

Sustainable Development at Air France and KLM

Picking up where we left off

Air France and KLM proudly partner with



NORTH EUROPE IN A NUTSHELL

8 countries

3 core tasks: sales, marketing, airport operation

85 colleagues

15 gateways

90 daily flights

6 million passengers per year

700 million Euro revenue

750.000 Flying Blue members

80% connecting passengers

15% market share



AIR FRANCE AND KLM NETWORK UPDATE*

A SNAPSHOT JUST NOW....

- Air France plans to serve close to 170 destinations at the end of summer 2020, i.e. 85% of its usual network.
- On departure from Paris-Charles de Gaulle airport, domestic network activity will reach almost full capacity.
- KLM will once again serve 78 percent of the initially planned number of destinations with more than 3,000 departing flights at Amsterdam Airport Schiphol. As stated above, the number of frequencies amounts to 25 to 30 percent.



**Subject to change*

Sustainable Development at Air France and KLM

CO2 emissions

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The Paris Climate Agreement: maximum of 2° C increase with a preference for 1,5° C

sur les ~~con~~ ^{ventions}

accords ~~climatiques~~ ^{climatiques}
COP21/CMP11

Paris, France



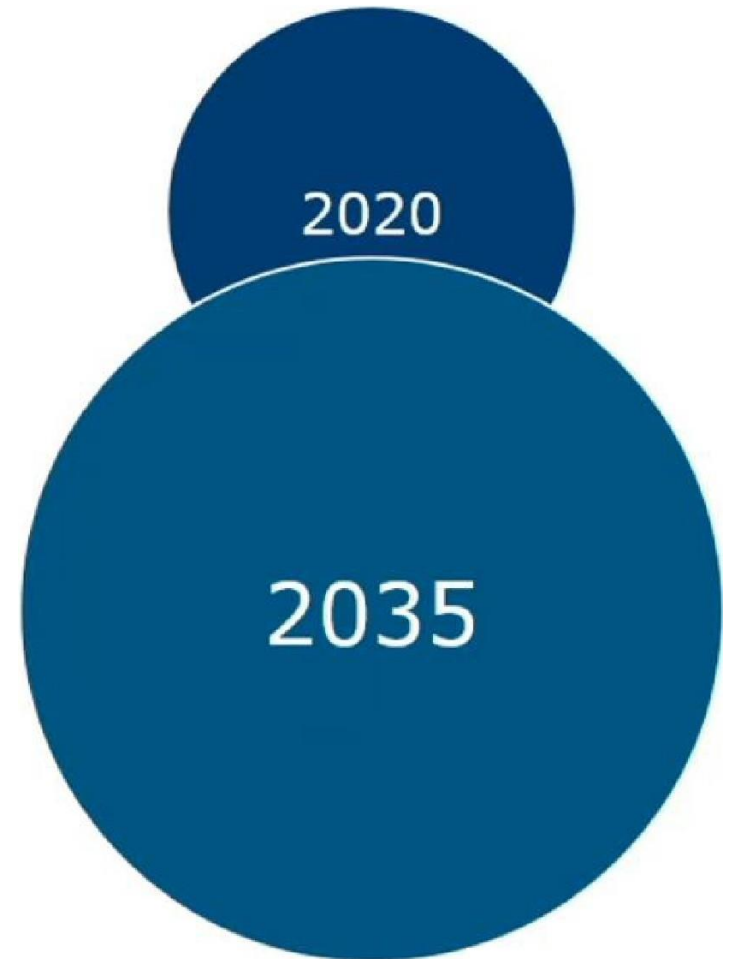
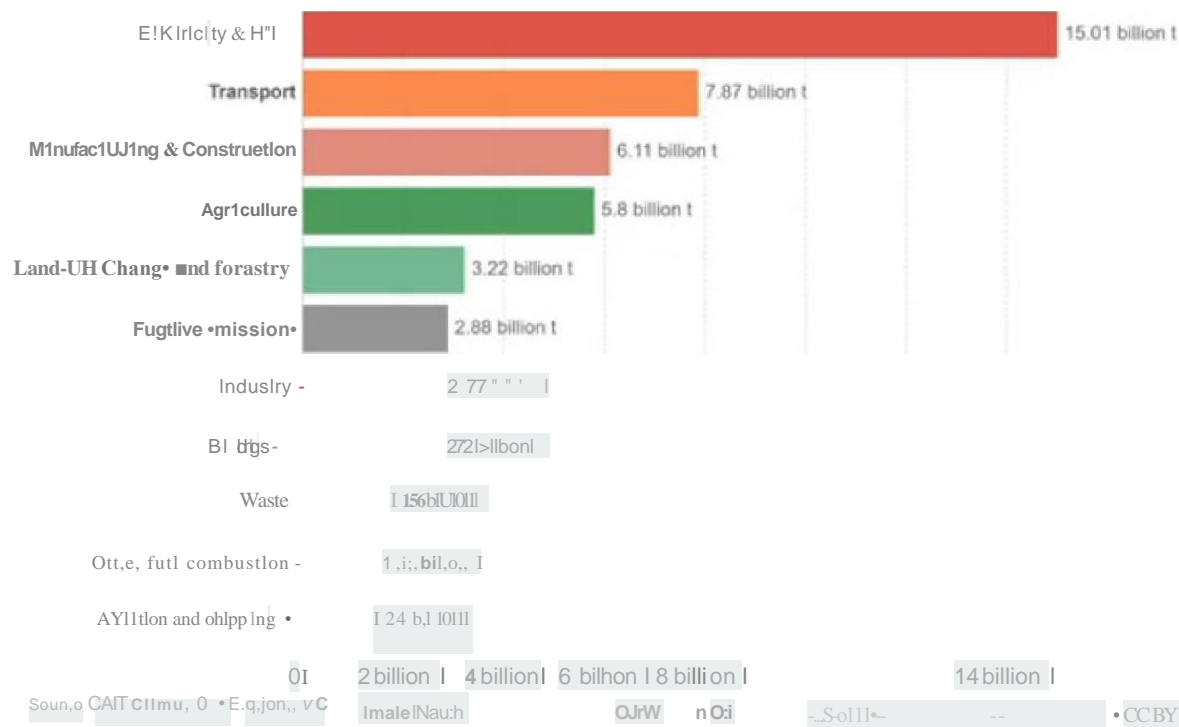
Aviation is responsible for 2-3% of global CO2 emissions

