

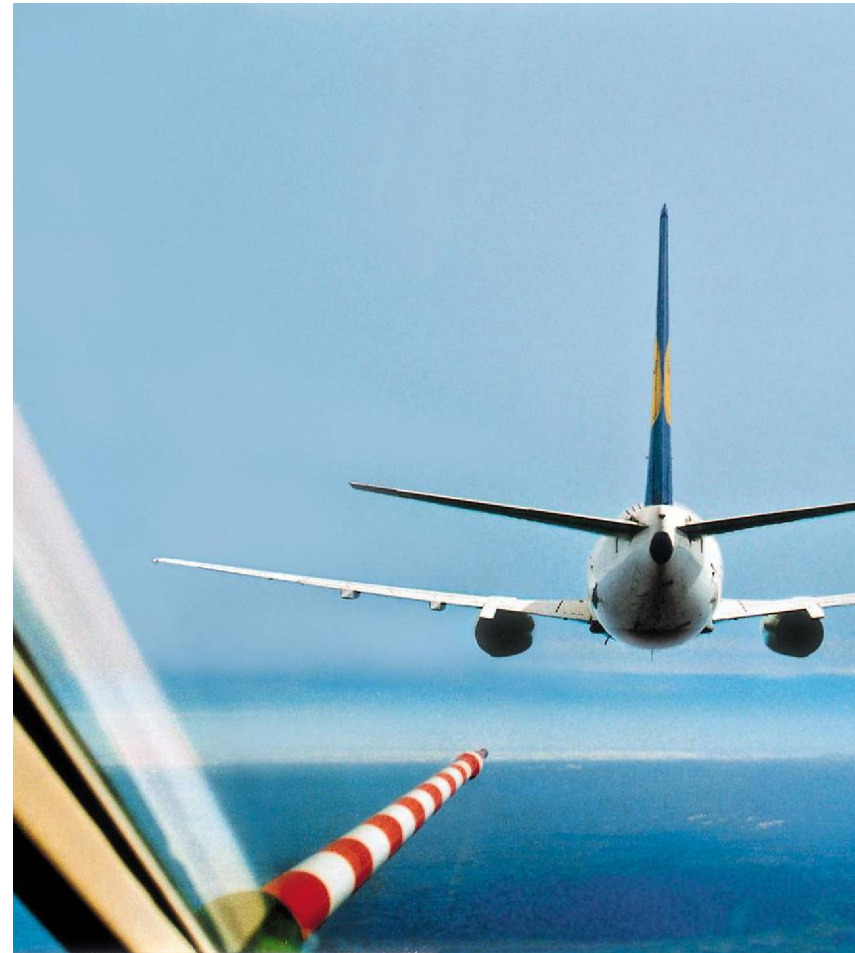
# Lufthansa German Airlines

## Climate Change - Challenge for Airlines

Dr. Karlheinz Haag

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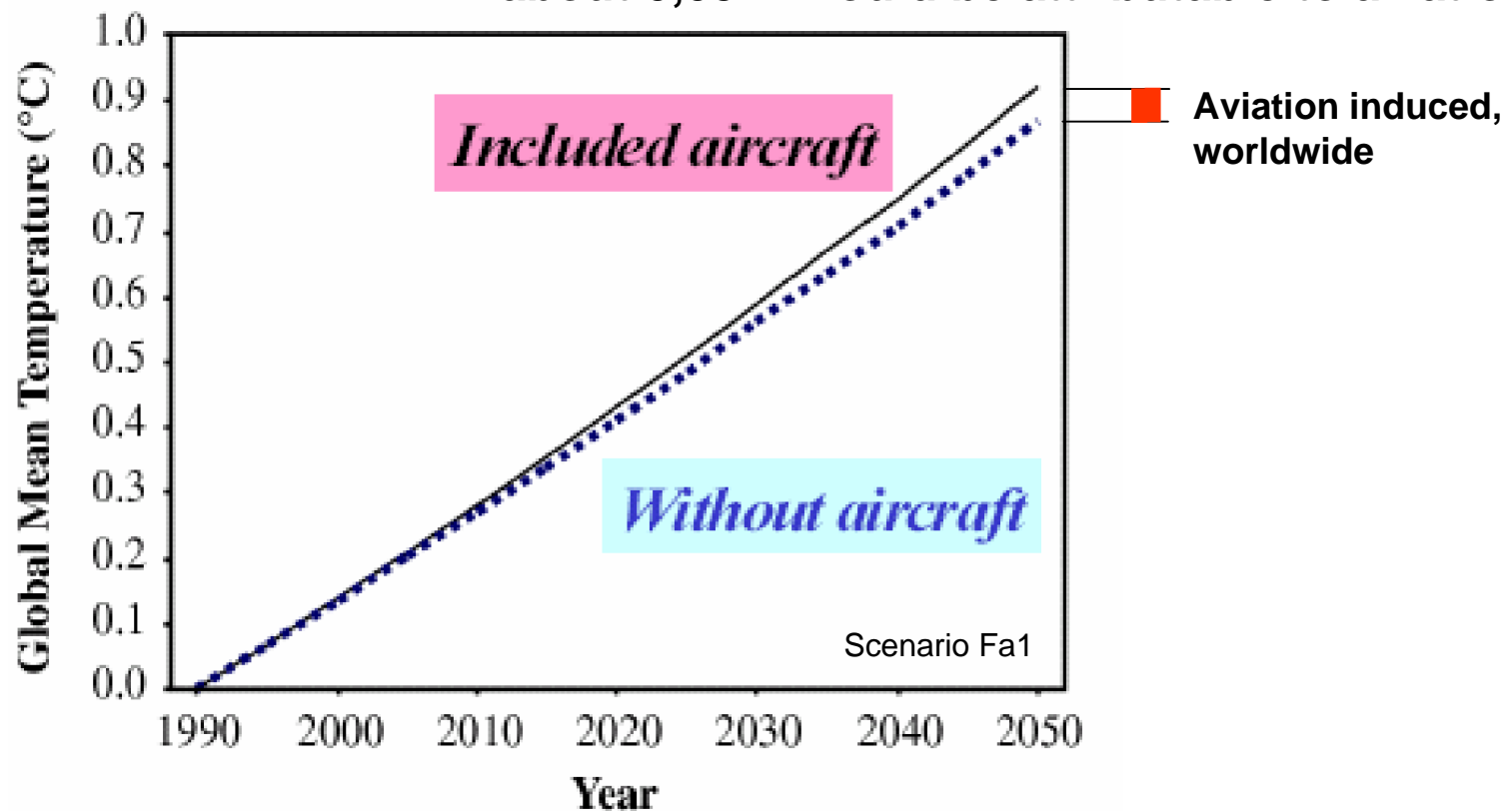
# Climate Change - Challenge for Airlines

Content:

- n The Environmental Dimension
- n The Economic and Social Dimension
- n The Future: An integrated approach
- n Conclusions

# 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

## n **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)**

## n **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

- n 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
- n We have significant gaps in ATM - efficiency and -structure in Europe:
  - Eliminating the current delays => - 1 Mio. to. of CO<sub>2</sub>-waste.
  - European Single Sky => - 11% fuel consumption/CO<sub>2</sub> waste
