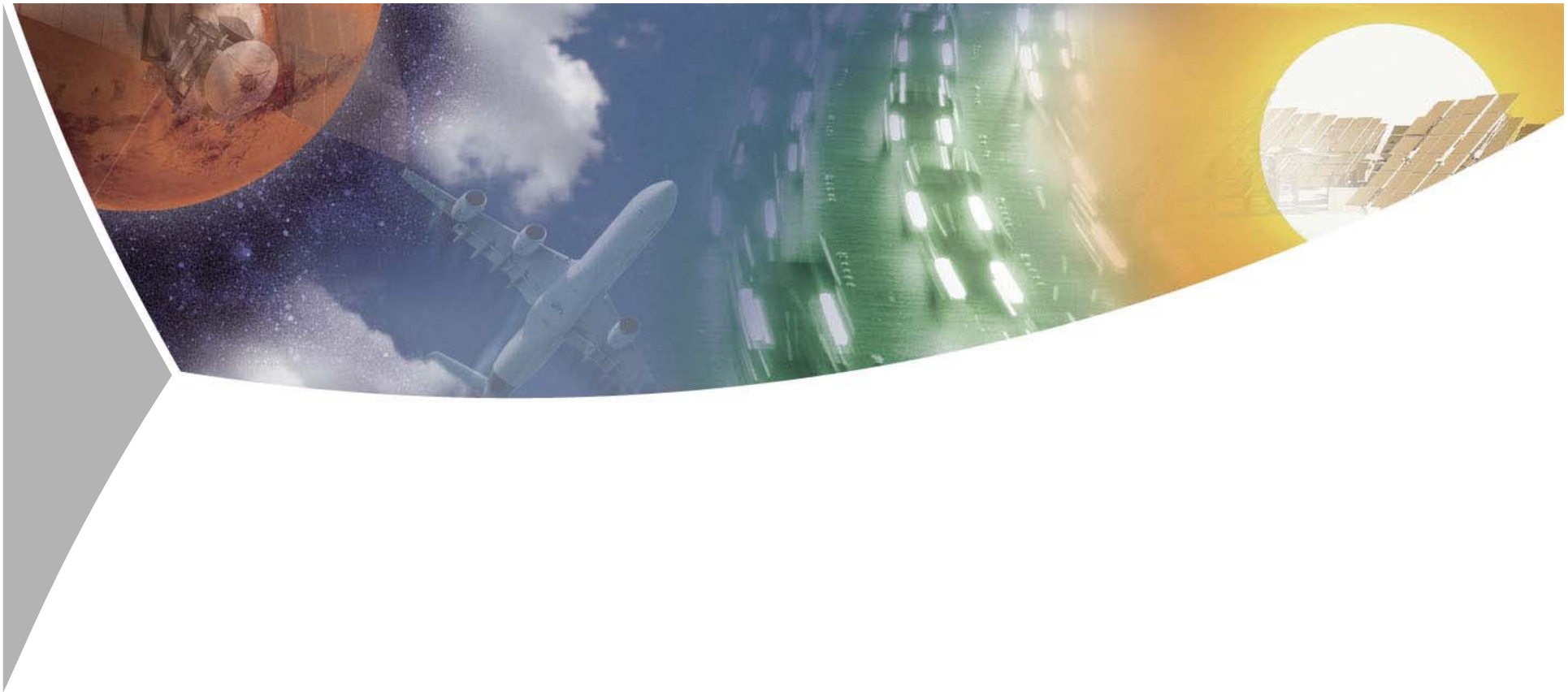




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Chances and boundaries of environmental reporting within the aviation sector



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für Luft- und Raumfahrt e.V.
in der Helmholtz-Gemeinschaft

Folie 2

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Overview

- 1. Introduction
- 2. Environmental Reporting
- 3. Environment and Aviation
- 4. Empirical Research:
 - > Benchmarking of Environmental Reports of Airlines





1. Introduction: Study Intention (I)

- Critical analysis of chances and boundaries in the context of environmental reporting

- **Central question (theoretical part):**
Are environmental reports a reasonable contribution to an ecological sustainable corporate management or do they have to be regarded only as pure PR-instrument?

