

Several technologies might help decreasing aviation industry's CO₂ emissions in the 2030-2040 period but significant contribution remains conditioned to a rapid adoption

EMISSION-REDUCTION POTENTIAL FOR SELECTED TECHNOLOGIES WITH EST. MARKET ENTRY IN 2030-2040

R: Regional NB: Narrow Body WB: Wide Body A: Adoption D: In Development

	Technology	Description	Market Segment			Maximum Addressable Emission Reduction (%CO ₂ Emission Reduction)
			R	NB	WB	
Engine Technology	Geared Turbofan Engine	Gearbox between the fan and the compressor; each rotates at the most efficient speed	A	A	D	17% - 22%
	Open Rotor	Unducted fan or propfan that increases engine bypass ratios and fuel efficiency	D	D	D	20%
	High-Pressure Ratio Core Engine	Enhanced efficiency compressor operating at a higher pressure	D	D	A	4% - 9%
New Energy Pathways	Hybrid-Electric Propulsion	Propulsion system that utilises a battery-powered motor and a conventional gas turbine engine	D			1%
Airframe Configuration	Transonic Truss-Braced Wing	Aerodynamic technology that uses a structural wing support to allow for larger wing spans	D	D		4%
Structures	Laminar Flow Control	Aerodynamic technology that maintains the airflow over the aircraft surface allowing drag reduction	D	D		2% - 8%
	Advanced Composites	Decrease in aircraft weight	D	D	D	1% - 3%