Aviation's share in global CO2 emissions

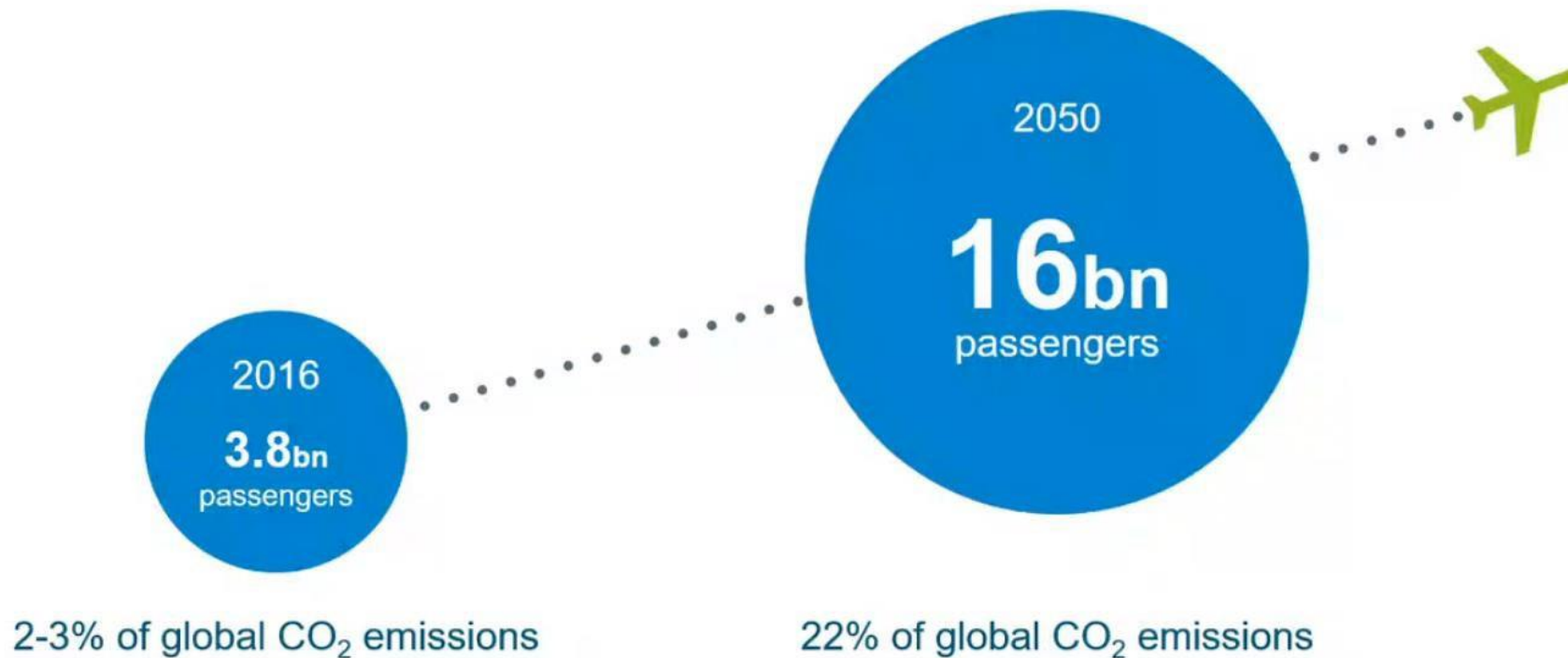
.. is increasing along with demand.

Greenhouse gas emissions by sector World, 2016

Greenhouse gas emissions are measured in tonnes of carbon dioxide-equivalent (CO₂e)

