
ESG in the Air



By [L. Felipe Monteiro](#) and [Gabriel Szulanski](#), INSEAD

How the airline industry is riding a transformation to sustainability.

A lack of passengers due to the global pandemic is not the sole crisis the airline industry faces. Carbon-based fuels propel the entire industry, damaging the environment. When people ask what they can personally do to reduce their carbon footprint, one of the first suggestions is to [fly less](#).

Pressure on airlines mounts as surely a flight-free future is not an option. Considering its perception in the climate crisis, how can the airline industry remain relevant? And what kinds of steps should it take to ensure that flying no longer takes the same toll on the planet?

Starting with individual companies and now at the industry level, commercial airlines are working towards incorporating ESG in a wholesale fashion.

[GOL](#) Airlines, the first low-cost Brazilian airline and now the country's largest carrier, centres its strategy around the [net-zero](#) goal. From its founding, the airline was driven by innovation and quickly became the country's leading airline, as Javier Gimeno, José Santos, Betania Tanure, Anne-Marie Carrick and Professor Monteiro describe in a [case study](#). In a recent interview, Celso Ferrer (GEMBA '18), GOL's chief operating officer, explained how the

transformation of the airline industry is based on sustainable principles and how ESG must permeate an organisation.

How the airline industry contributes to net zero

In October 2021, the members of IATA – the airline industry’s international trade association – passed a resolution committing to net-zero carbon emissions from their operations over the next 30 years. [Willie Walsh](#), IATA’s Director General, commented: “Achieving sustainable global connectivity cannot be accomplished on the backs of airlines alone. All parts of the aviation industry must work together within a supportive government policy framework to deliver the massive changes that are needed, including an energy transition.”

This is the “first big step the industry is taking,” Ferrer explained. “Up until now, net zero was an individual goal of some airlines.”

According to the [IATA Net Zero](#) project, the four key elements of the industry emissions reduction strategy are sustainable aviation fuels (SAFs), new technologies, improved operational efficiency and carbon offsetting.

SAFs

[Sustainable airline fuel](#) is created from renewable biomass and waste resources that may deliver the performance of current jet fuel but with a fraction of its carbon footprint. It is now possible for commercial jets to fly on blends of SAFs and petroleum jet fuel. In [Rotterdam](#), for example, a new Shell plant will use the only commercially viable way to transform materials like recycled cooking fats into jet fuel: hydro-processed esters and fatty acids (HEFA) process, reducing emissions by around 80 percent.

Using HEFA to create fuel is expensive, however. Getting in front of the cost issue, [Air France](#) recently sent an email to customers to inform them of a SAF-related price increase. Ticket prices went up by €1 to €12, depending on the travel class and destination.

GOL goes a bit further, using local diversity and partnerships to create biomass value chains for SAFs. Sustainable regional development is another factor that the Brazilian airline can maximise for new fuels. According to Ferrer, SAFs may represent 65 percent of the firm’s net-zero targets.

A Brazilian-Germany governmental partnership, “Climate Neutral Alternative Fuels” (**ProQR**), began in August 2017. GOL is part of the ProQR project and a member of the advisory board. The project aims to create an international reference model. Currently, the airline sees the need for a national but non-mandatory regulatory framework.

Later this year, **Singapore Airlines** flights will use a blended SAF provided by ExxonMobil. This one-year pilot programme is expected to cut about 2,500 tonnes of carbon emissions.

New technology

Air France is working towards a 15 percent reduction in carbon emissions by 2030 compared to 2005. Its next goal is net-zero emissions by 2050. The €1 billion Air France invests per year in the renewal of its fleet is crucial to meet this. Commercial jets are not the only planes in the fleet; innovative **electric aircraft** are already in service to train pilots.

Airbus, **Boeing**, Rolls-Royce and **GE**, all the major suppliers of the engines and aircraft, are investing billions in innovation. They all understand that their customers – airlines – need more efficient jets.

This industry transformation is a multi-stakeholder effort. Airlines are unable to change if engine producers continue to build the same carbon-fuel consuming planes. This problem requires the whole ecosystem to change, as Walsh said.

Ferrer explained, “ESG is impacting every industry, and it’s no different in the airline industry. In everything we do, we try to have this net-zero target in every meeting we have, with every stakeholder. [Suppliers] feel a lot of pressure to produce new kinds of engines, new kinds of airplanes, maybe even hydrogen planes for 2035.”

Operational efficiency

IATA also has an evaluation system designed to look at the broader picture, not just an airline’s carbon emissions. The IATA Environmental Assessment (**IEnvA**) programme is voluntary, providing environmental management standards for airlines, plane maintenance, ground handlers as well as on-board services.

“Some airports are in discussions to have green slots – only planes with new technology can land,” Ferrer said. “Especially the downtown airports. We are having this discussion here with the downtown airport in Sao Paulo [the second largest airport in Brazil].” Only planes with 20-25 percent fewer emissions will be allowed to land at certain times in certain airports.

Pre-pandemic, the environmental benefits of rerouted flights in Benelux could be up to 40 tonnes of fuel and 150 tonnes of carbon emissions saved **every day**, according to EuroControl. With weather predictions, future flights may be directed on more efficient routes to prevent contrails.

Carbon offsetting

In the current environment, carbon offsetting is the one action **most airlines** have already put into place. **Swiss Air**, for example, uses a platform that enables customers to offset their present and future carbon emissions. Yet, the demand for carbon offset credits has **soared**, because some industries simply mask persisting **polluting behaviour** with carbon credits so much that offsets are selling out.

GOL also supports carbon offsets, with airport posters that have a QR code for passengers to click and pay before they fly. The airline has been a member of the **GHG Protocol** since 2010. It’s a tool that quantifies and manages greenhouse gas (GHG) emissions, originally developed by the World Resources Institute. Over the years, GOL first achieved a silver seal (a complete inventory) and then a gold seal (complete inventory and verified by a third party).

Other solutions to curb the climate crisis are imminent. This month, JAL, the Japanese national carrier, issued the first **transition bonds** in the industry as part of its commitment to incorporate ESG management. These are bonds issued by companies with long-term goals aligned with the Paris Agreement; proceeds from the bonds will be allocated to initiatives that support the transition towards a carbon-free society. Addressing the climate crisis is not about fixing one part of the puzzle, like emissions on their own, it’s about change throughout a firm, throughout an industry.

Commitment to paradise

An absolute jewel of an archipelago, Brazil’s **Fernando de Noronha**, is 354 km from the coast. GOL, as of September 2021, has only carbon-neutral

flights to this unspoilt paradise. **Moss** is a partner in the initiative, assuming the costs of the credits. Customers' carbon offset is paid by GOL; the islands' emissions are reduced by a quarter. Preserving this UNESCO World Heritage site is a shared responsibility.

Ferrer said, "In Europe, governments are taking the lead, but South America and the US are a bit behind." **France**, for example, banned short domestic flights, encouraging travellers to take the train instead.

ESG needs to be "in every meeting" at GOL, in the airline industry and every other industry, Ferrer explained. In the past, a firm may have had a sustainability officer or someone in marketing who was concerned with projecting care for the climate, but the current climate reality means that ESG must be ever present throughout the business.

Accordingly, INSEAD, **ranked 6th in ESG** by the *Financial Times* Business school rankings, is incorporating ESG as a common thread that underpins the MBA curriculum, beginning with the first encounter in the classroom. Business as a force for good means empowering students with tools to help them create a sustainable business reality, a sustainable world, so that future generations can continue to enjoy the wonders of Noronha.

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