

Communication as an addition to noise mitigation programs

Konferenz „Verkehrsökonomik und -politik“

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Knowledge for Tomorrow

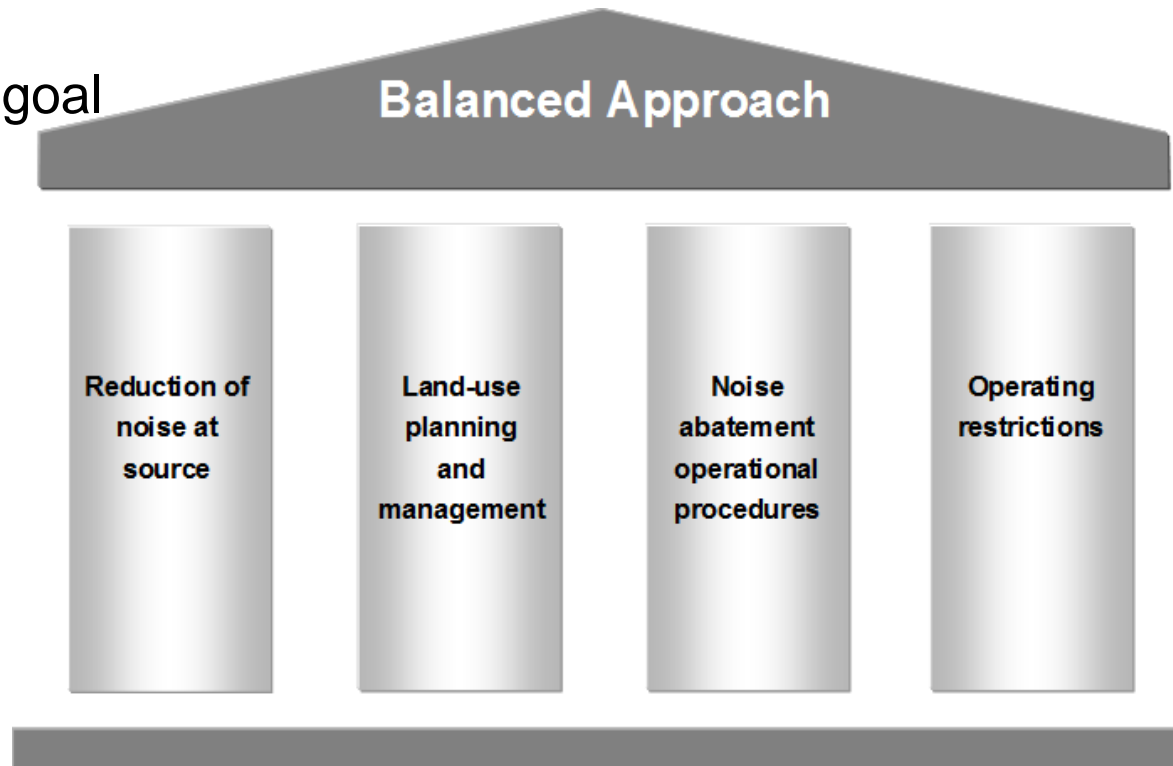
Overview

1. Noise mitigation programs
2. Effectiveness of these programs
3. Noise development at airports
4. Affected vs. annoyed people
5. Symbolic policy = green washing?
6. Communication as add-on
 - a) Theoretical background a: Stakeholder theory
 - b) Theoretical background b: Corporate Citizenship
 - c) Communication on the B2B-level
 - d) Communication with annoyed citizens
7. Conclusion



Noise mitigation programs – the Balanced Approach

- **Starting point:** increasing number of ops restrictions at airports globally
- More and more restrictions for new investments
- 2001 ICAO presented new guidelines with the goal
 - Max effectiveness
 - Consistency, harmonization, transparency
- Parity of the 4 columns but restrictions only as the last resort



Noise mitigation programs:

– Political Concepts for Traffic-Noise-Reduction –

– Noise-related measures

- noise surcharges
- noise budget restrictions
- aircraft related noise-level-limitations

– Operational measures

- curfews
- operating quotas
- frequency capping
- aircraft size steering
- airport cooperation for noise reduction
- administrative traffic-steering
- modal-split-steering

– Preliminary procedures and measures for enforcement of noise-reduction measures