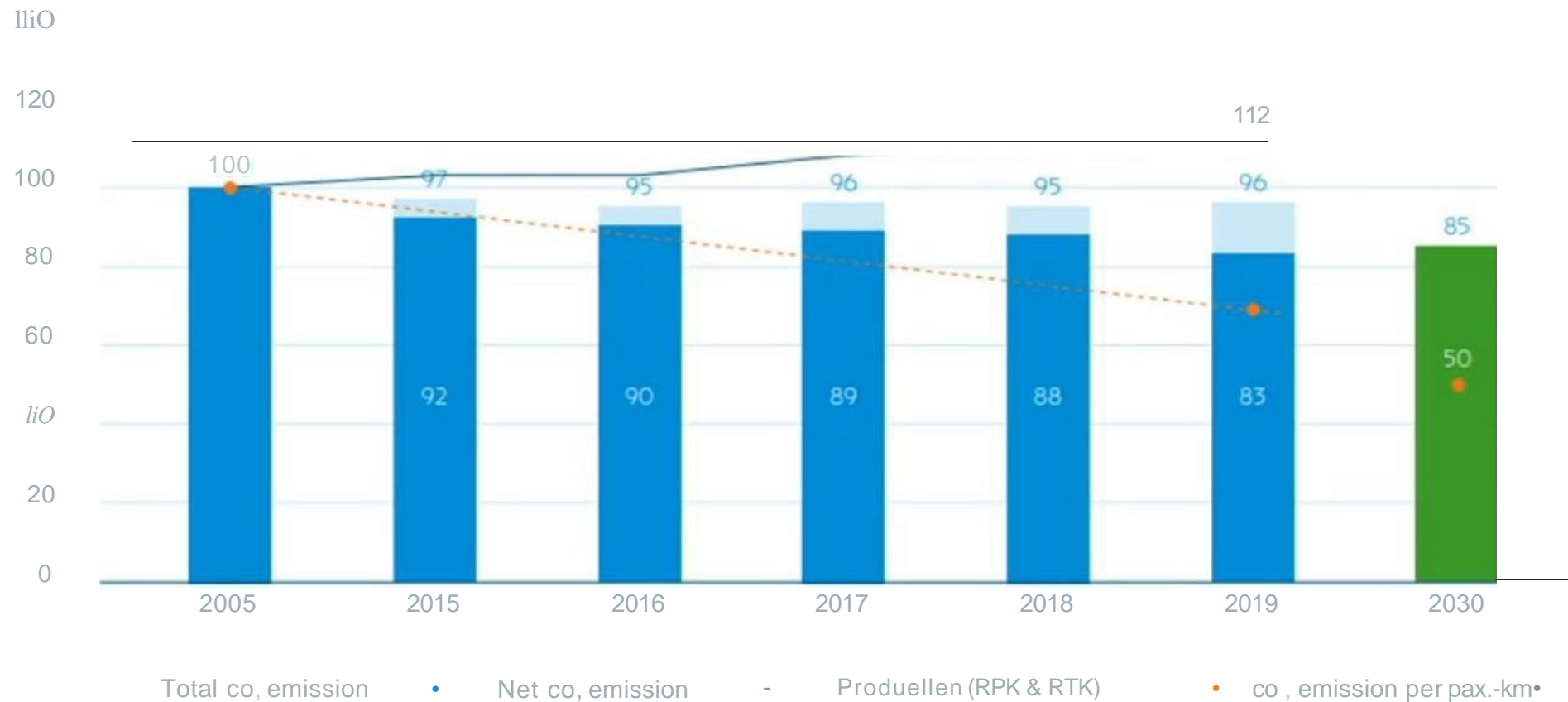


Industry projections | Without timely action, aviation could consume up to 22% of the global carbon budget by 2050



