



Environmental Framework and Manufacturer Commitment

Group on International Aviation and Climate Change

February 26, 2008 – ICAO Headquarters,

**The Honorable Marion C. Blakey
ICCAIA Chair**

What Drives Our Industry?





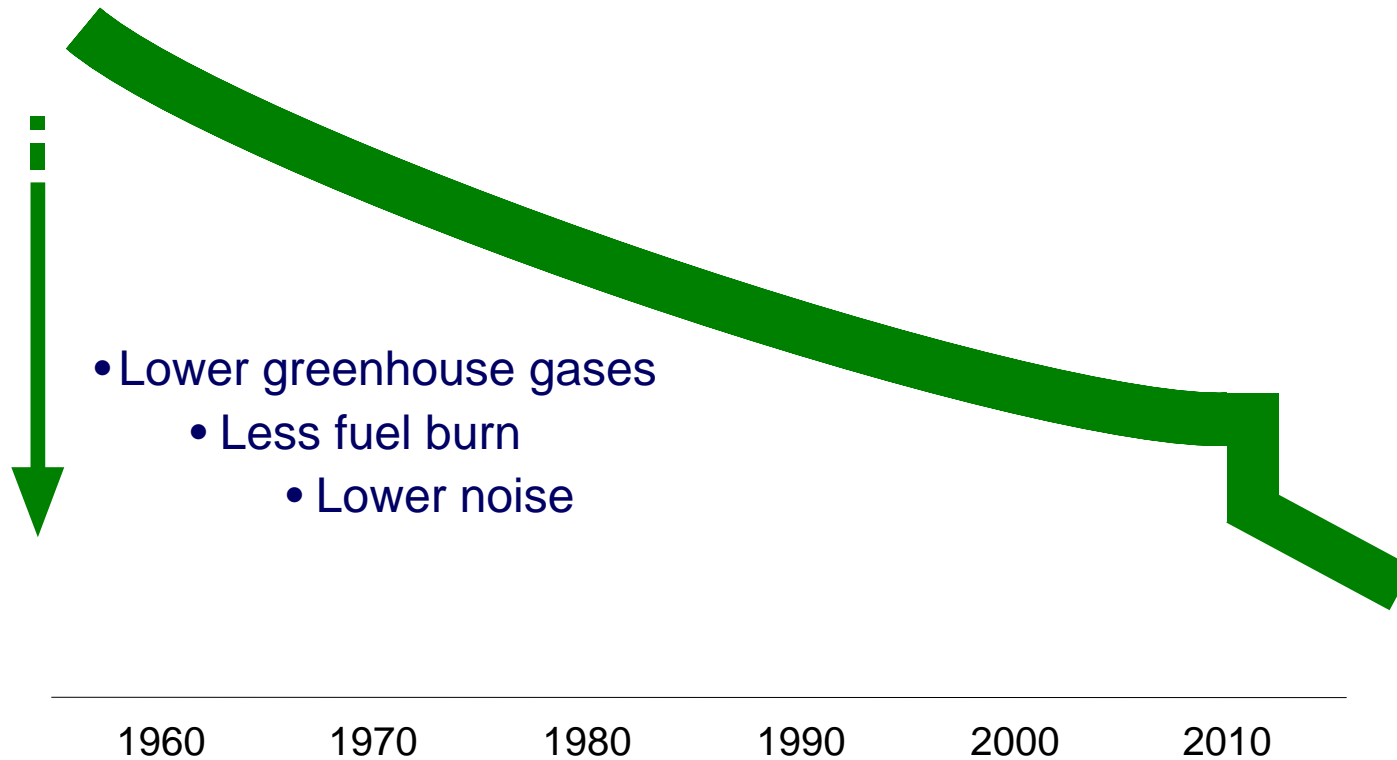
Environmental Policy Must be Consistent

All Environmental Concerns Need to be Addressed

- **Emissions**
 - **Local Air Quality**
 - **Aircraft Noise**
 - Land-Use
 - Water Quality
 - Population Changes
- } **Manufacturer Focus**