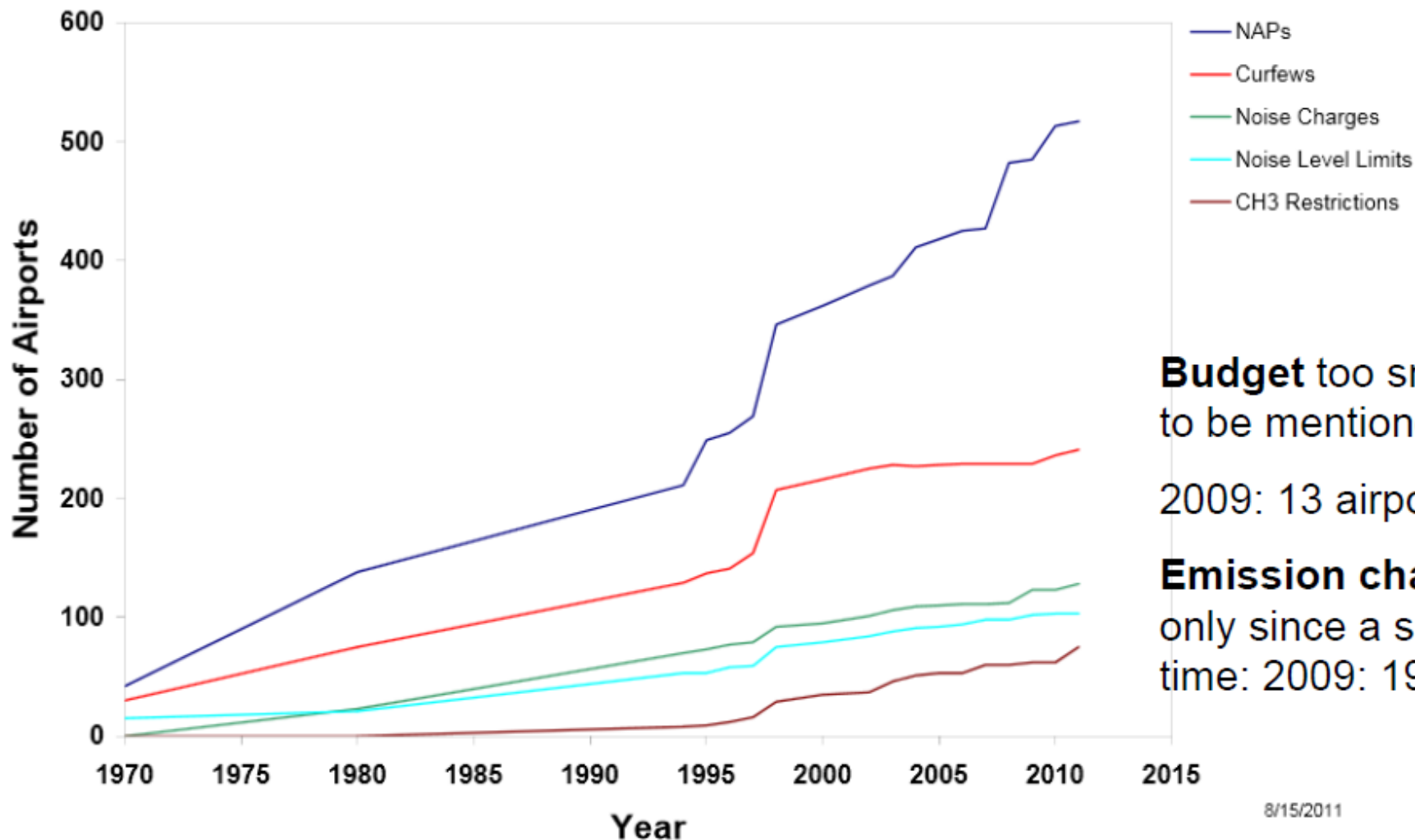
- Mediation
- Individual prosecution of noise-violations

– Measures directed to increase the noise-acceptance and to reduce the exposure to noise

- Incentives for noise-exposed population
- real-estate- and land-use-policy



Growth in Airport Noise Restrictions



Budget too small
to be mentioned!

2009: 13 airports

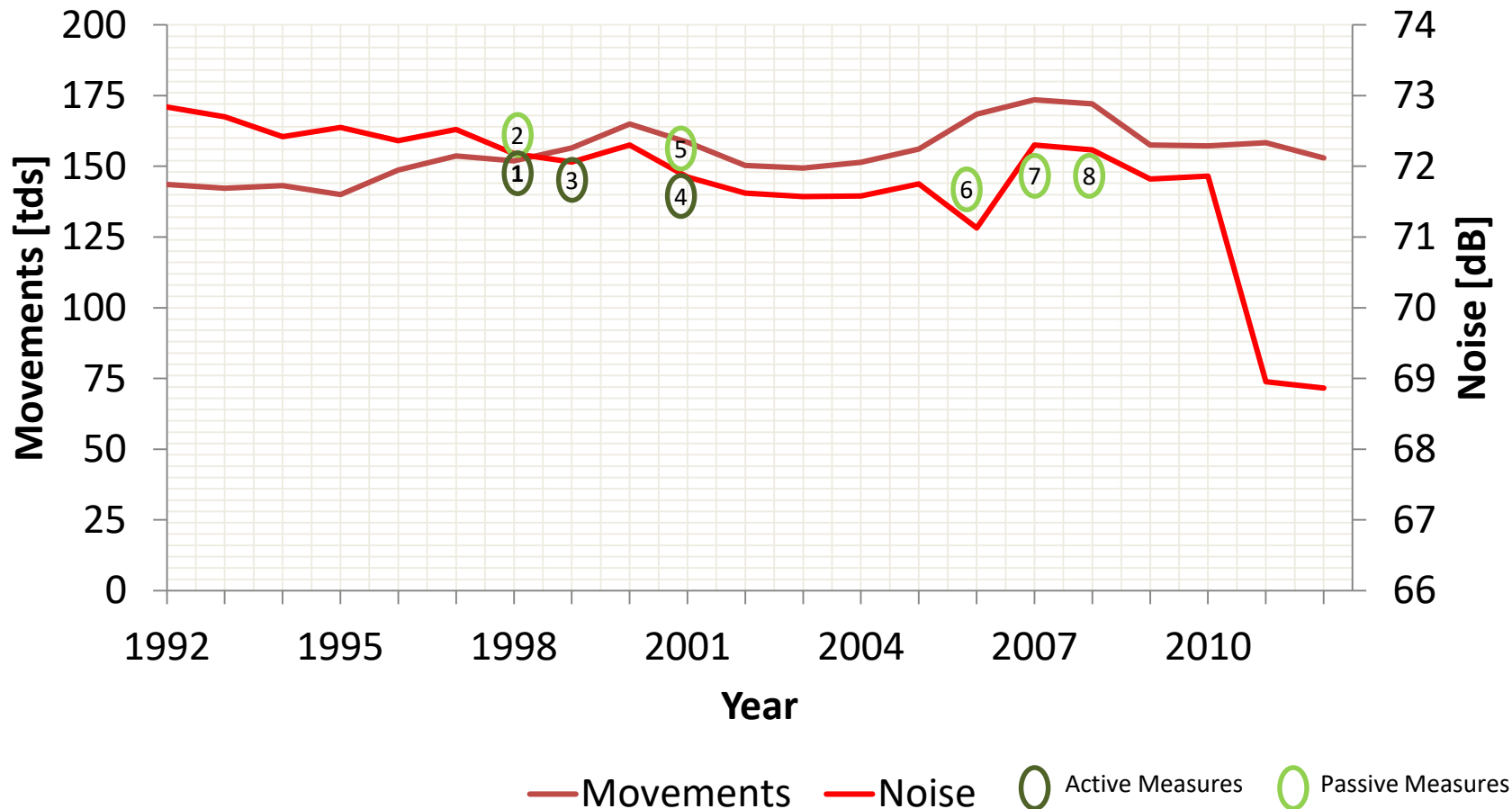
Emission charges
only since a short
time: 2009: 19

