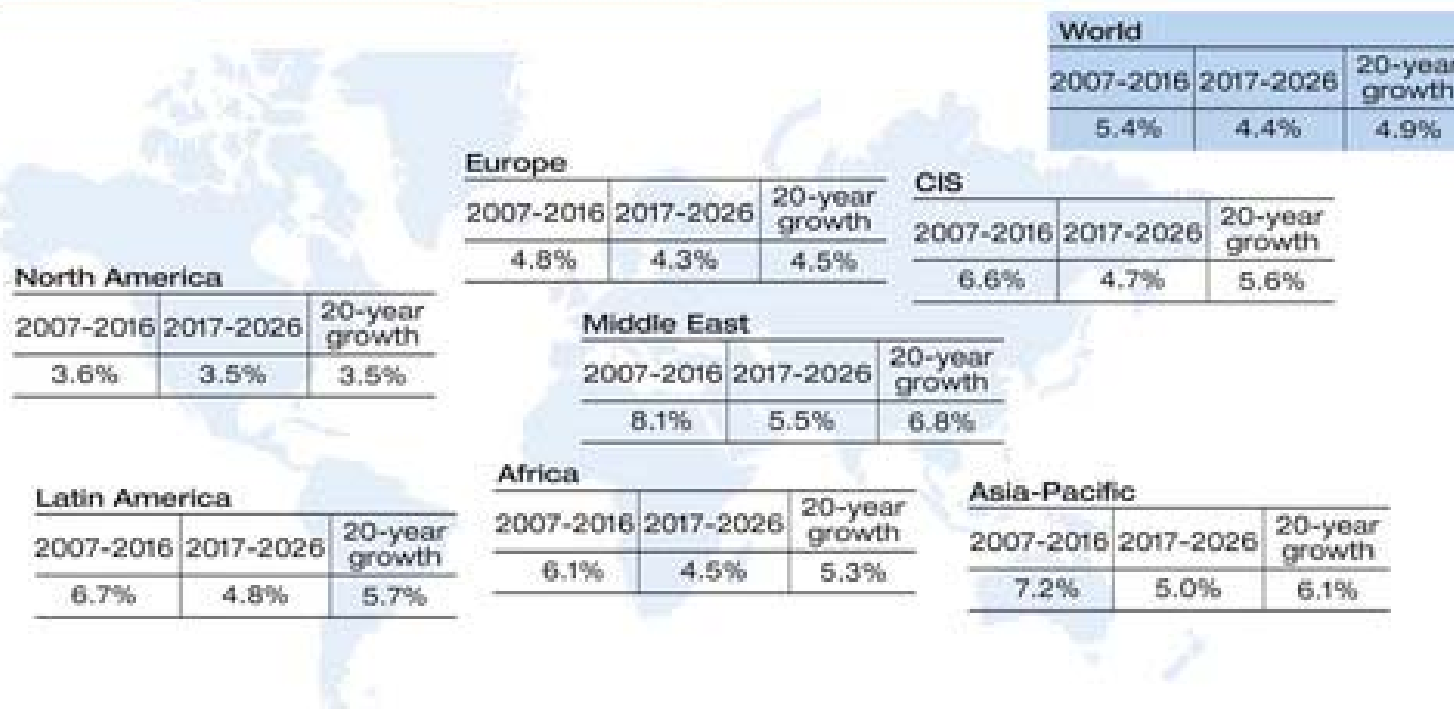


# Geert Boosten Trends in Aviation

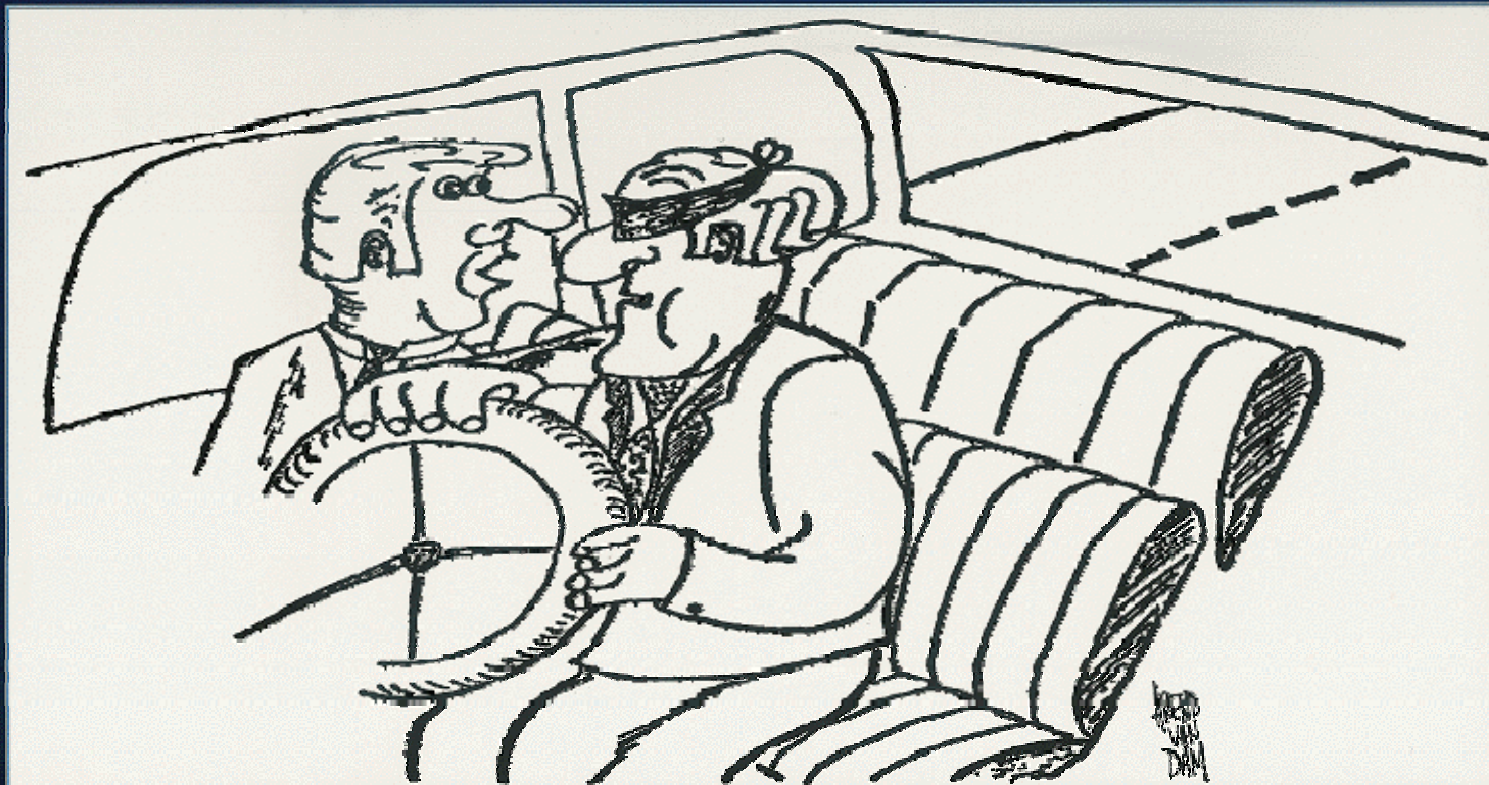


# Continious growth.....

## Passenger traffic growth by airline domicile



# What is our perspective?



"The road is still straight..."

Amsterdam Airport 5



# Continous growth or new route to follow?



## Name of the game: capacity?

- Capacity constraints will be a dominant factor for the next coming decade:
  - Airport/runway expansions
  - Sesar
  - New technology
- But solving the problems and introducing new technology might last much longer than foreseen

