



Final Report

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Project title: Risikokommunikation zum Stromnetzausbau – Konfliktanalyse von internationalen Erfahrungen und Schlussfolgerungen für eine Anticipatory Governance in der Schweiz

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1. State of Research.

1.1 Research activities performed, milestones and deliverables accomplished

The increasing electric energy consumption and the growing production of renewable energy have created a national and international need to expand the high voltage transmission grid. However, the siting of energy facilities such as transmission lines, but also power plants or wind farms has become increasingly difficult (Inhaber, 1998; Vajjhala & Fischbeck, 2007). The construction of new high voltage transmission lines has been a highly controversial topic in the public discussion for a number of years. One concept to explain the intense local opposition against such energy facility projects is the acronym NIMBY (not in my backyard) or even BANANA (build absolutely nothing anywhere near anything) that refers to the asymmetric distribution of the negative and positive impacts of siting project. However, Vajjhala and Fischbeck state that the siting problem "is more complex than these expressions suggest" (Vajjhala & Fischbeck, 2007, p. 650).

Model Dimension	North Atlantic or Liberal Model	Mediterranean or Polarized Pluralist Model	North/Central Europe or Democratic Corporatist Model
Country in the sample representing that model	United Kingdom, United States	France, Italy	Austria, Germany, Switzerland
Patterns of conflict	Moderate Pluralism	Polarized Pluralism	Moderate Pluralism
Government	Majoritarian	Both: Consensus and majoritarian	Consensus
Role of state	Liberalism, weak welfare state	Strong involvement in economy	Strong welfare state
Newspaper Industry	medium newspaper circulation; early development of mass-circulation commercial press	low newspaper circulation; elite politically oriented press	high newspaper circulation; early development of mass-circulation press
Political orientations of media (political parallelism)	neutral commercial press; information-oriented journalism	high; commentary-oriented journalism	historically strong party press; shift toward neutral commercial press

Table 1: Three models of media systems and political systems (adapted from: Hallin and Mancini (2004))

Little is known about the media debates and controversies about the construction of high voltage transmission lines. This research gap was closed in this project by means of an international comparative media content analysis (press, user-generated content in the Internet) with data from seven countries (Austria, Germany, Switzerland, Italy, France, UK and the USA). These countries were selected because they share on the one hand a number of features: They are all western democracies that need to expand their electricity transmission grid, but are at the same time also confronted with considerable resistance against

such expansion projects. On the other hand, there are also important differences with regard to the role of the state and the media (see Table 1).

The research design was divided in a longitudinal study to detect conflicts in each country and a cross-section study to analyze online articles. Different methods have been used to suit the number of documents and the level of detail required for each of these studies: (i) a computer assisted content analysis categorized a large number of documents obtained through a keywords' research on Factiva and Nexis, providing global trends over a ten years period. (ii) Manually coding a random sample of these articles for the country studies, helped obtaining insights into relevant debates in the examined countries and shedding light on the major debates within the society. As a supplement we have also run interviews with major stakeholders and experts to discuss these conflicts.

1.2 Selected Findings

Figure 1 shows a result that is similar in all countries: The media represent those stakeholders that support new power lines (e.g. energy producers, networks etc.) more often and rather positive. On the other hand, organizations and individuals that are in opposition of these infrastructure projects receive considerably less media attention and are portrayed more negatively.

The media don't cover all the potential risks and opportunities evenly, but rather focus on political aspects (regional dimensions) and economic impacts. Risks for the environment or for humans are mentioned only in small proportion of the newspaper articles. Nevertheless, the sentiment in the media coverage is more positive if the construction of new powerlines is linked to the issue of renewable energy that is transported with these powerlines.