- n ICAO analysis has shown, that Taxes and Charges are not the right instruments. Money paid for taxes is lost for investment.
- n 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

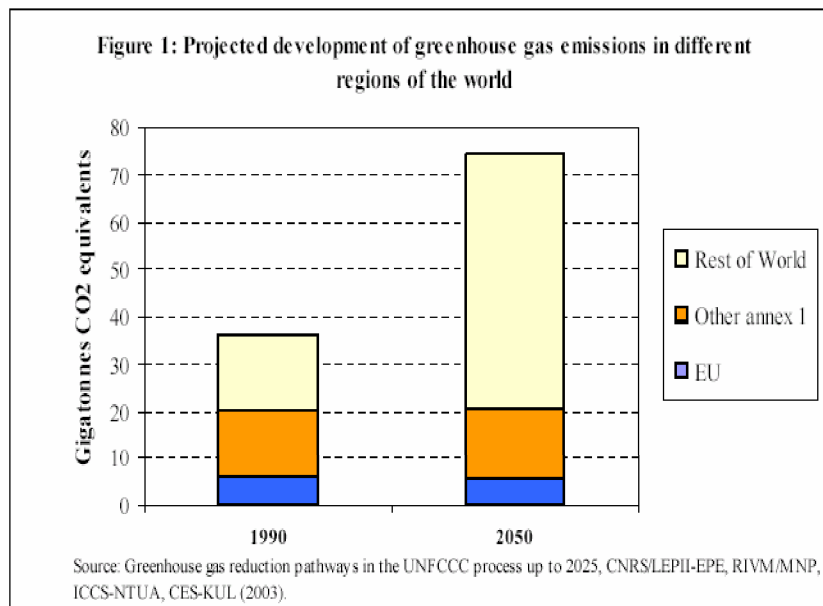
(CE Delft Study leaves more questions than answers.)

# The Future: An Integrated Approach

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

THE PARTICIPATION CHALLENGE

THE INNOVATION CHALLENGE



*Technology innovation: giving Europe a competitive edge in a low carbon future*

In the context of the Lisbon strategy, the Kok report stresses that the EU can gain a first mover advantage and can create a competitive edge by focusing on resource-efficient climate friendly technologies that other countries will eventually need to adopt. As an example, the countries that have taken the lead in promoting wind

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.