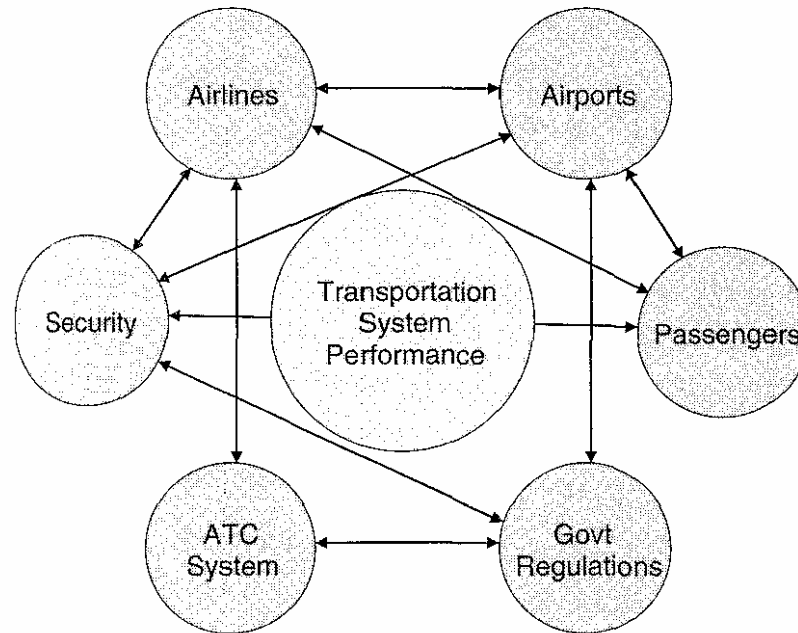


# Adding to complexity

- Hub
  - Size of airport facilities
  - Continuous economies of scale in operations
    - Terminal and landside capable to absorb all airside developments
    - Passenger process redesign, using tracking and tracing technology
- Security
  - Increased bottle neck and inefficiency at airports
  - Harming other processes and revenue streams
- Capacity
  - Extensive planning procedures



# A complex Adaptive System



## A Complex Adaptive System

The Overall transportation System's performance is directly impacted by the complex interaction of these elements

Fig. 4.2 Some of the nonlinear interactions between passengers, airlines, airports, and governmental agencies in this CAS.

