Air France
Horizon 2030
SUSTAINABLE DEVELOPMENT COMMITMENTS
#AFTAKECARE
For Air France, travel brings people together and promotes an openness to the world. The company aims to offer everyone — both current and future generations — a responsible and totally safe travel experience. This is why Air France is committed on a daily basis to reducing its environmental impact and offering its customers a responsible travel experience. But our planet will not wait! Air France is therefore stepping up its commitments and is setting its new objective for 2030 to reduce its CO₂ emissions by 50% per passenger/km compared to 2005. Air France is therefore stepping up its commitments and is setting its new objective for 2030 to reduce its CO₂ emissions by 50% per passenger/km compared to 2005.

HORIZON 2030

-50% CO₂ emissions per passenger/km compared to 2005.

Carbon neutrality of our ground operations.

Reduce non-recycled waste by 50% compared to 2011.

4 MAIN WAYS

REDUCING OUR CO₂ EMISSIONS PAGE 4

OFFSETTING OUR CO₂ EMISSIONS PAGE 6

RECYCLING, REDUCING AND LIMITING WASTE PAGE 8

INVESTING IN RESEARCH AND INNOVATION FOR CREDIBLE AND SUSTAINABLE ALTERNATIVES PAGE 10
A lighter aircraft, less CO2 emissions

The lighter an aircraft is, the less fuel it consumes. For several years, Air France has been implementing concrete and sustainable actions to make each flight lighter.

- 1 kg less in all the aircraft in the fleet represents a saving of about 69 tons of CO2 every year.
- The latest-generation aircraft ordered by Air France are made of lighter materials. The A350 is made of materials up to 67% lighter (53% composites and 13% titanium).
- Seats, baggage compartments and tableware are lighter. On board the Airbus A350, for example, the Premium Economy seat is 13 kg lighter, which helps to reduce CO2 emissions. The tableware in the Business cabin is lighter as some items are made of melamine, representing a reduction of 15 kg on board a Boeing 787.
- 6 million fewer magazines and newspapers on board Air France flights, saving nearly 940 tonnes of paper per year, which corresponds to 3,000 tons less CO2 per year.
- All pilot documentation is digitized. That’s 23 kg less on each flight.

The fuel plan and eco-piloting, a more eco-friendly way to fly

Air France’s fuel plan covers all sectors of the company. Flight operations have a key role to play in making the company an environmentally responsible player in the air transport industry, with flight safety as its absolute priority.

There are 3 ways of contributing to this

- Fleet renewal with the latest-generation aircraft
- The actions undertaken over the past 6 years to significantly reduce aircraft fuel consumption:
  - optimization of the on-board mass (lighter seats, digital press, digital pilot documentation, etc.);
  - optimization of aircraft performance: testing new engine washing procedures, innovation partnership on aircraft paint;
  - improving our efficiency: optimizing fuel efficiency and route choices.
- The practice of eco-piloting, with for example: taxiing with one or two engines running on the runway.

A 3% saving in consumption was achieved. Today’s objectives are to reduce our consumption by an additional 1 to 2% by the end of 2021.

Electric power for ground operations

The replacement of the diesel engines of 12 conveyor belt vehicles with electric motors, with a new type of lithium-ion batteries from recycled car batteries will allow to reduce CO2 emissions by 3 tons per year and per conveyor belt.

Air France is also reducing its electricity consumption notably through more modern equipment, the use of sustainable energy for buildings, offices and warehouses and the integration of this objective in supplier contracts.

For example, at Valbonne, an energy-efficient system has enabled the database center to reduce its annual electricity consumption by 2% and reuse the energy to heat the buildings.
Compensation for corporate customers

Via a compensation offer from Air France-KLM, corporate customers will be able to opt for voluntary compensation for their flights. They will be able to offset these emissions by acquiring carbon credits to finance major certified reforestation projects.

Supporting tree planting

Trip and Tree by Air France is a programme that allows customers to do something for the planet and reduce the environmental impact of their trip. When purchasing an air ticket on www.airfrance.com, volunteer customers can make a donation of the amount of their choice to finance one of the tree planting projects around the world.

Make a donation

Tree planting can be used to protect biodiversity, help populations, store carbon, enrich the soil and replenish water. With Trip and Tree, Air France aims to create the first community of eco-travellers.