C02 emissions are stabilising while production is growing

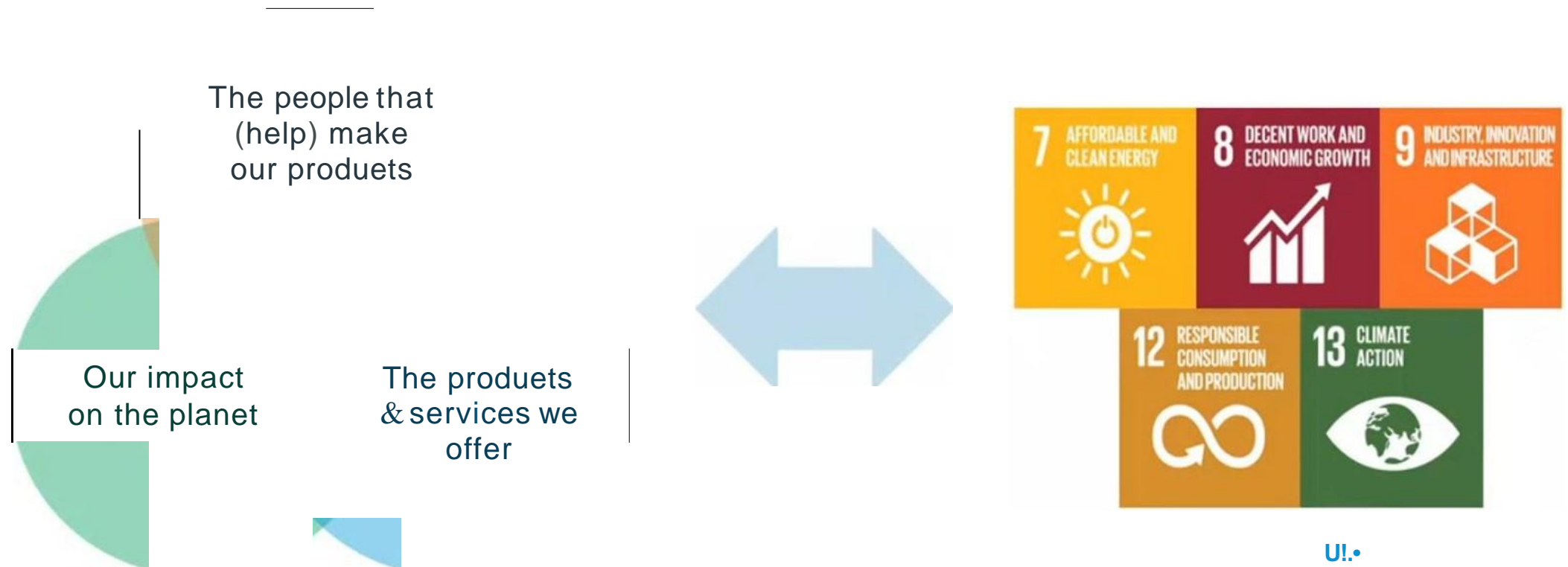
KLM Group CO₂ emissions have decreased with 4% since 2005 while production is growing (index 2005=100)