Source: Terminal Chaos

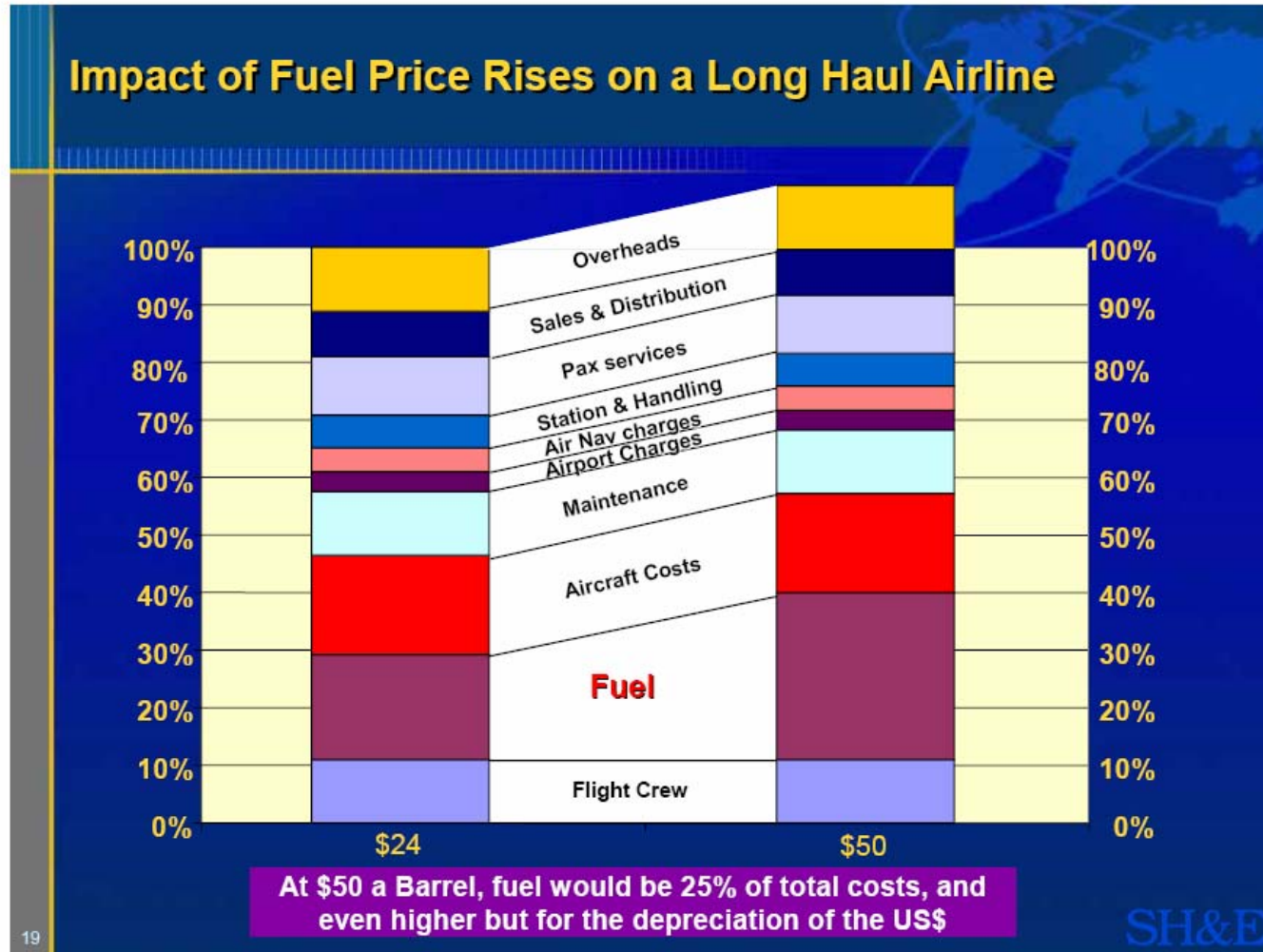


# Environment and fuel

- Environment
  - Noise no longer the dominant issue
  - Will technology solve the problem?
  - New economic drivers: CO2 rights
- The fossiel fuel bubble will burst at last?
  - Prices
  - Cost per RPK
  - 80-20 challenge
  
- What will be the most fuel efficient route to travel?