8/15/2011



Noise development at airports – case of HAM

- Mainly 3 influencing factors for noise:
 - size of aircraft
 - number of movements
 - generation of engine
- Engine generation has the highest influence → noise mostly constant



Measures taken at HAM during time

Year		HAM Active Measures
1	1998	<ul style="list-style-type: none"> • Noise quota • Restriction noisy aircraft at night
3	1999	<ul style="list-style-type: none"> • Noise contingency
4	2001	<ul style="list-style-type: none"> • Measurement-based noise-related landing charges • Increase landing charges around night curfew hours
		Night curfew Preferential runway usage Minimum noise routings Efforts to reduce ground noise Noise-related landing charges

Year		HAM Passive Measures
2	1998	<ul style="list-style-type: none"> • Land-use planning
5	2001	<ul style="list-style-type: none"> • Restriction: no thrust reversal at night
6	2006	<ul style="list-style-type: none"> • Environmental Management System
7	2007	<ul style="list-style-type: none"> • APU control Sheriff
8	2008	<ul style="list-style-type: none"> • Lärmaktionsplan City HAM
		9 Noise Protection Programs



Symbolic policy = green washing?

Effectiveness often **difficult to measure** as

- intentions of corporation
- answers of various addressees
- and it's results are extremely COMPLEX!

(Great field of application: environmental issues)

Examples of reactions:

- Will the problem be solved by the action (e.g. noise stays at same level)?
- Will the problem be solved but out of other reasons?
- Are planned actions conform with implemented actions?
- How long does it take to implement? Planned vs. actual time horizon



Symbolic policy - application

- **Application depending on**
 - the political role of the corporation
 - and the transparency of the issue that has to be solved
 - The power the addressee have
- **Strategies:**
 - The higher the public's knowledge about the RESPONSIBILITY, the more the actions should consist of substantiality
 - The higher the TRANSPARENCY of a problem, the less symbolic actions should be applied
 - The less of both, the less control the public has to control,
 - But: still high public interest to solve problem!



Symbolic policy = green washing?

Example of positive usage (MATTEN , 2003)

- User: German Government, addressee broad public
- Introduction of **Waste Management System** in 1992
- Leads consumers to separate waste at home
- Aims at a change in attitudes towards environmental awareness of consumer
- A totally change of attitude towards waste was NOT mainly intended

Results:

- COMMUNICATION of problems afflicted with environmental risk that reaches every person
- AWARENESS about link between consumer behavior and environmental issues amongst consumers and corporations in Europe
- Reduced environmental RISK



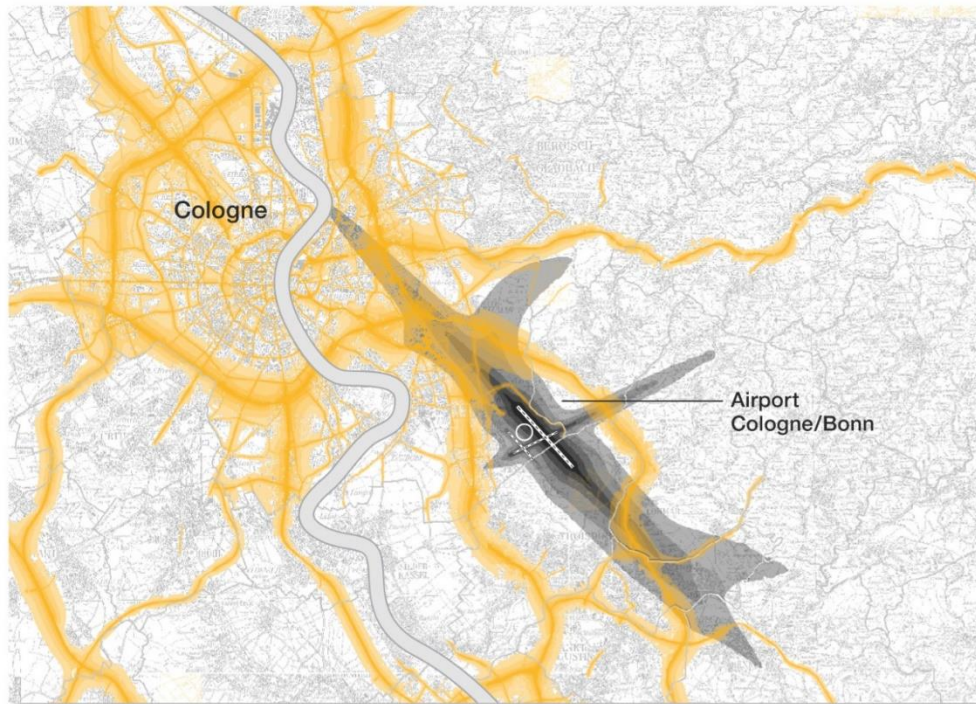
Symbolic Policies – Necessity or Problem?

+/- FIRMS / POLITICS		+/- STAKEHOLDERS	
+ Low investments	- No risk decrease	+ Creates awareness	- Low transparency
+ Straightforward method of implementation	- Lost time to solve problem	+ Resulting change in stakeholder's behavior	- Few tools to check efficiency - Information asymmetry
+ Supposed result: increased image	- Thread of likelihood of failure → sanctions?	+ Power to execute pressure on firm	- Morally acceptable?
+ Increases competitiveness	- Positive image through green-washing?		