KLM Sustainability objective

Leading Sustainable Airline

"To lead the industry in delivering the - economic & social - value of network aviation in a sustainable way, by securing the wellbeing of all the people who (help) make our product, by reducing our impact on the planet, and by making our products and services ever more sustainable."



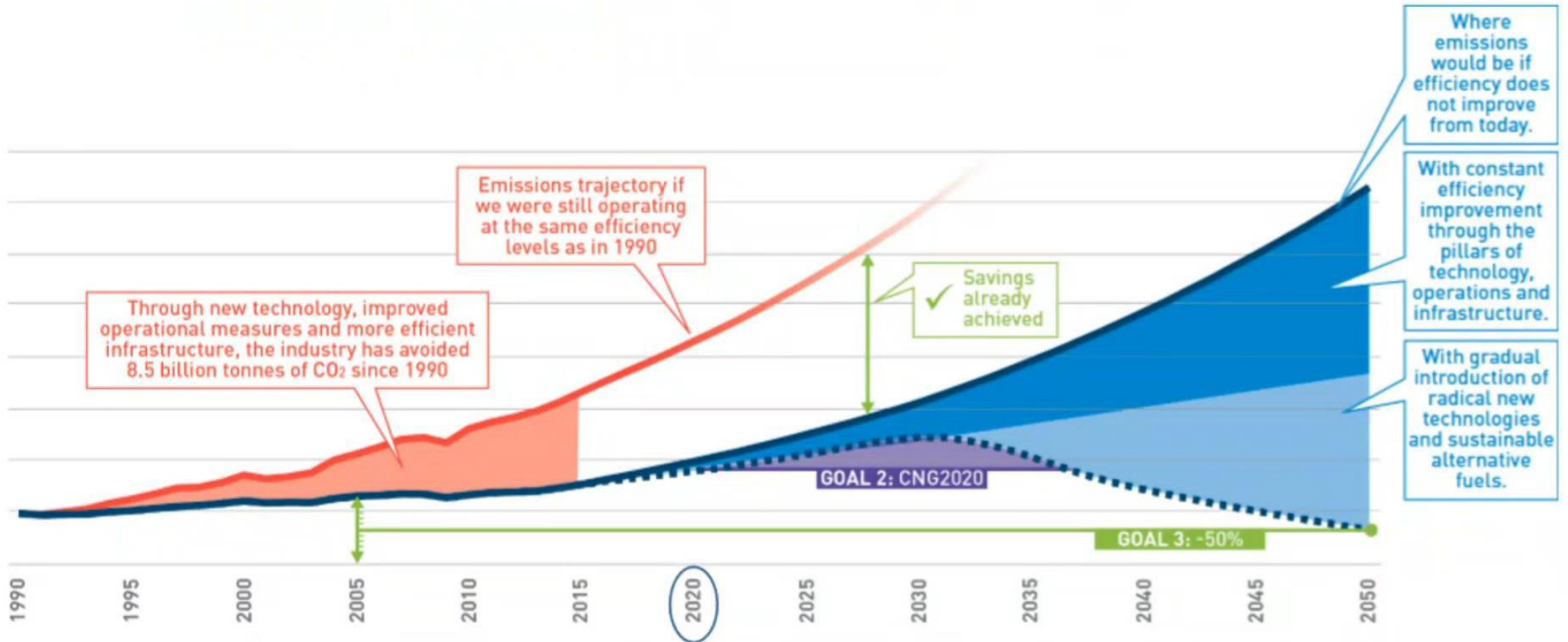
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SAF - reduction