# Impact of fuel on airline cost structure

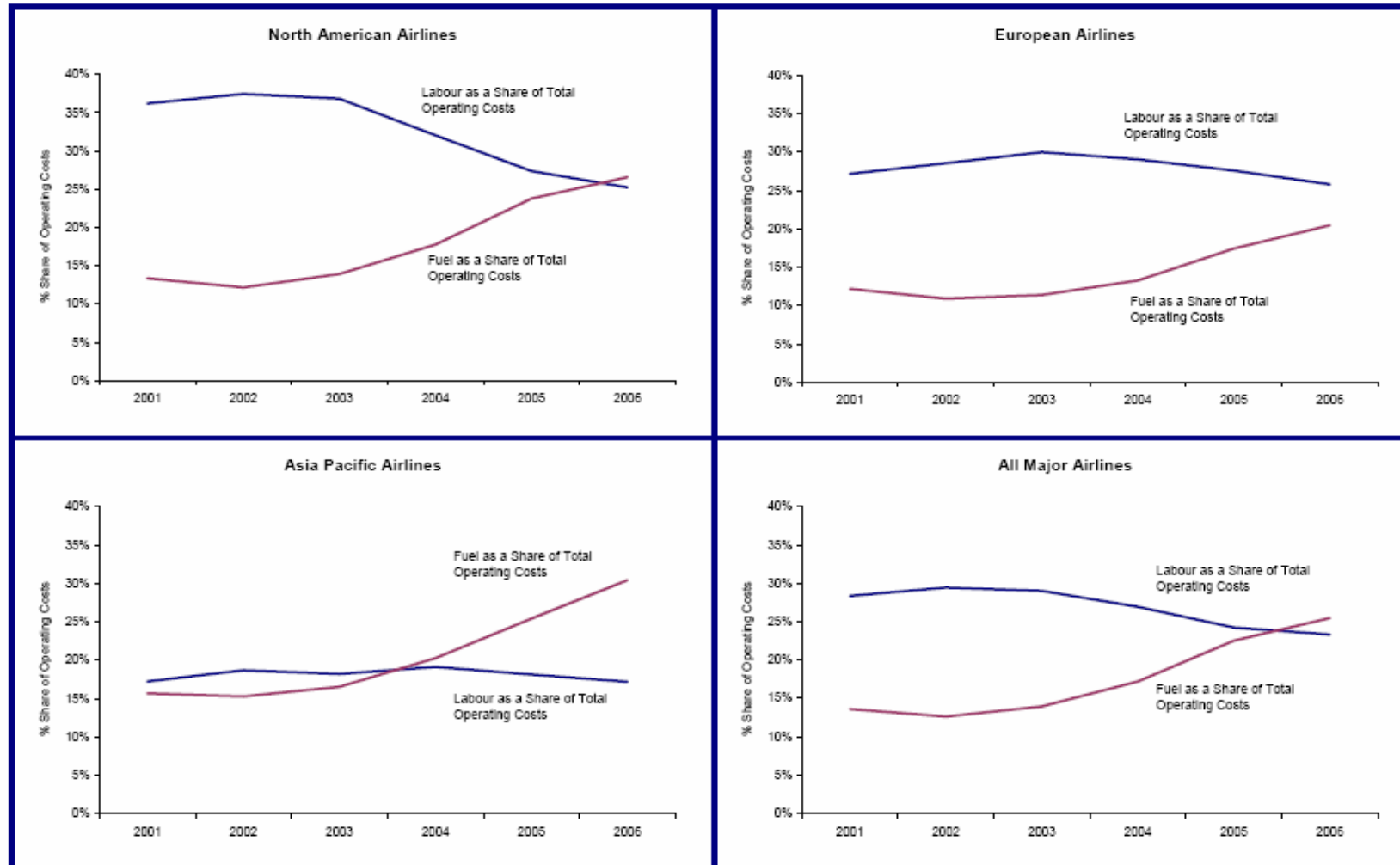


19



# Impact fuel

Figure 1: Labour and Fuel Cost Shares, by Region of Airline Registration



Source: IATA



## Serving the right destinations

- *Example: Schiphol, Milan*
- *... Welke concrete afspraken zijn er gemaakt over de toekomst van Schiphol (groei, bestemmingen, etc.)? De hub-positie van Schiphol is een cruciale factor voor een goed investeringsklimaat van Nederland en van de regio Amsterdam in het bijzonder, met belangrijke positieve effecten voor de economie en daarmee de werkgelegenheid.*