Affected vs. annoyed people

Noise pollution caused by road and air traffic

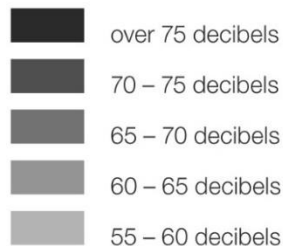


Median noise level caused in a year by...

road traffic



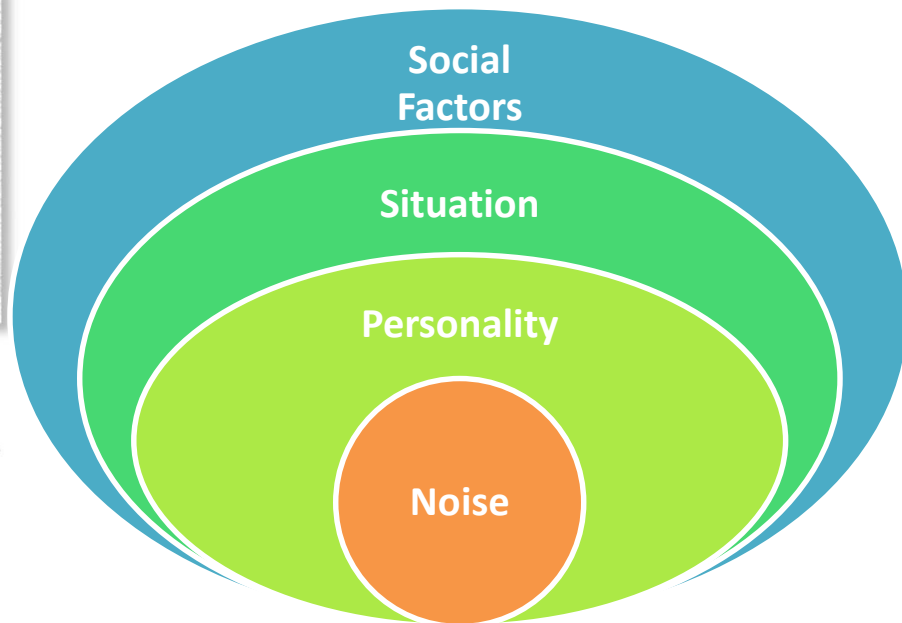
air traffic



Source: Ministry for the Environment and Nature Conservation, Agriculture, and Consumer Protection of the State of North Rhine-Westphalia

The maps are available at www.umgebungslaerm.nrw.de

- „Affected“ is objectively measurable
- Annoyed is the subjective feeling
- Noise explains only partially annoyance
 - NORAH (2015) 39-59%
 - COSMA (2013) 33%



Annoyance

- Personality
 - Acceptance
 - Attitude
 - Sensitivity
 - Real estate fear
- Situational
 - Day / night
 - Disturbed sleep
 - Week-end
 - House owner
- Social factors
 - Transparency
 - Trust
 - Fairness
- Different Influencability

