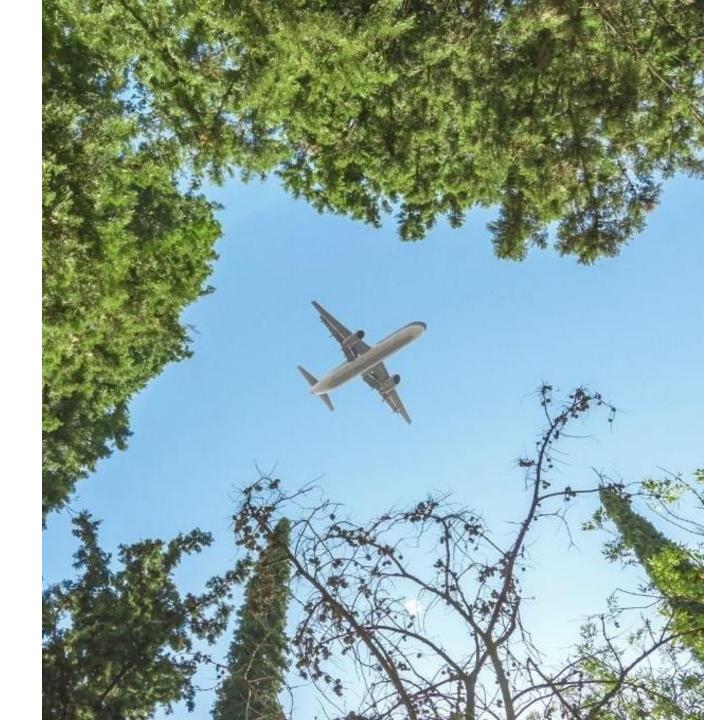


IDées Transition bas carbone

Antoine JAEGLE Stratégie & Développement Aviation, TE

Paris 22/03/2023



TotalEnergies Aviation

A major player with a global presence



280

Number of airlines supplied





Number of employees worldwide

500

300/500 airacrto/airdramas

airports/ airdromes serviced in

 $70_{\text{countries}}$



Leader in

Europe Africa

60

Years of experience

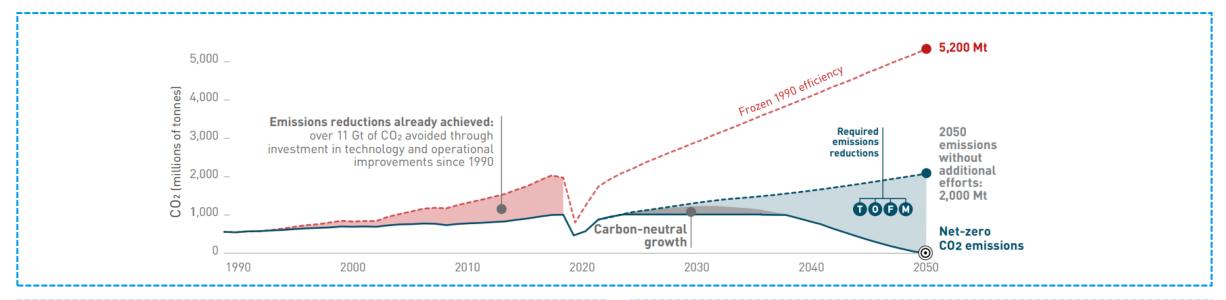


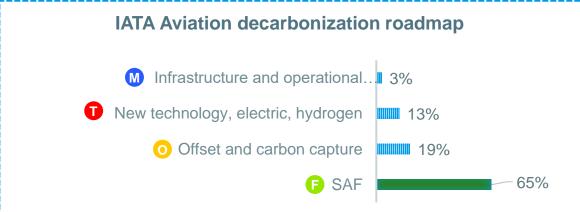
Sector commitment to fly Net Zero by 2050





SAF is the aviation largest decarbonization contributor over the period 2021-2050







Aviation initiatives towards climate change



Stable long term policy measures coupled with voluntary positive initiatives are crucial to scale up SBC demand

Aviation dedicated legislation initiatives

(selected examples)

Legislation already in place | Legislation soon to be in place



1% in 2022, 2% in 2025, 5% in 2030



United States | GHG reduction

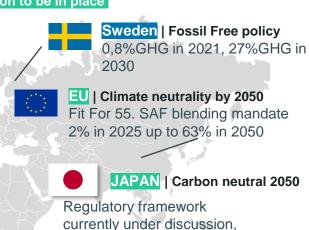
LCFS possibly adopted by other states 0,2% in 2023 to 10.1% in 2030 Recent National Bill / SAF tax credit

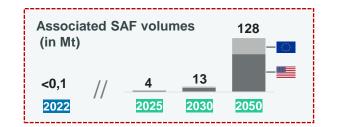


WW | CORSIA⁽¹⁾ on international flights Program started 2021 (voluntary basis)