Offsetting 100% of CO₂ emissions on domestic flights

As of January 1, 2020, Air France undertakes to offset 100% of the CO₂ emissions generated by its domestic flights. This compensation will take the form of participation in projects certified by recognized organizations.

Carbon-neutral flights throughout metropolitan France. On a daily basis, this represents:

+450 flights
+57,000 customers concerned
Business or leisure travellers, companies or employees of the Air France Group will be able to travel throughout France in a carbon-neutral way.

IN FIGURES

+100,000 trees planted
7,550 donors in 6 months
8 projects on 4 continents

Regulatory compensation

Air France offsets its greenhouse gas emissions through European and global emissions trading schemes common to the entire industry.

EU-ETS, emissions trading scheme — since 2012, Air France has been subject to the application of the European greenhouse gas emissions trading scheme (EU-ETS) whose scope is limited to intra-European flights until end-2023.

CORSIA, a global carbon offsetting scheme — as from 2021, for international flights, airlines have agreed to maintain their greenhouse gas emissions via a global carbon emissions offsetting scheme for international aviation (CORSIA).
Selective waste sorting
Air France is changing its behaviour. Since October 2019, selective sorting on board its aircraft concerns:
- Plastic: bottles
- Cartons: Treta Pak packaging
- Aluminium: cans
- Glass: wine and champagne bottles.
All these materials sorted by cabin crew are then handled by the service provider Servair at Paris-Charles de Gaulle and Paris-Orly and recycled in France or Europe.

Soon to be recycled!
7 million plastic bottles
3 million cartons
6 million cans
loaded on board our aircraft every year.

Wage war on plastic
A reduction of
1,300 tons of single-use plastic used on board each year as from end-2019, i.e. 210 million single-use plastic items replaced by sustainable alternatives.

By the end of 2019, Air France will replace on board all its flights
100 million plastic cups with paper cups.
85 million plastic items of cutlery with items manufactured and packaged from biosourced materials.
25 million plastic sticks with wooden stirrers.
The company has not used plastic straws since 2015, representing
1.3 million fewer plastic items.

Since 2018 Air France has also been offering the “Bon appetit” bag to replace the plate and cutlery kit used for the second long-haul meal.

Stop wastage!
The in-flight offer on Air France flights is adapted to consumer trends. Depending on the duration of the flight and its schedule (night flights, for example), the catering service on board is adapted.
New digitization innovations also make it possible to better forecast customer demand, with pre-selection of the hot dish in the Business cabin deployed in early 2020.
In this way, with simple and common sense measures, as well as technological developments, Air France is able to reduce food waste without compromising on the customer experience promise.

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The all-electric aircraft

Air France supports the French Aeronautical Federation in purchasing the Pipistrel Alpha Electro, a very light, all-electric single-engine two-seater.

The company is lending the expertise of its mechanics and technicians to this new aircraft.

Biofuel, the future of fuel

Objective

Create the roadmap of a future biofuel industry for a responsible, economically viable and sustainable French aviation industry.

To this end, Air France wishes:

- Promote the emergence of a French aviation biofuel sector in a progressive way with support mechanisms:
  - by developing a circular economy dynamic within the territories to promote job creation;
  - for a biofuel that does not compete with the food chain and whose production cycle meets strict sustainability criteria;
  - with incentives at a national, European and international level.
- Progressively introduce biofuel for its flights.

The aviation sector faces technological challenges for which massive research and development resources are required. Air France is committed to this initiative and wishes to develop solutions for a sustainable aviation sector.

Involvement in biofuel testing

- **2013**
  - “Joining our Energies – Biofuel Initiative France” flight at Le Bourget Air Show.

- **2014-2016**
  - Launch of the “Lab Line for the future” programme, involving the testing of 76 flights powered with 10% biofuel on Toulouse-Paris and Nice-Paris routes.

- **2017**
  - Signature of an innovative public-private partnership “Green Growth Commitments” (ECV) with the French Ministry for Solidarity and Ecological Transition, the French Ministry of Transport and the French Ministry of Economy and Finance, and Airbus, Safran, Suez and Total to promote the emergence of sustainable aviation biofuel industries in France.

Biofuel can reduce CO₂ emissions by up to 80%