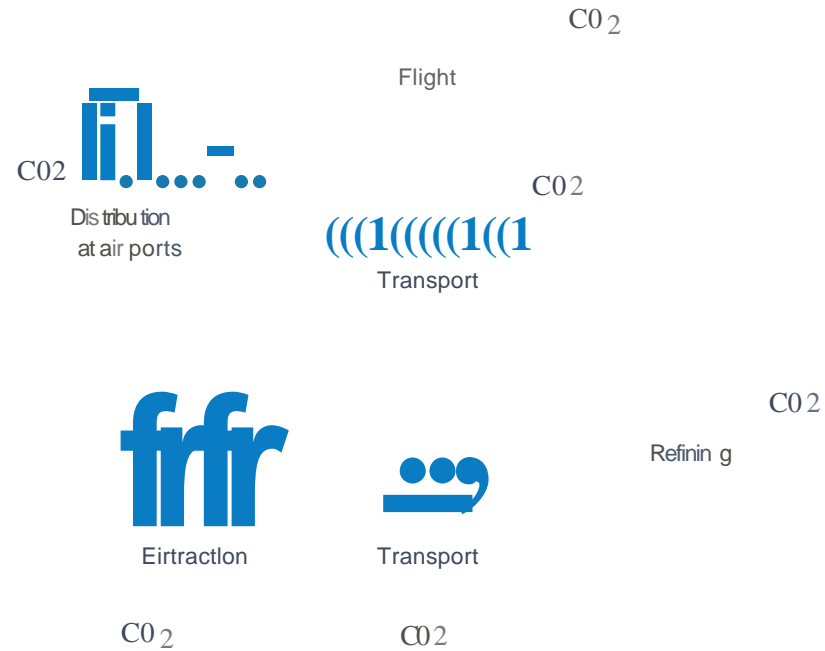
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The role of Sustainable Aviation Fuel (SAF) in decarbonizing the sector

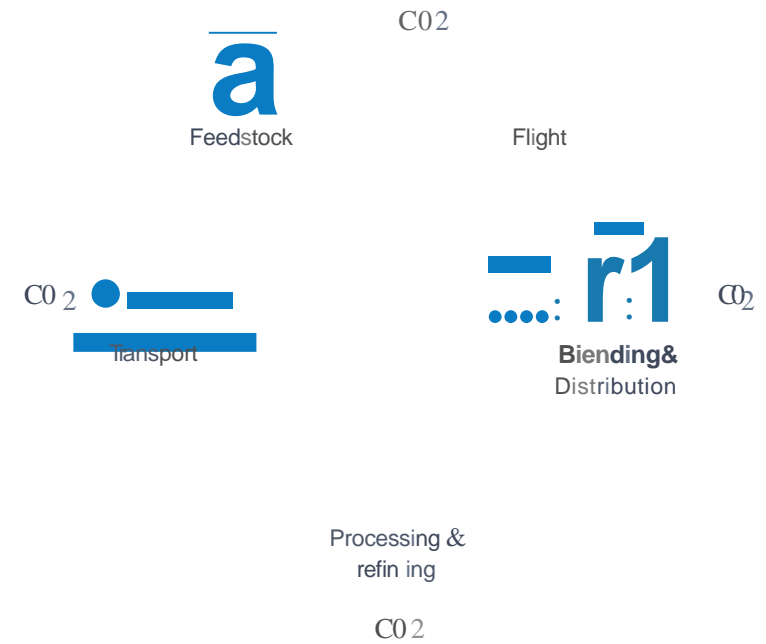


SAF basics | Conventional jet fuel versus sustainable jet fuel production



Conventional jet fuel

Combustion of fossil fuel releases additional CO₂ emissions.



Sustainable jet fuel (SAF)

Combustion of SAF recycles CO₂ emissions that were previously emitted.

