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Climate Change - Challenge for Airlines

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Brussels

October 2005
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The Environmental Dimension – future development and aviation’s fraction

„Of the total Global Warming of 0,9 K anticipated in 2050, about 0,05 K would be attributable to aviation“

Source IPCC 1999, Aviation and the Global Atmosphere, page 2/2 and 2/3
The Economic and Social Dimension: Aviations contribution to EU´s economy and job creation

- **The ACARE estimate** *(Source: Strategic Research Agenda 2, October 2004)*
  - Today (EU 15):
    - Part of EU GDP: 2.6%
    - Contribution to EU´s economy: 8-10%
    - Jobs: 3 million (direct)
  - Future-2020 (EU 25):
    - EU GDP: 3.3%
    - Contribution to EU´s economy: 11-13%
    - Jobs: 5-7 million (direct)

- **Air-Transport is a profit-center for governments**
  - Germany: +11€ per 1000 pass. km (rail: -51€ per 1000 pass. km)
  - France: +67€ per 1000 pass. km (rail: -78 € per 1000 pass. km)
  *(Source: Speech of IATA-Director General, Geneve, 17th of March 2005)*
The Future: An Integrated Approach

- We have a high potential of technology-improvements; see ACARE, Strategic Research Agenda 2, but we might have a problem in transferring new technology into application.

- We have significant gaps in ATM - efficiency and -structure in Europe:
  - Eliminating the current delays => - 1 Mio. to. of CO₂-waste.
  - European Single Sky => - 11% fuel consumption/CO₂ waste

- ICAO analysis has shown, that Taxes and Charges are not the right instruments. Money paid for taxes is lost for investment.

- To achieve emissions reductions and economic contributions a truly integrated approach must be explored.

=> AEA Emissions Containment Policy
The Future: An Integrated Approach

The AEA Emission Containment Policy combines three major Elements and one in Addition:

1. **Improvements in Technology**
   - See ACARE Strategic Research Agenda 2:

2. **Infrastructure Improvements**
   - Extension of Airports, where necessary, not everywhere

3. **Operational measures**
   - European Single Sky

4. Additional element: **Economic Measures (e.g. ETS)**
   - global in scope to have any effect and avoid competitive distortion, further examination necessary
   - (CE Delft Study leaves more questions than answers.)
The Future: An Integrated Approach

EU COM 2005 (35) „Winning the battle against global climate change“

The Participation Challenge

The Innovation Challenge

Figure 1: Projected development of greenhouse gas emissions in different regions of the world

Thus, even if the EU were to cut its emissions by 50% by 2050, atmospheric concentrations would not be significantly affected, unless other major emitters also

Could be a basis, but has not been discussed broadly nor has it influenced the discussion about aviation
Conclusions

n Environmental responsibility is a pillar of the aviation industry, together with safety and security. We have done a lot in past on a voluntarily basis and will continue (fuel prices!).

n Economic and environmental aspects must be balanced for achieving sustainability.

n We promote a integrated approach like the AEA Emissions Containment Policy, which could be combined with EU COM 2005 (35). Keys: Participation and Innovation

n Economic measures could contribute (if global and used for investment). More examination and alliance-building necessary.

n Proper and balanced solutions can only be found if industry and regulators take responsibility and cooperate.