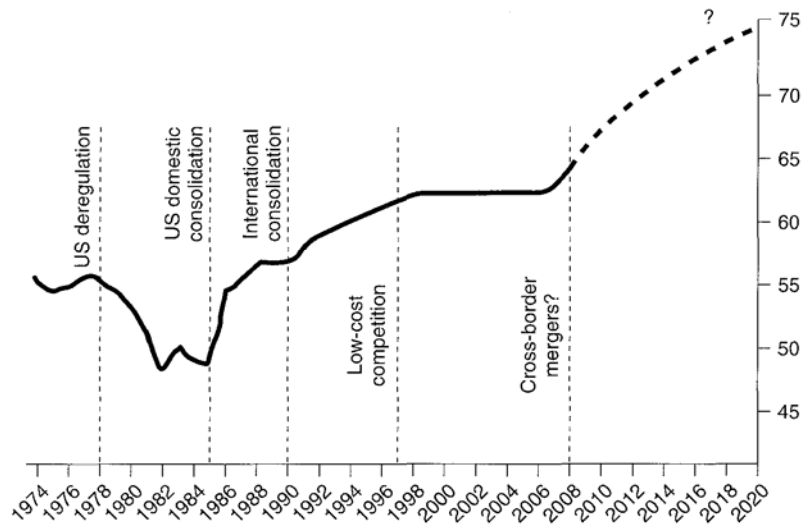
*Het is mede daarom dat het kabinet bij het fusievoorstel van KLM en Air France goed gekeken heeft naar de positie van Schiphol binnen de voorgenomen fusie en ook additionele waarborgen heeft.....*

source: [http://www.nvlt.org/archief/fusie\\_klm\\_en\\_air\\_france\\_29\\_232.htm](http://www.nvlt.org/archief/fusie_klm_en_air_france_29_232.htm)



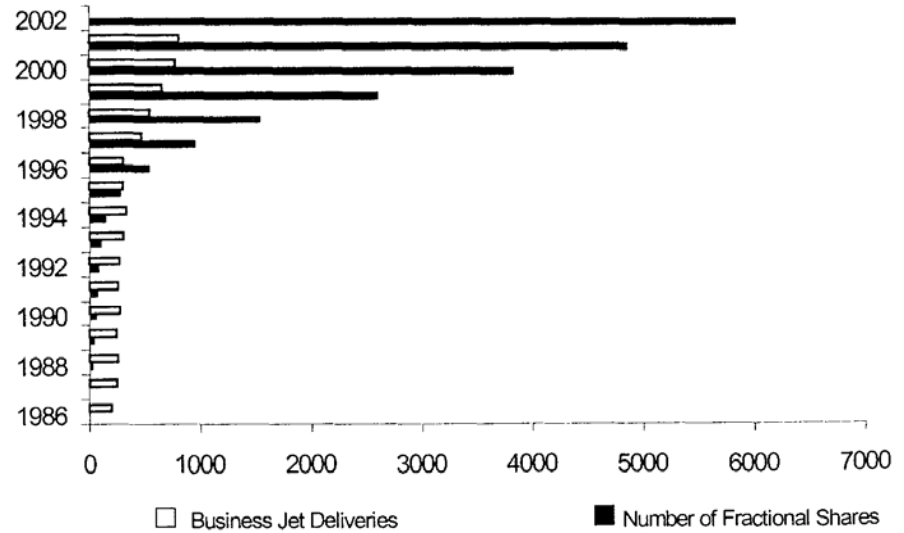
# Aircraft /Fleet development: Which direction?