- **Practical assignment (empirical part):**
Problem case aviation: How credible/meaningful are the environmental reports of airlines?



1. Introduction: Study Intention (II)

➤ Discussion of the central questions by benchmarking:

-> Comparison of the voluntarily published environmental information of selected airlines

➤ **Intention:**

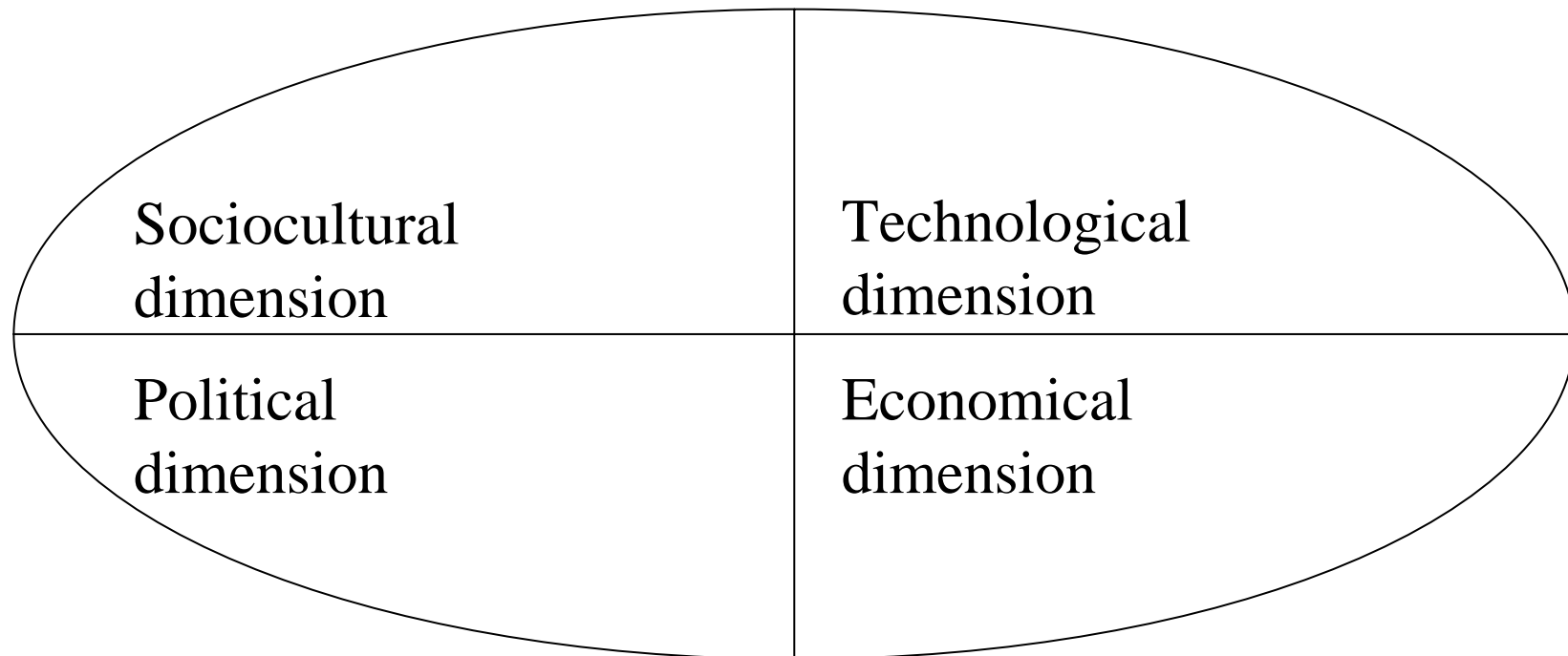
- Documentation of the status quo concerning environmental reporting in the airline sector

- Advancing/Improving significance and transparency of environmental reports in consideration of the strengths and weaknesses of this instrument



2. Environmental Reporting (I)

➤ 2.1 Necessity for ecological sustainable corporate management





2. Environmental Reporting (II)

- Sociocultural dimension:
 - increased awareness of environmental problems
 - ascended control- and sanction power