SAF feedstocks | To date, 95% of SAF is produced from vegetable oils and waste animal fats using the HEFA process

Current bio-jet feedstocks

Characteristics

- High price (may be higher than the jet price)
- Relatively easy to convert to jet fuel
- Availability of sustainable feedstock is an issue

Examples

Vegetable oils

- Used cooking oil (UCO)
- Camelina oil
- Tobacco oil

Animal fats

- Tallow

Examples of future feedstocks

- Low price
- Significant technical challenges conversion to SAF
- Abundantly available

NOT EXHAUSTIVE

Waste

- MSW
- Flue gasses

Forestry residues

- Tops and branches
- Saw dust

Agri residues

- Bagasse
- Rice husks

C02

- Direct capture
- Point capture

Challenges | Together, we can and need to overcome challenges now to grow the market for SAF and reach climate goals and reach climate goals

PRICE

There is a significant premium over conventional jet fuel

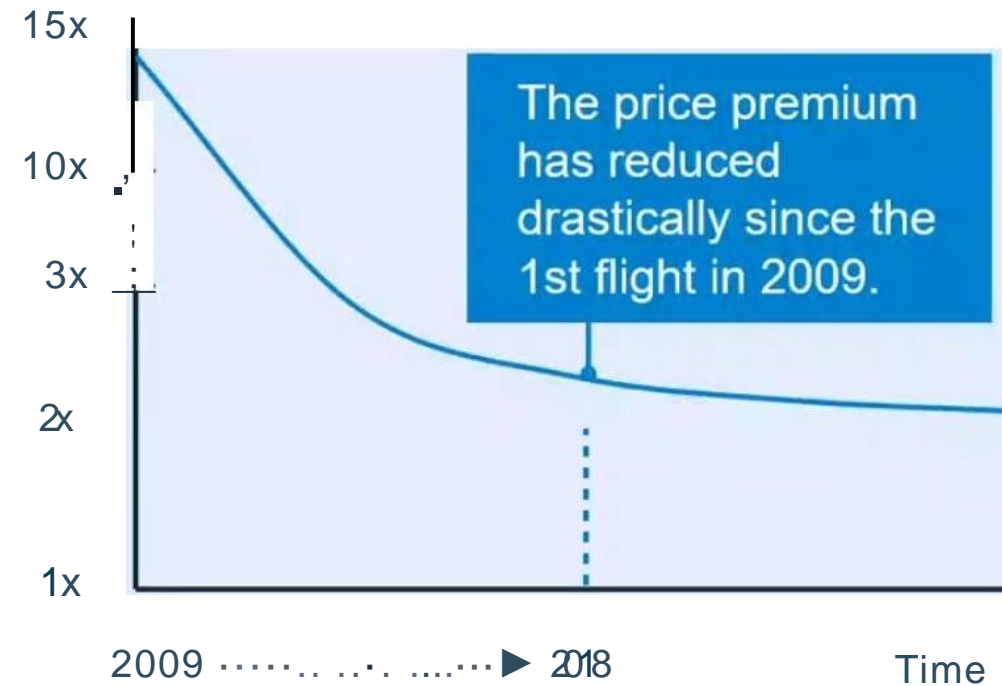
POLICY

Stable, effective and supportive policies are still lacking

SUPPLY

Scale is needed to create economies of scale and further reduce the premium

SAF premium over conventional jetfuel



Sustainable Development at Air France and KLM

Do you really need to fly?

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Fly Responsibly

Er du virkelig nødt til det?

Skulle måske være værd at spørge sig selv. Når man er på ferie, er det nemt at blive på ferie. Men det er vigtigt at tænke på, at man også har et ansvar for at være en gæst. Derfor er det vigtigt at tænke på, at man også har et ansvar for at være en gæst. Derfor er det vigtigt at tænke på, at man også har et ansvar for at være en gæst.

Fly Responsibly

royal dutch Airlines



Når du virkelig er nødt til det.

Vi vil gerne hjælpe dig med at tænke på, at man også har et ansvar for at være en gæst. Derfor er det vigtigt at tænke på, at man også har et ansvar for at være en gæst. Derfor er det vigtigt at tænke på, at man også har et ansvar for at være en gæst.

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