114 Global Airlines



**Figure 3.7** Approximate share of world passenger-kilometres performed by the top 20 airlines, 1974–2020

Source: P. Hanlon, Global Airlines, third edition, 2006



**Figure 4-4: Number of Fractional Shares and Business Jet Deliveries 1986–2002**<sup>23</sup>

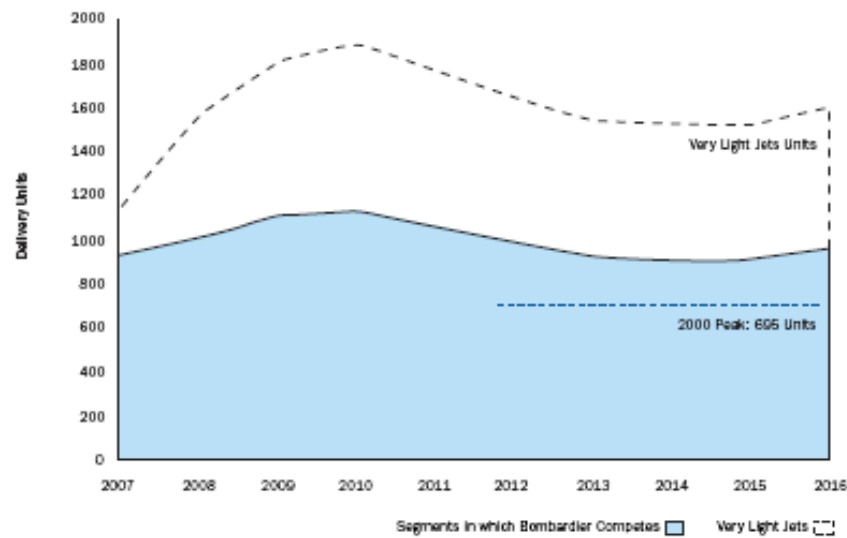
Source: W. Delfmann et al, strategic Management in the Aviation Industry, 2005)



