Impact of ESG Challenges on Aviation Companies in Pursuit of 2050 Net Zero Goals

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Key Points

ICAO committed to a Long Term Aspirational Goal (LTAG) to achieve net zero CO2 emissions by 2050.

ICAO agreed changes to global offsetting scheme – the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), from 2024.

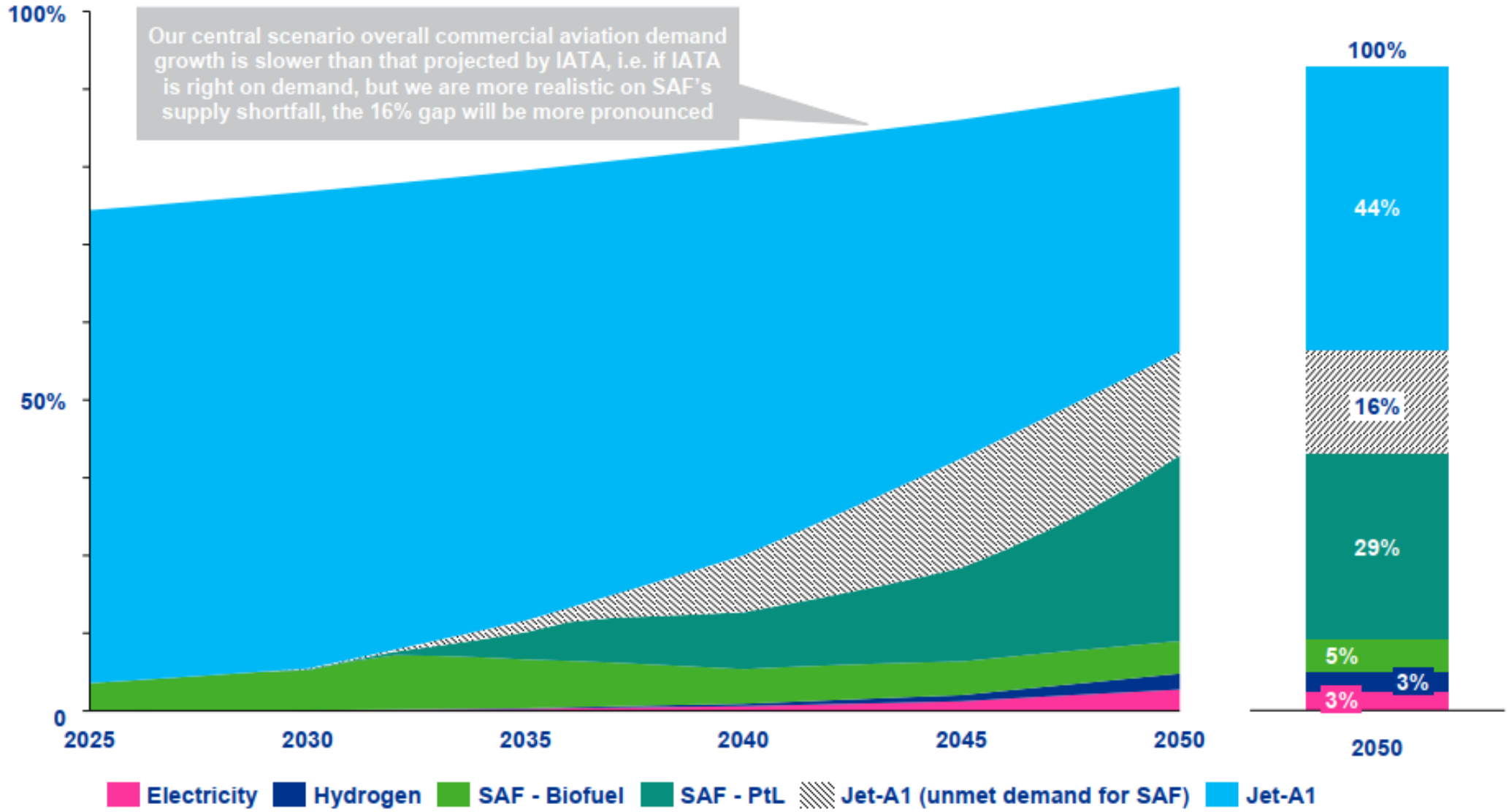
Airlines reduce their emissions and setup their sustainability policies – from recycling to investment in green technologies.