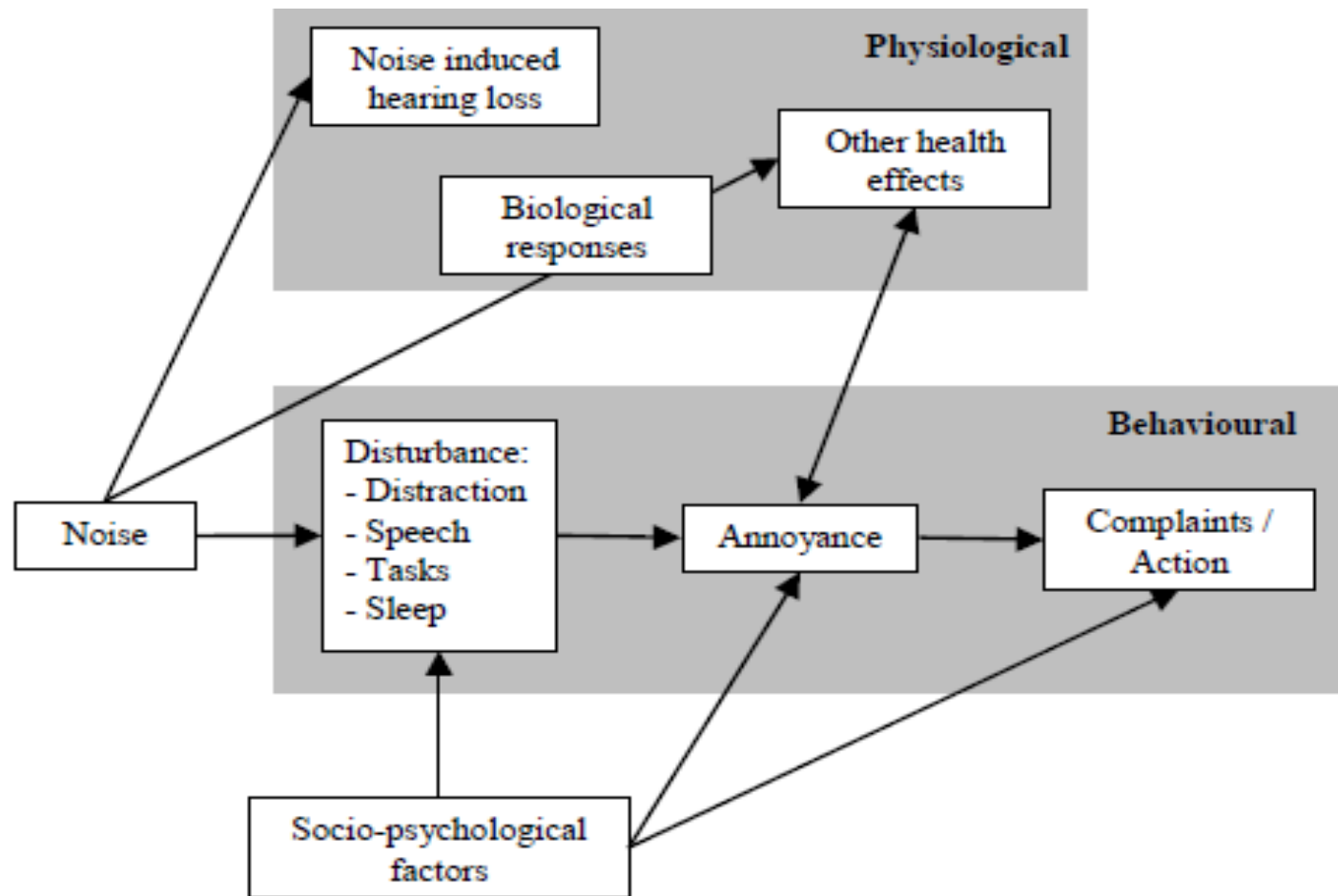
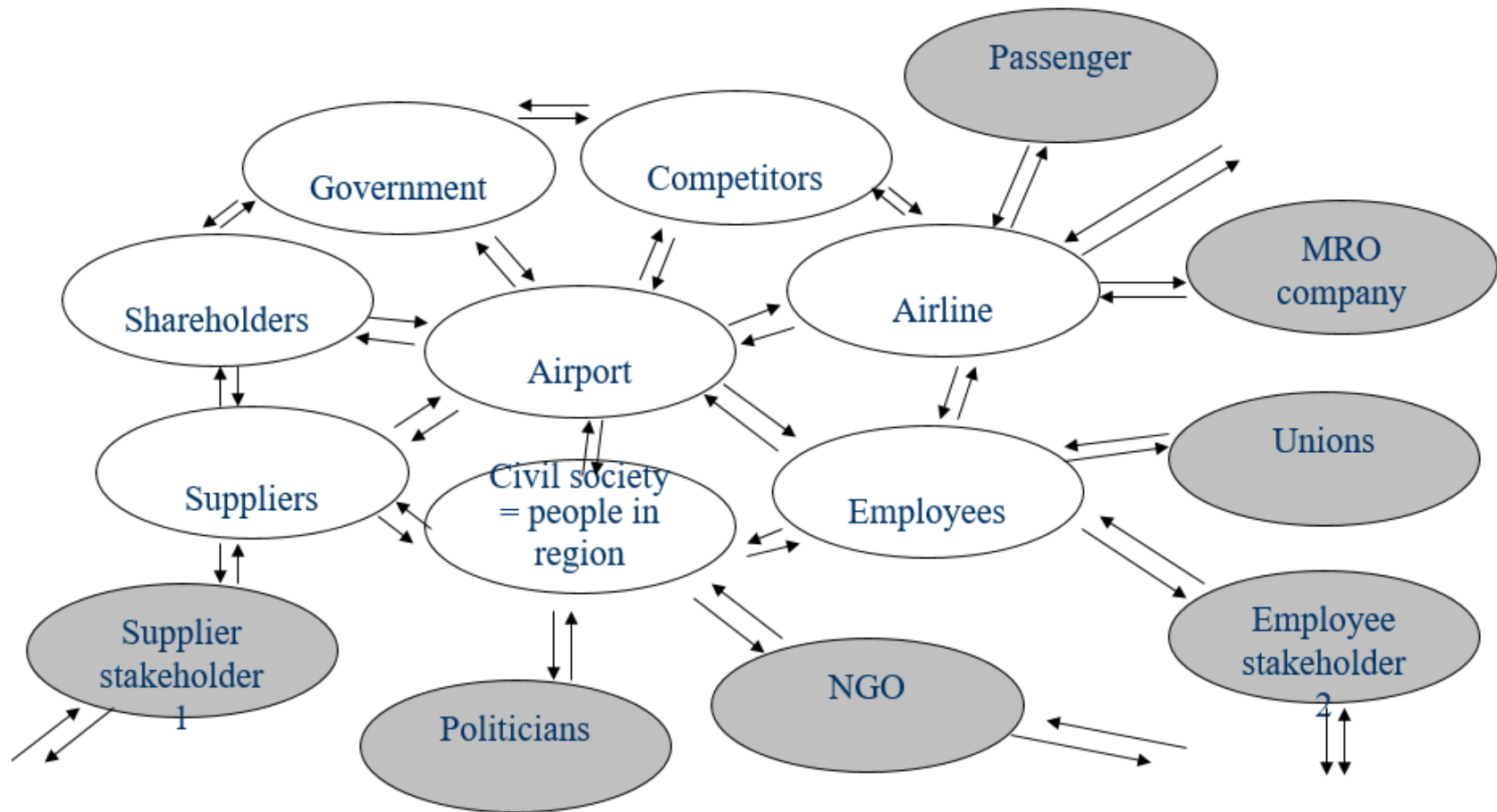


Figure 3-1: General cause and effect relationships



Communication as add-on

Theoretical background a: Stakeholder theory



Communication as add-on

Theoretical background b: Corporate Citizenship

- The base of Corporate Citizenship (CC): Corporate Social Responsibility (CSR)
- CSR: Act according your responsibility!
(it's not about sponsoring!)
- Is the airport responsible for noise?
→ noise mitigation programs

- CC = extended view of CSR
- Act as a good social citizen!
→ Treat your stakeholder as a partner, not as a mean for profit
 - Responsibility vs. Relations
 - Action vs. Atmosphere
 - Power vs. People



Communication on the B2B-level

- Communication with the regulator
 - Regulator = owner
 - => conflict of interest
 - Regulator depending on elections
 - => changing strategies over time
 - Case of Fraport
 - introduction of a noise contingent
- Communication with the airline
 - Consultation programs for landing fees
 - Setting the right incentives
 - ICAO Annex 16 chapter 3 + 4 (+14)
 - Fraport having 16 noise classes
 - Berlin 1st consultation about direct measuring



Communication with annoyed citizens

Historical experience

- Examples of the past:
- **Fraport** 1984:
“The runway West will be the last infrastructure investment ever for Fraport.”
- **Munich** June 2012:
Airport: “The 3rd runway will create a lot of new jobs.”
Opponents: “Bavarians don’t need more movements.”
- **Air Berlin** case October 2017,
minister Dobrindt: “We need a national champion.”