# Business jet development

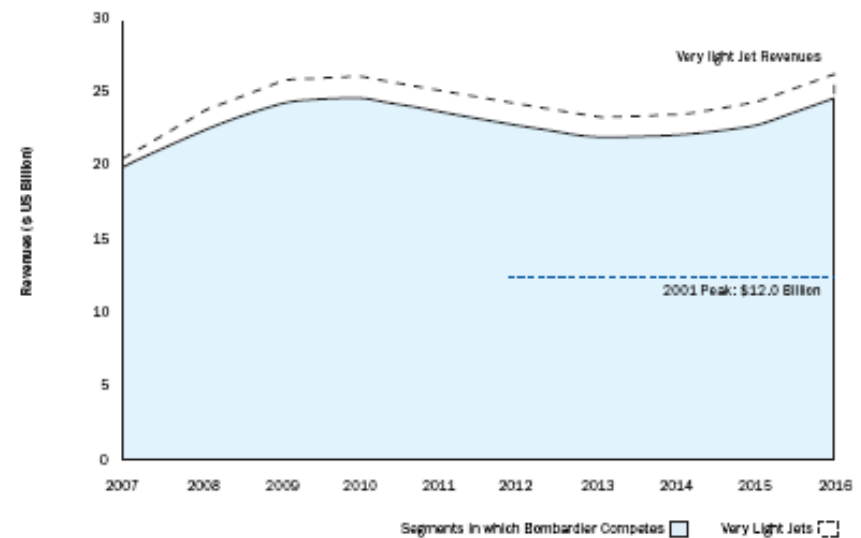
## Business Jet Delivery Unit Forecast

Units, Calendar Year 2007-2016



## Business Jet Market Revenue Forecast

Current \$US Billion; Calendar Year 2007-2016

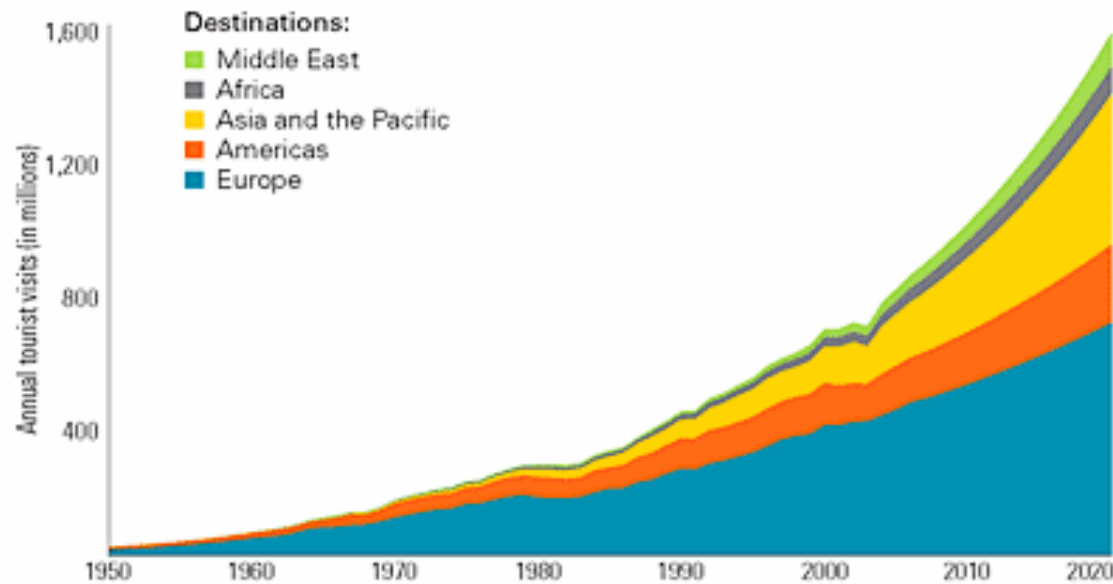


# Travel explosion: Remote destinations

- How many Eifel towers worldwide?

## Travel Explosion

The United Nations predicts that the annual number of international tourist visits will roughly double to 1.6 billion by 2020.



Source: United Nations World Tourism Organization, 9284400308



# Key issues in aviation development

UNIVERSITY OF COLOGNE



Dep. of Business Policy & Logistics

## Key Issues

1. The (European) Aviation Market is still an **Industry in Transition**.
2. **Cost Efficiency** as well as **Organizational Innovations** in the entire aviation value chain at the same time will be the pre-requisite for sustainability.
3. Aviation value chains are by definition **Intermodal Chains** and will only gain sustainability if they jointly provide **Customer Value**.
4. As demand for aviation services is derived / integrated, all actors in the aviation value chain are "**Third Party**".
5. **Reference models outside and inside the Aviation Industry** help to identify successful paths of innovation.
6. **Consolidation** and **Systemic Integration** will be the necessary and dominating feature of the coming years.
7. **Market Segmentation** and **Focused Business Models** will be key strategic elements in the aviation industry.
8. Actors will have to define their role in the aviation value chain clearly and to understand the (mutual) benefits of **Supply Chain Coordination**.
9. **Intermodal Collaboration** rather than intermodal competition can be a source of sustainable competitiveness.

HAC Sess. V 24/02/06

2



# Finding the Blind spots

	I do know	I don't know
I do know	1	2
I don't know	3	???



# Lessons learned form other industries

## Ridiculous ideas

- Telecom: mobile vs fixed
- Computers: pc vs main frame
- Airlines: low cost vs full service
- Music: download vs CD-sales
- Travel: internet booking vs travel agent
- Capital market: Shareholder activism vs investors