Transitioning to SAF

- Airlines signed offtake agreements with Sustainable Aviation Fuel (SAF) producers to reduce their dependence on fossil fuels.
- ICAO identifies key areas of support for SAF:
  - ICAO council to facilitate capacity building and technical assistance to states for SAF programs
  - Work with stakeholders to define and promote the transition to SAF
  - Facilitate access to financing for infrastructure development projects dedicated to SAF
- ICAO member states
  - Accelerate fuel certification and development of SAF including feedstock production
  - Accelerate of certification of new aircraft and engines to allow the use of 100% SAF

KPMG projected demand for aviation energy type, central scenario

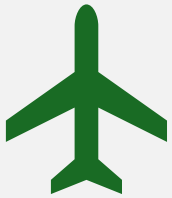
By fuel type as % of total energy required by 2050



Source: KPMG

Lessors Lead the Way

Airlines and leasing companies report their current emissions profile and pathway to net zero.



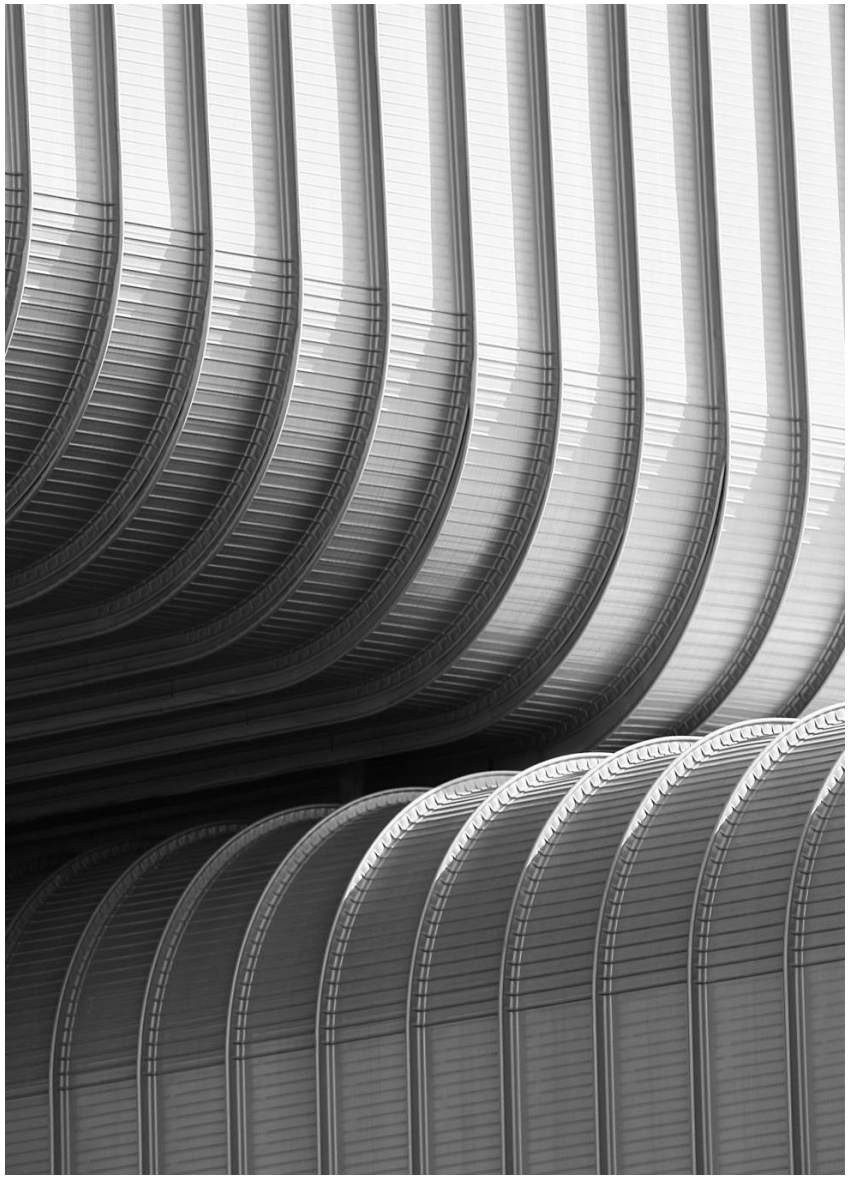
Leasing companies move toward a more efficient and sustainable leased fleet and target to new technology aircraft for short term and long term.