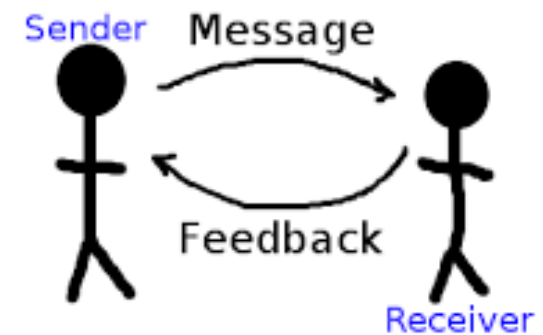


Communication with annoyed citizens

Lasswell's Communication Model

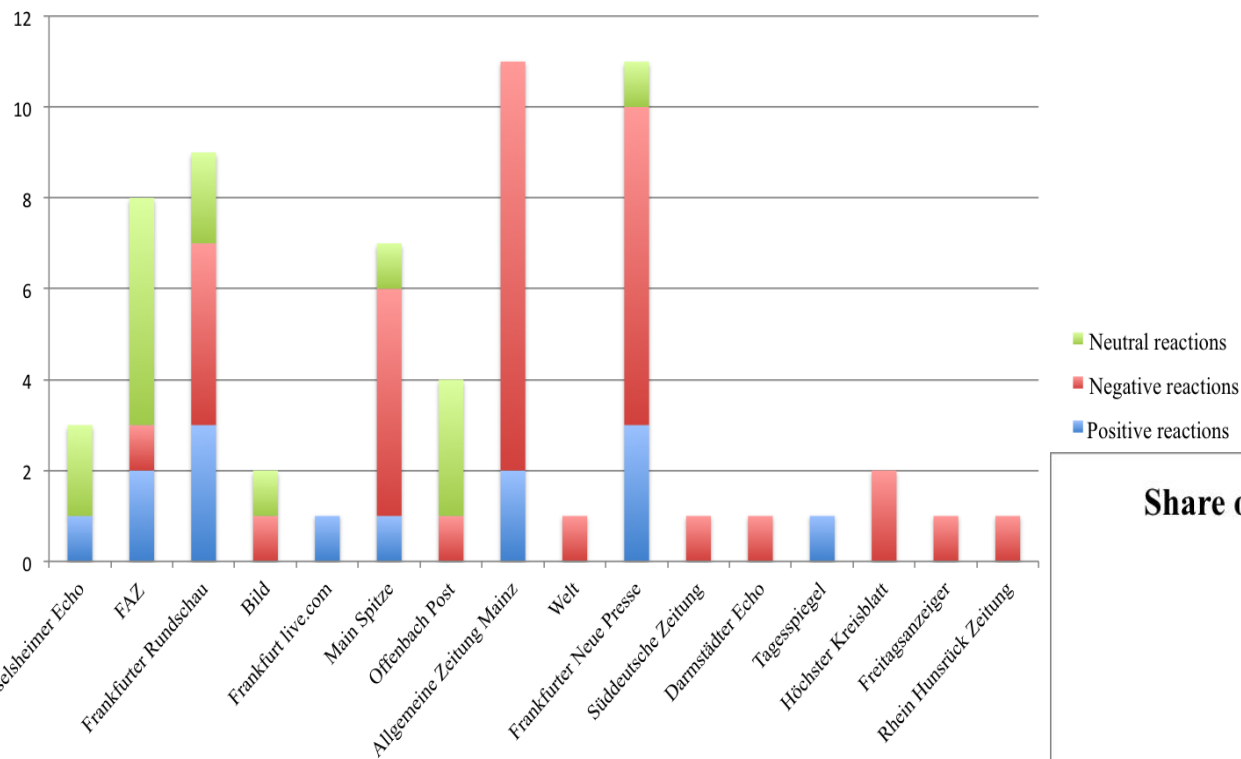
communicator	audience (intended, other)	communication goal (motivation)	channel	message	effect
...

- Who (communicator → communicator analysis)
- says what (message → content analysis)
- to whom (audience → audience analysis)
- in which channel (medium → media analysis)
- with what effect? (effect → effects analysis)