**The solution for meeting one concern cannot
constrain meeting other concerns**

New Technology is Key to Environmental Improvement



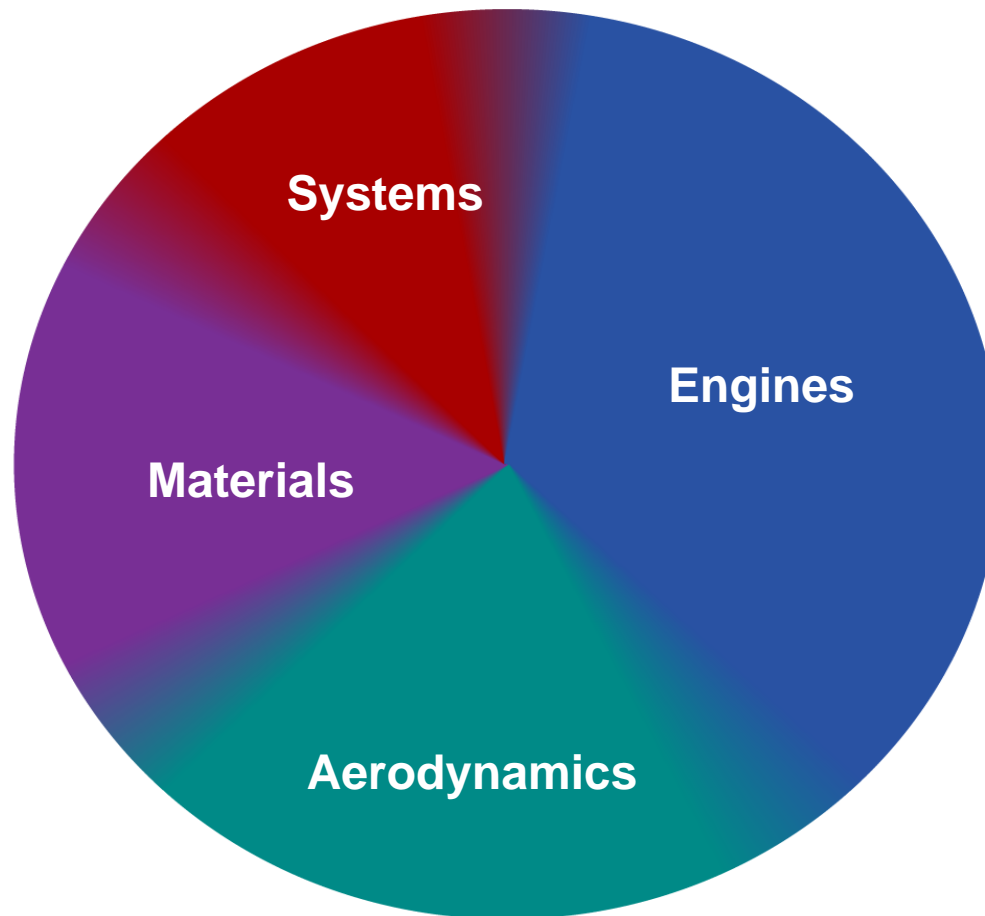


Manufacturers Commitment

- **At least 15% CO₂ improvement in new generation aircraft while continuing to significantly reduce NO_x and noise**
- **Partner with**
 - **Airlines to achieve their environmental goals**
 - **Industry and government to transform the air transportation system**
 - **Industry and government to qualify alternative fuels for aviation**