# Strategic Question

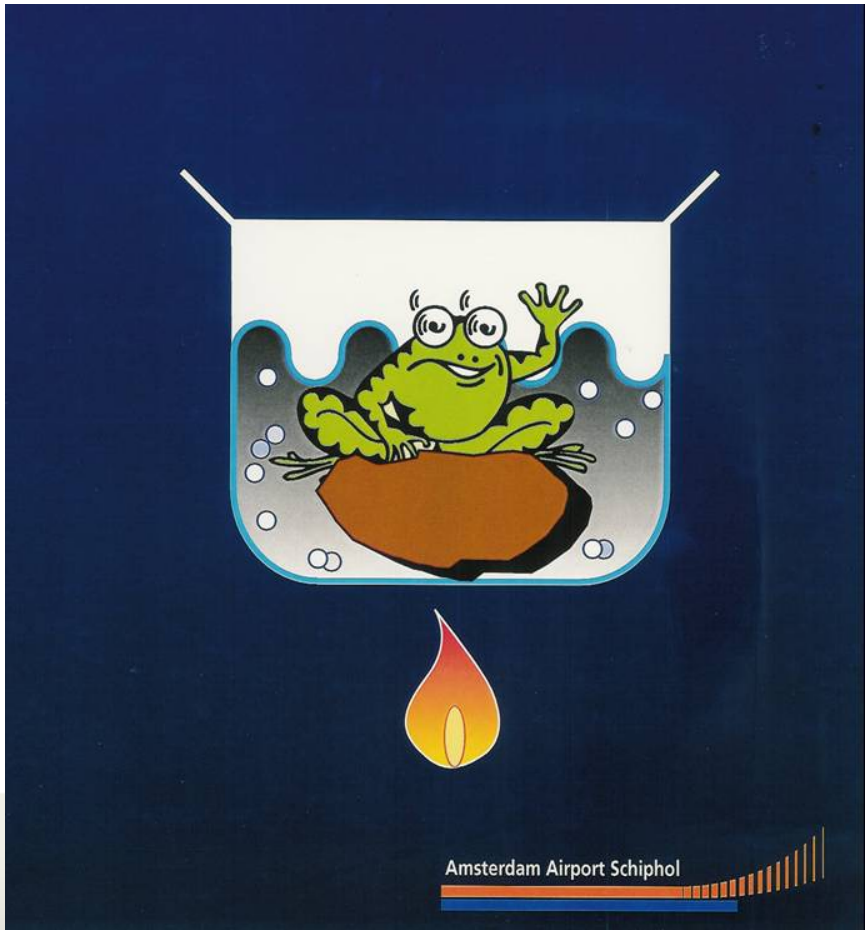
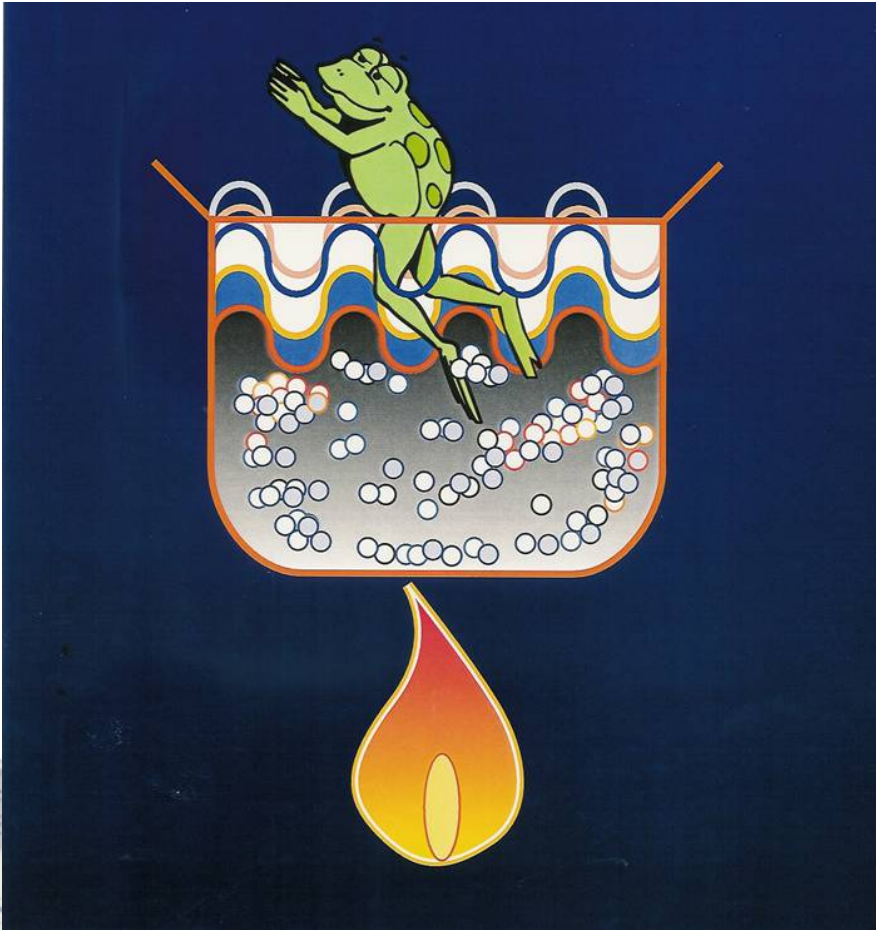
- What will be the next step in development of aviation?
- Looking forward or looking backwards?
- Will the industry be the same in 10 to 15 years:
  - If so what should NOT happen to achieve this goal?



- Thank you



# The paradigm of the Frog



Amsterdam Airport Schiphol



Hogeschool van Amsterdam  
Amsterdamse Hogeschool voor Techniek