Carbon Neutral Growth 2020 onwards SAF reduces airlines offsetting requirements

(1) Carbon Offsetting And Reduction Scheme for International Aviation





including a possible 10%

mandate in 2030

Aviation voluntary positive initiatives

(selected examples)

Airlines / Cargo

- SAF Offtakes
- STAR ALLIANCE





• SAF pledge 10% by 2030





● Equity into SAF projects > CATHAY PACIFIC UNITED B BRITISH AIRWAYS







• Investment into green tech. funds. American Airlines

Programs / Alliances

- Corporate programs **DESTE** AIRFRANCE







- Airports' SAF incentives





- SAF Buyers' alliances



• 100% SAF programs AIRBUS AIRBUS ATIR SAFRAN ROILS-Royce







Advocacy alignment
Advocacy alignment



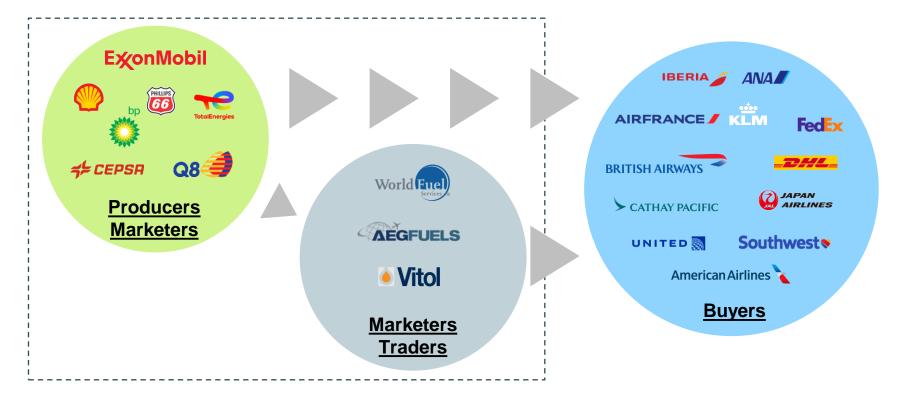




Conventional fossil fuel linear supply chain

A very competitive fragmented global market yet organized by airports







Fragmented global market with large number of players

- Global players: Air BP, World Fuel Services (WFS) and AEG
- Multi-regional players: Major oil companies benefiting from historical positions. Traders seeking regional integration

Driven by Commercial activity

- Passengers, Cargo Large volumes, small margins. Some self-supply
- General aviation, Industry Lucrative

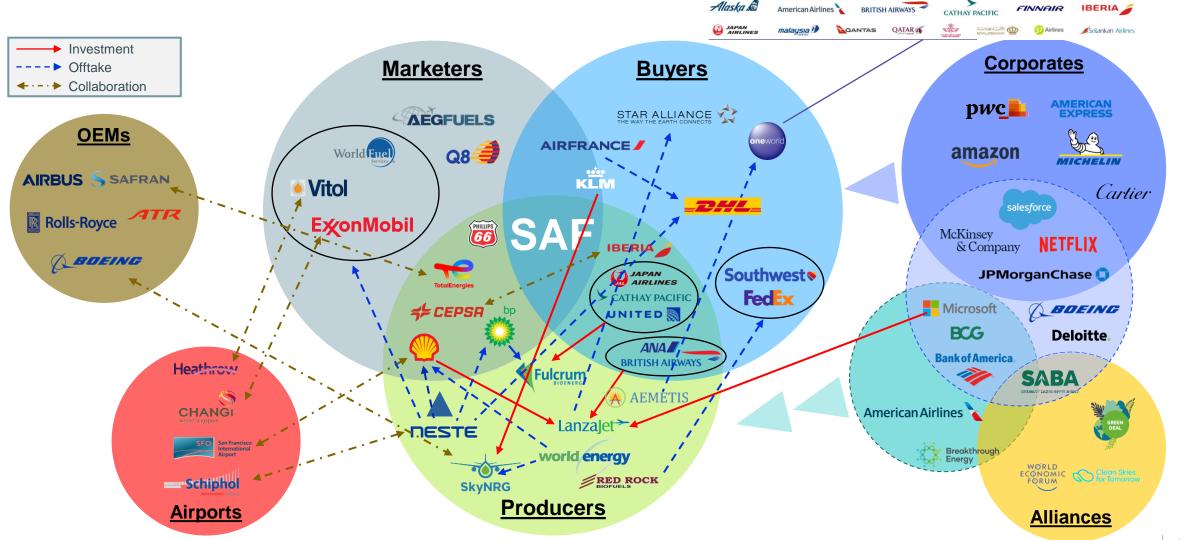
Each airport is a specific market

- Limited number of players
- Usually one on small airports, up to five on large platforms

SAF is completely changing market dynamics



Aviation sector decarbonization strategy centers around SAF



Thank you







09:3