Operational Measures

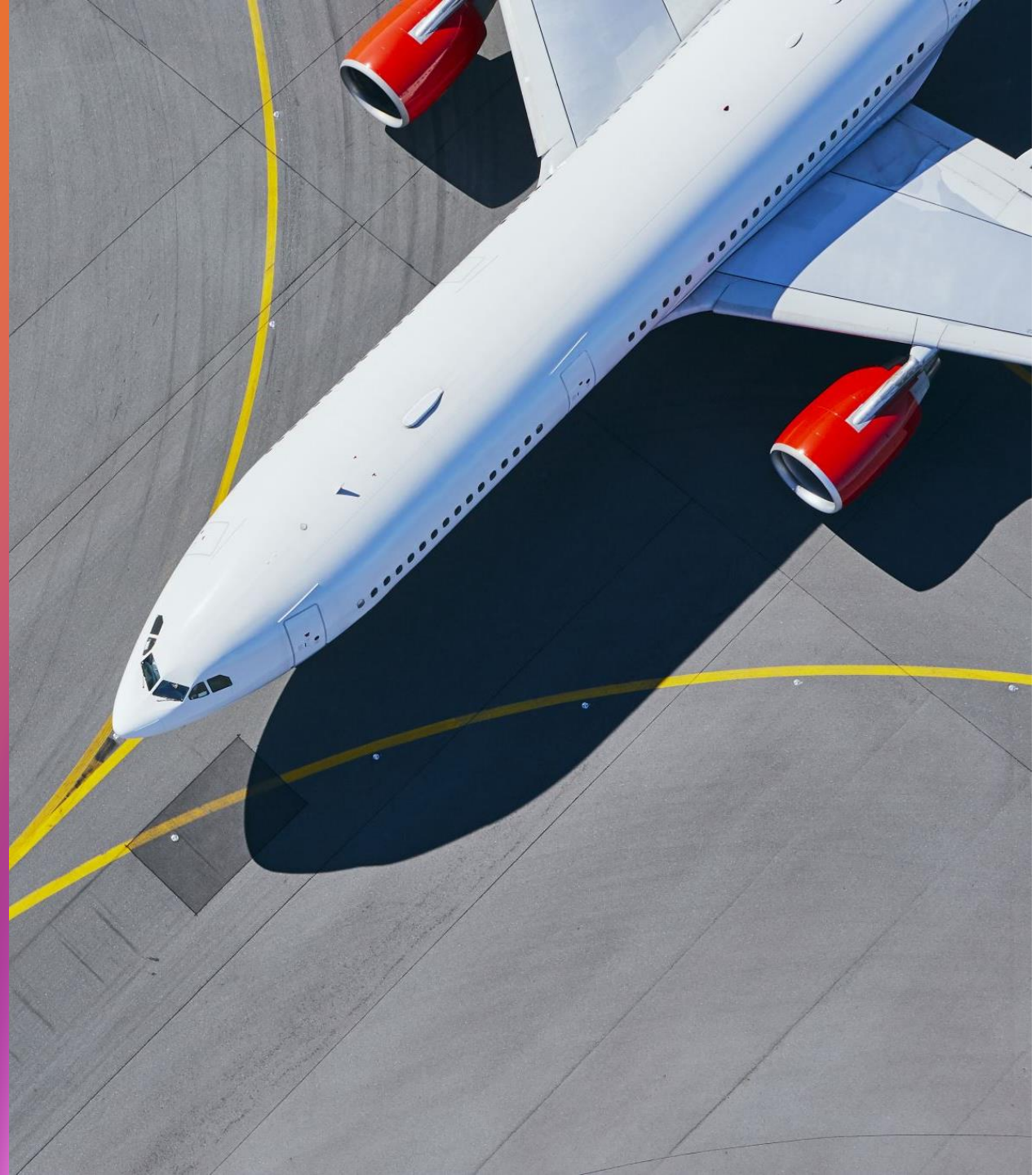
AIRLINES CAN RELATIVELY EASILY ENFORCE INITIATIVES WITHIN THEIR OWN CONTROL.

BOLDER MOVES COULD AFFECT CUSTOMER EXPERIENCES.

OTHER EFFICIENCY EFFORTS ARE DEPENDENT ON COLLABORATION AMONG SEVERAL STAKEHOLDERS, ESPECIALLY TO OPTIMIZE AIR SPACE USAGE.