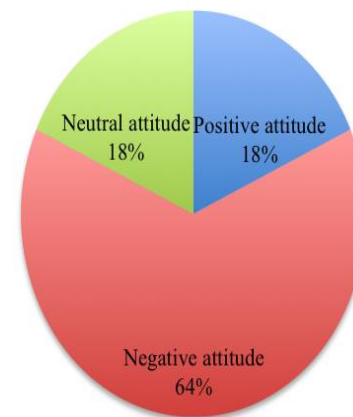


Communication of airports: Media analysis

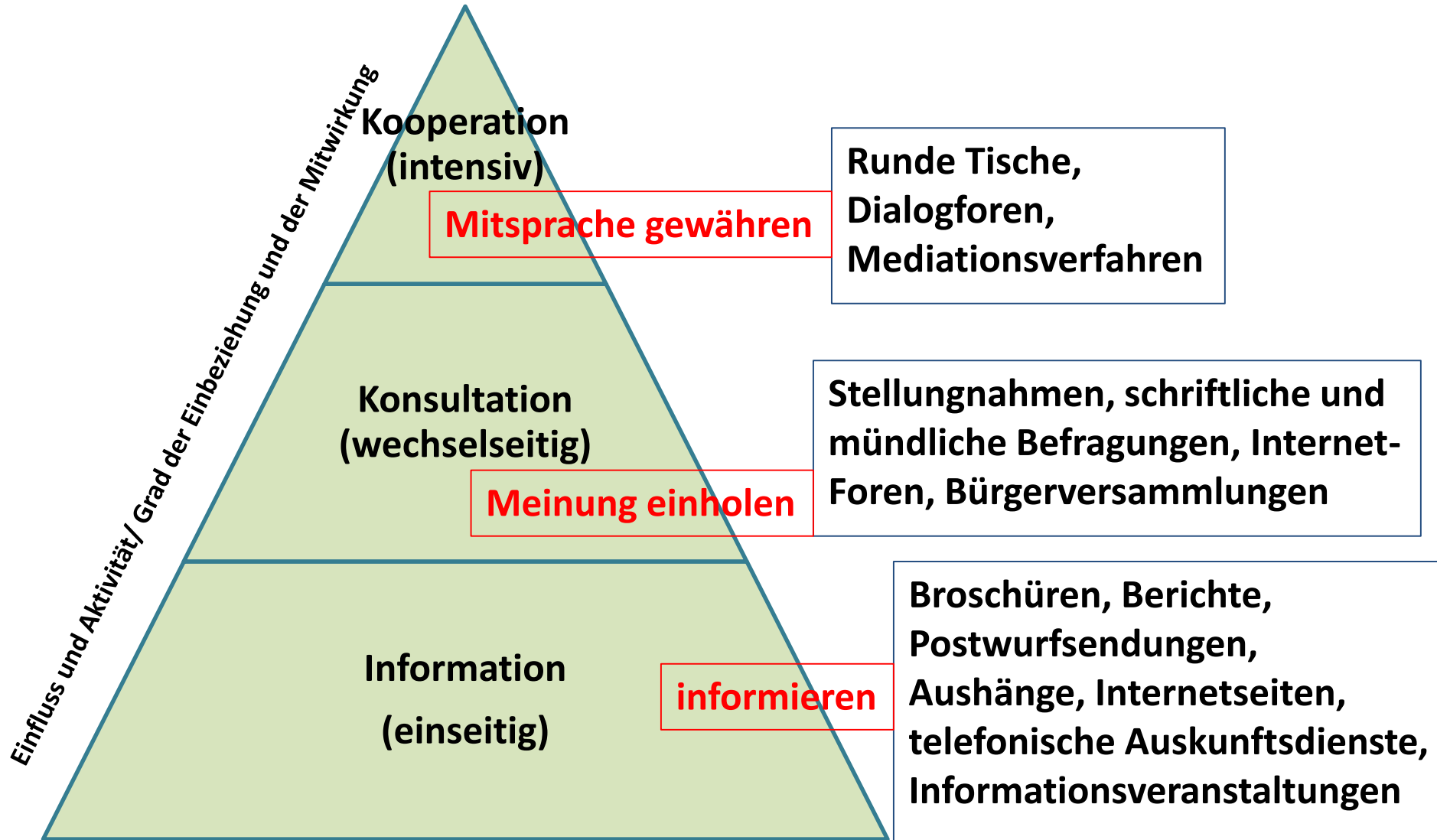
Total number of reactions in newspapers



Share of attitude created by reactions in the media



Communication with citizens: ideas of a guidance



Quelle: im Vergleich BMVI (2012): Handbuch für eine gute Bürgerbeteiligung, S.13



Communication with citizens: ideas of a communication model

AIRCRAFT NOISE ANNOYANCE

SEGMENTATING RESIDENTS ACCORDING TO TRAIT & LEVEL OF ANNOYANCE

POSITION & PROMOTE
VIA MARKETING MIX

Airport surrounding Community impacted by noise

Segment Market Audience
according to no of fly-overs or max noise levels & perceived noise effects

Internal & External Environment Analysis

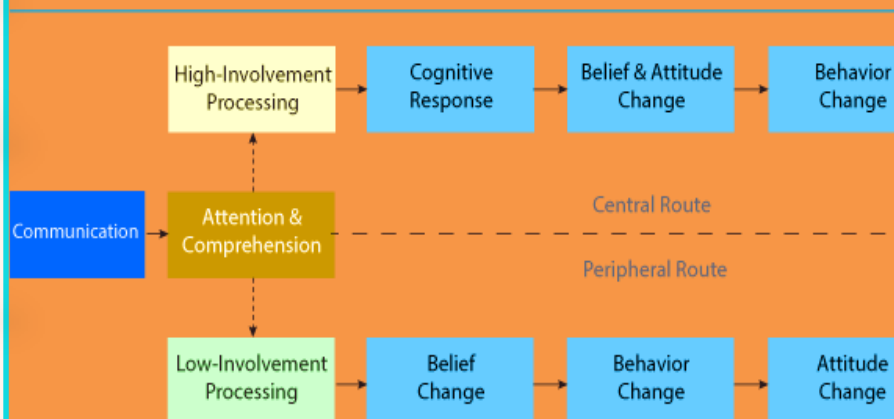
Strong Non-Acoustics:

- Feeling unfairly treated
- Having no influence over results of airport decision processes
- Lacking trust for authorities
- Not agreeing with opinion that airport is important for the economic system
- Believing aircraft noise is bad for health, individual and for the residents in general

TARGETING/TAILORING

NON-ACOUSTIC FACTORS THROUGH COMMUNICATION

Elaboration
Likelihood Model



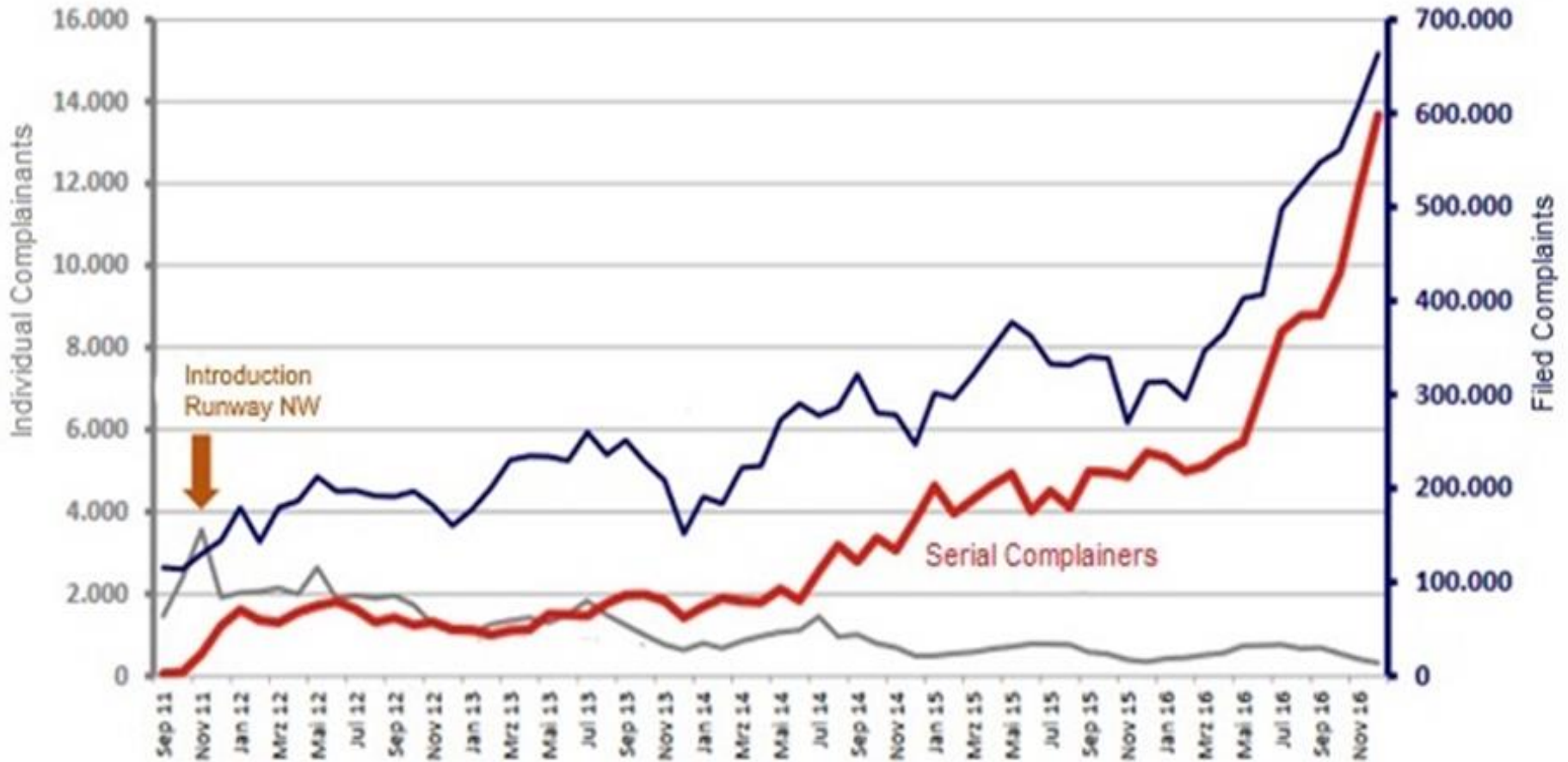
Airport Primary Interventions Campaigns:

