

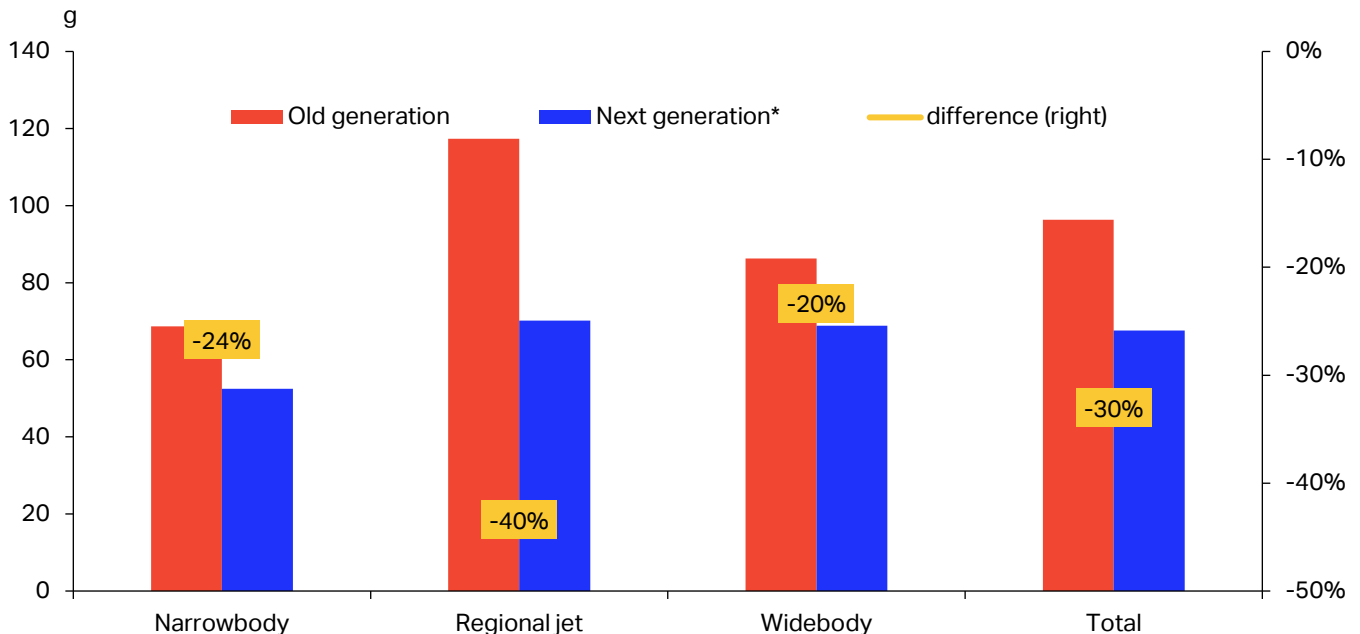


Chart of the Week

14 August 2026

Emissions Penalties Due to Aircraft Delivery Delays

CO₂ emissions per available seat kilometer (ASK), grams



Source: IATA Sustainability and Economics, Eurocontrol SET, Flightradar24, OAG *Aircraft currently in production (e.g. A320neo, 737 MAX, A220, A350, 787, E2). The analysis uses market-class average emissions derived from the EUROCONTROL Small Emitters Tool (SET). Results are presented only at an aggregated market level and are not intended to compare individual aircraft types, manufacturers or operators.

- Fleet renewal is an important decarbonization lever for the air transport industry, but significant delivery delays are slowing progress and forcing operators to use older aircraft with higher fuel consumption. As many as 1,662 aircraft replacements were estimated to be delayed until 2025. Delayed aircraft deliveries impose on airlines the deferral of their fleet renewal. Airlines must then continue to operate older-generation aircraft until they can take delivery of the ordered aircraft. Depending on the type of aircraft, airlines might have to wait up to seven years to receive their order. These delays, caused by supply chain and manufacturing issues, lead to higher fuel consumption and, in turn, more CO₂ and non-CO₂ emissions, adding around USD 3 billion per year to airlines' fuel costs.
- Next-generation widebody aircraft reduce CO₂ emissions per available seat kilometer (ASK) by 20%. For narrowbody and regional jets, the CO₂ emissions reduction is even greater, at 24% and 40%, respectively. The ongoing aircraft delivery delays cause approximately 12 million tonnes (Mt) of additional CO₂ emissions annually, equivalent to 1.2% of total industry emissions or 2.6 million cars. That is double the gain from using all the SAF estimated to be produced in 2026, 2.4 Mt, which avoids about 6 Mt of CO₂ emissions (assuming an average emissions reduction factor of 0.8), or 0.6% of the airline industry's total CO₂ emissions.
- The lack of new aircraft also brings about higher non-CO₂ emissions. New engine technologies, such as lean-burn combustors, emit much fewer nitrogen oxides (NO_x) and significantly reduce non-volatile particulate matter (nvPM). Aircraft delivery delays curtail improvements in air quality and aggravate climate impacts.

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