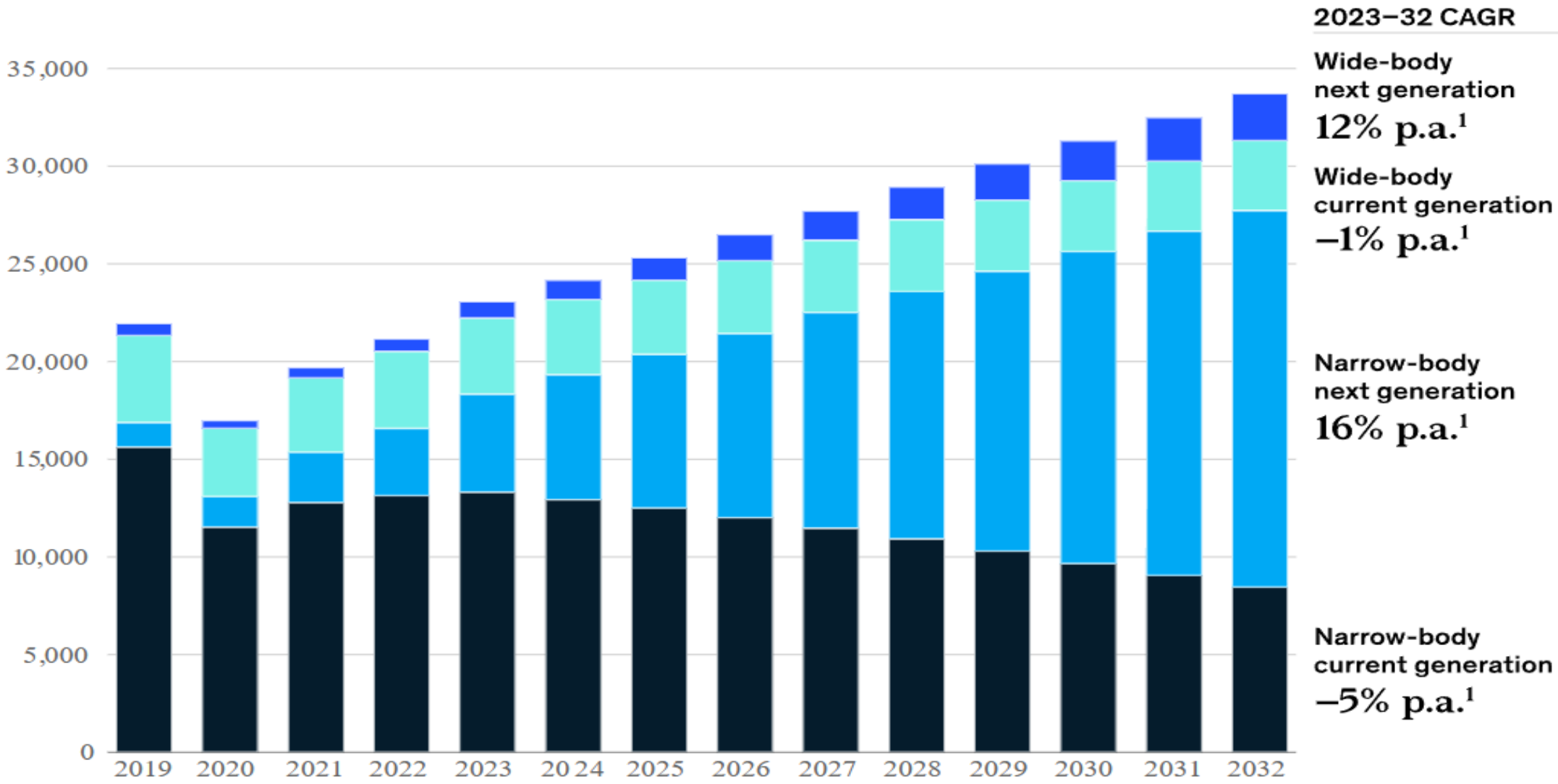
Source: KPMG



Fleet renewals

Depending on the state of an airline’s fleet, the evolutionary rollover to already available aircraft types represents a decarbonization potential of up to 15 to 20 percent.

Next-generation aircraft are expected to replace a significant share of current-generation aircraft in the next ten years.



Source: McKinsey & Company

Future Technology

- A transition to hydrogen powered aircraft.
- Boeing and Airbus work with engine manufacturers to make the switch to hydrogen as a propellent.
- Hydrogen, hybrid and electric models are likely to become widespread in the global fleet into the 2050s.

Sustainable Financing

- ESG issues become a central focus for investors, regulators and consumers, which will require aviation industry participants to adapt to new regulators and expectations.
- Banks can finance SAF production and infrastructure development, as well as invest in future technology and fuels such as green hydrogen.

References

- KPMG’s aviation leaders report 2023 – New Horizons
- McKinsey & Company’s article - Decarbonizing aviation: Executing on net-zero goals