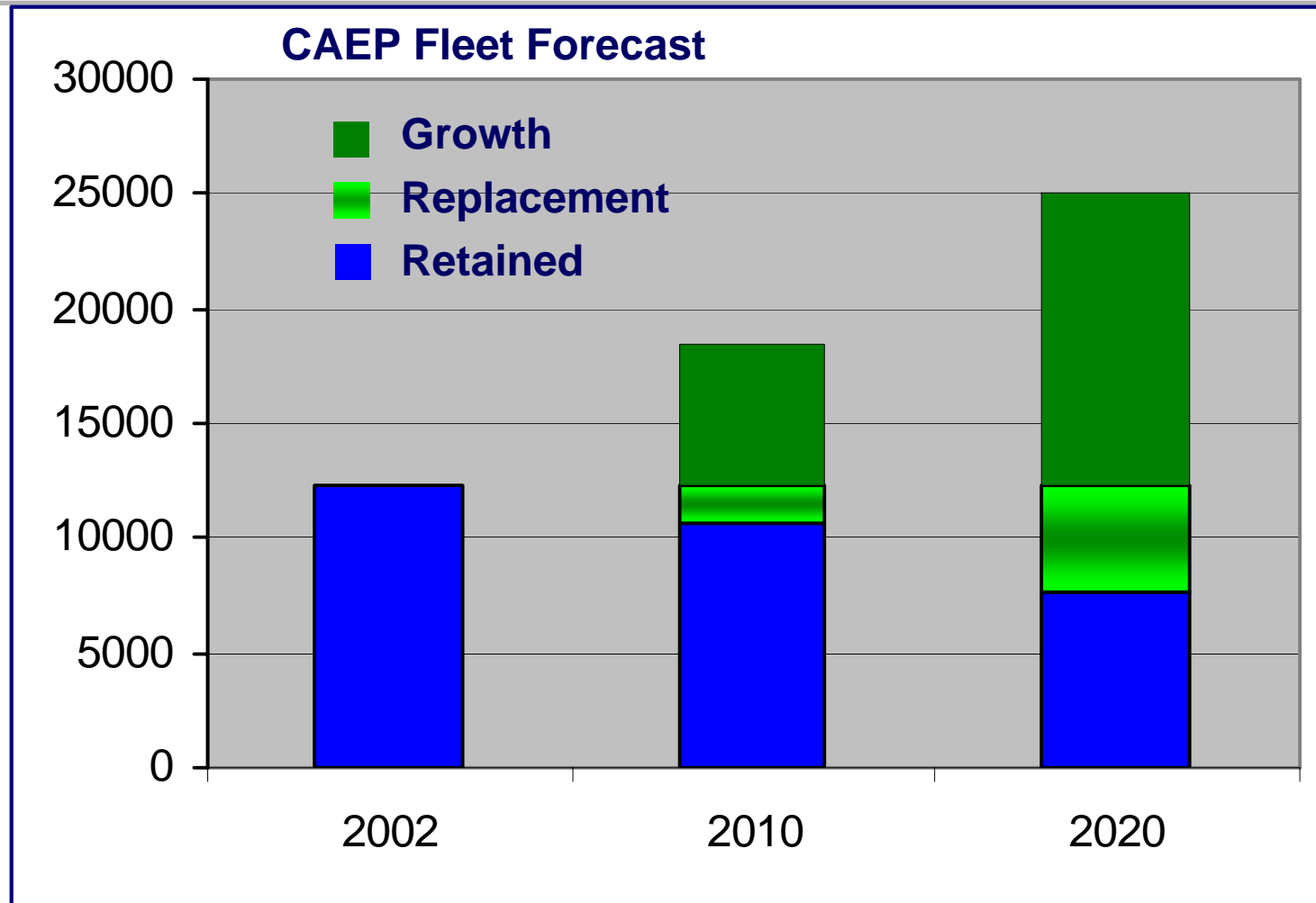


Advanced Technology Contributions to Airplane Efficiencies





Penetration of Technology into the Global Fleet





Air Transportation System

- **Congestion & Delay = Unnecessary fuel burn (CO₂)
= Unnecessary CO, HC & NO_x**

- **Costs are not fully allocated to the responsible party**
 - **Airlines pay the full cost of excess fuel burn**
 - **Air Transportation System transformation is a priority**



Alternative Fuels

- **Aviation has no viable non-carbon fuel substitute in the foreseeable future**
 - **Goal is introduction of lower carbon content fuel in ten (10) years**
 - **Emphasis is on synthetic biofuels**
 - **Manufacturers are investing in their development**



Technology = Continuous Emissions Reductions

- **Technologies for new aircraft are known**
 - **15% CO₂ improvement in each new generation**
 - **Along with further NOx & Noise reductions**

- **Technological breakthroughs are at risk**
 - **Industry invests heavily in technology**
 - **Public sector R&D investment is inadequate**
 - **ATS Transformation must be a priority**



Thank You