- Informing/Encouraging
- Educating / Empowering
- Serving / Supporting
- Designing / Adjusting Non-Acoustic Factors
- Controlling/Regulating Environmental Factors



Special case of serial complainers

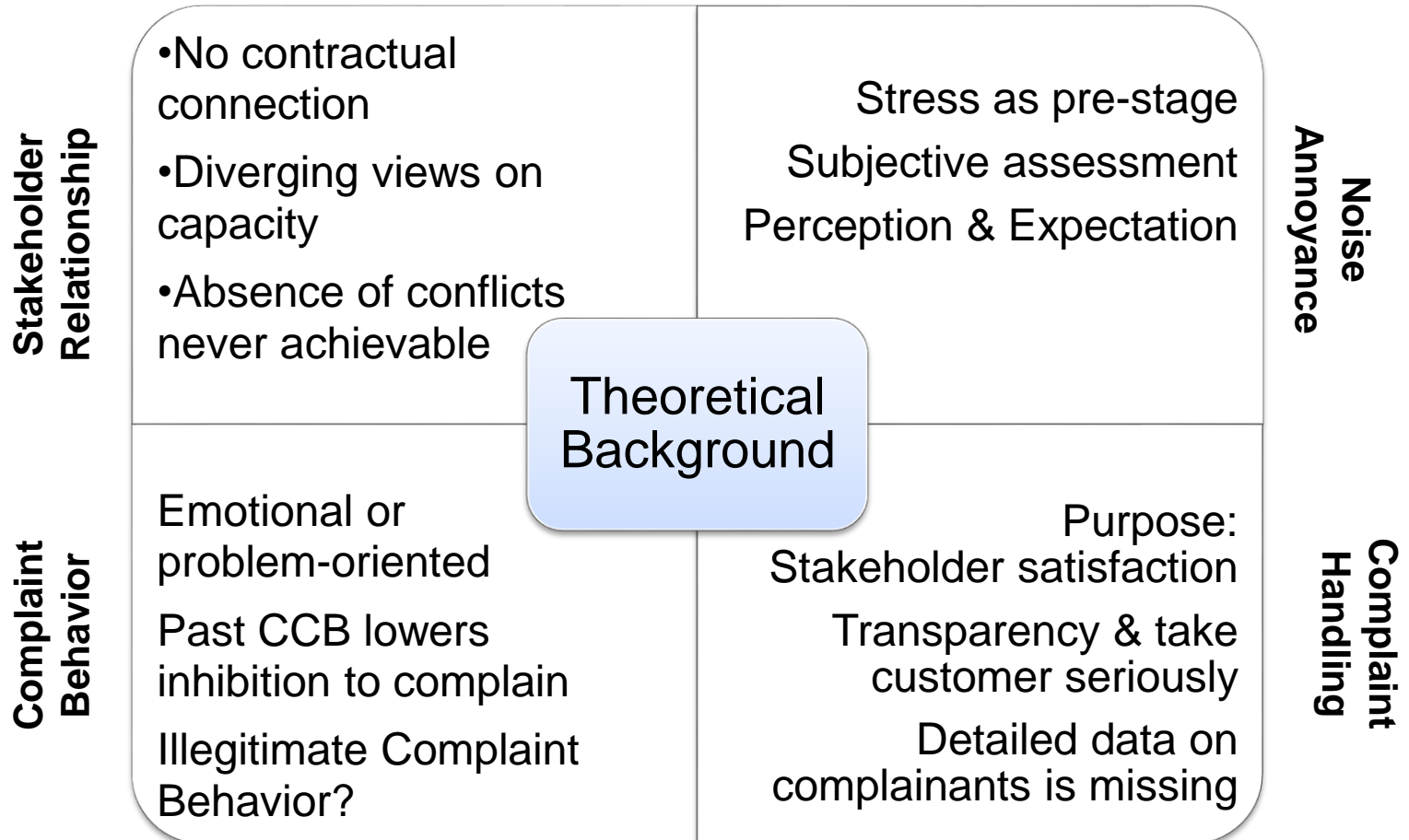
Complaints vs. Complainers in Frankfurt



Connection of noise event and complaint partly missing



Special case of serial complainers



Conclusion

Basis of a good neighborly relation:

- ➔ fair treatment
- ➔ early information
- ➔ choosing the right channel (dialogue oriented)
- ➔ participation when ever possible
- ➔ balancing of interests



Many thanks!

Further questions:

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