- Technological dimension:
 - high market potential for eco-friendly technologies
 - advancement of innovations

- Political dimension:
 - high probability of regulatory interferences
 - possibility of subsidies

- Economical dimension:
 - savings in costs and resources
 - positive effects (corporate image/economic success)



2. Environmental Reporting (III)

2.2 Chances

- image effects
- improved rating position on the capital market
- enhanced stakeholder dialogue
- updating of controlling and management activities
- motivation of staff
- identification of weak points/room for improvement
- transparency/trust
- monetary payoff



2. Environmental Reporting (IV)

2.3 Boundaries

- insecure and controversial respectively scientific results concerning influence and monetary quantification of environmental damages
 - > impreciseness/incompleteness
- lack of standardization
 - > little comparability/reliability
- problematic verifiability
- information not easy to conciliate
- dilemma situation (authentic vs. marketing-based communication)
 - > „Greenwashing“ suspicion

Central problem: Credibility !!!



2. Environmental Reporting (V)

2.4 Benchmarking of environmental reports

a). Function of Benchmarking:

„The main function of benchmarking is a task-oriented comparison with the market leader or the international ‚class winner‘ with regard to a product, process or service.“

(cf. Doktoranden-Netzwerk Öko-Audit e.V., p. 193)



2. Environmental Reporting (VI)

b). Use for relativisation of the problems of environmental reporting

... via sectoral benchmarking:

- identification of the relevant environmental problems and solutions
- recognition of best practice strategies
 - > innovations/learning effects
- demasking of ‚black sheeps‘
- public control pressure
- incentives for competitive thinking
- image effects in the case of good results
- staff motivation

-> Rise of transparency, expressiveness and credibility



3. Environment and Aviation (I)

3.1 Emissions

- different emissions (amongst others CO₂, NO_x, vapour trails)
- global vs. local effects
- long-term vs. direct effects
- problem: partly complex and partly unexplored cause-effect relationships
 - > assured statements not possible
- estimation: at the moment aviation responsible for 2% – 3% of total global CO₂-emissions
- with regard to the strong demand growth this rate will gravely expand in the future



3. Environment and Aviation (II)

3.2 Noise

- local environmental problem, only immediate effects
- source: starting and landing as well as ground activities around airports
- physical and psychological stress
- with regard to capacity constraints and the growth of aviation intensification of this problem can be expected



3. Environment and Aviation (III)

3.3 Solution approaches

emissions/noise:

- a). Optimisation of flights and flight behaviour
- b). Technological optimisation
- c). Political means
- d). Incentives for traffic shifting



4. Empirical Research (I)

4.1 Methodology

- Analysis of environmental reports of 32 airlines
- containment on online information
- provision for FSNC's und LCC's
- quantitative and qualitative analysis

4. Empirical Research (II)

	Europe	North America	Remaining World
FSNC's	Lufthansa British Airways Air France-KLM Iberia Austrian Airlines SAS Alitalia Swiss	Air Canada American Airlines Delta Air Lines United Airlines Continental Airlines	Singapore Airlines Emirates ANA JAL Qantas Korean Air Cathay Pacific
LCC's	Ryanair easyJet Air Berlin TUIfly Germanwings Flybe	Southwest Airlines JetBlue	Air Asia Jetstar Virgin Blue GOL



4. Empirical Research (III)

4.2 Quantitative Analysis

- modification of the German IÖW ranking
- concept: credit point system
- constriction on some special research criteria
- (e.g. statements to ecological performance figures, use of time series analysis, target formulation)
- weighted evaluation of the performance with regard to the several categories by using different points (5, 3, 1, 0)
- ranking formation



4. Empirical Research (IV)

4.2 Quantitative Analysis

Example: IÖW-Evaluation

Criterion: Ecological performance figures

0 points: no information

1 point: performance figures incomplete

3 points: performance figures complete, but no further explication

5 points: performance figures complete with full description



4. Empirical Research (V)

4. Qualitative Analysis

Verbal discussion of special aspects:

- participation in R&D projects
- ecological lobbying
- stakeholder dialogue
- carbon calculators
- self-criticism



Thank you for your attention!