Figure 1: Percentage of mentioned stakeholders in all articles (source: own data from cross-section study (manual coding); n=227)

The two communication arenas (mass media, online-comments on news sites) show a clearly distinct profile: The traditional mass media represent new powerlines from an overall positive perspective. Organizations that are promoting the construction of new powerlines (e.g. network operators, energy producers and public authorities) receive higher levels of mass media attention and a predominantly positive evaluation. On the other hand, individuals and organizations that are opposing new powerlines are less often present in the media and their role in the debate is mostly negative. However, the opponents are more active in the online communication and play a dominant role in the online-comments on news sites

1.3 Conclusions

What conclusions can be drawn from these findings for both scientists and stakeholders? And what are the limitation of this study? These questions will be discussed in the following para-graph. Furthermore, each point will be complemented with suggestions for further research.

An obvious limitation of this study was the focus on a specific infrastructure technology (high voltage transmission lines). This contrasts with the generic nature of the hypothesis discussed in section 6 that could be applied to many other infrastructure technologies from the energy sector (e.g. wind parks, solar parks, dams for hydroelectric power, nuclear waste repositories etc.) or transportation sector (e.g. highways, railway lines, airports etc.). Infrastructure technology projects from these sectors share the feature of a long-term development that does not take a few weeks or months, but rather several years, if not decades. This long duration of infrastructure project is a challenge for most social science researchers that are running research projects within a much shorter time frame (some months or 2-3 years at the maximum). However, expanding and comparing this given analysis of the media debates about high voltage transmission lines with debates about other infrastructure technologies would be instrumental for the identification of the - supposedly - many commonalities and the few differences. Studies that aim at the comparison of several infrastructure technology debates would be instrumental for developing a more comprehensive picture and for the development of an appropriate social science theory that goes beyond the level of the NIMBY-metaphor.

Another limitation in this study was the concentration on a content analysis of mass media and user-generated content (online comments) as the main method for gathering empirical data. What are the effects of the relatively positive media coverage on the attitudes of individuals towards new high voltage transmission lines? This research question is of high relevance, but could not be discussed in this paper due to the focus on the media coverage and the high costs of running an internationally comparative survey. It seems plausible that a positive media coverage increases the likelihood of a positive evaluation by the media audience, but given research on media effects has shown that media effects differ strongly from issue to issue and are following complex patterns (Bryant & Oliver, 2009; Petty et al., 2009). Therefore, additional research is needed to answer the question about media effects that requires a multi-method design, say a combination of media content analysis and survey research.

An additional field of research that could not be addressed in this study due to limited resources was the interplay between the communication strategies of the stakeholders and their effects on the media representation. The media and communication strategy of the various stakeholders are an important intervening factor (e.g. press releases, direct negotiation etc.) that was not investigated in this study. Follow-up research projects should have a closer look at these communication strategies and gather additional data for a media input-output analysis.

The expert interviews gave some hints that the information and communication efforts of the supporters are appreciated also by the opponents as positive steps in the right directions. Several interviewees stressed the fact that one important goal of their activities was simply to get access to all the information (e.g. planning documents, selection criteria for technical options, technical and scientific data that was used as a base of decisions etc.). This call for transparency and open-ness seems to be heard and to be taken more seriously in the countries with more decentralized political structures and with a consensus government (e.g. Austria, Germany and Switzerland) than in the centralized countries (France, Italy, United Kingdom).



1.4 References

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2. Annex

2.1 Publications

Presentation at scientific conference:

- Dahinden, Urs; Francolino, Vincenzo; Weichselbraun, Albert (2015): Risikokommunikation zum Stromnetzausbau – Ergebnisse einer international vergleichenden Inhaltsanalyse von Massenmedien und Online-Medien (engl. Risk communication on new powerlines). SACM-SGKM Schweizerische Gesellschaft für Kommunikations- und Medienwissenschaft. Bern, 14.03.2015.

Publication:

- Dahinden, U., Weichselbraun, A., Francolino, V., Odoni, F., Beck, S., & Hellstern, M. (2016 (submitted)). Risk communication on high voltage transmission lines - An international comparison of media representations.

Date and Signature

May 1, 2016 (Urs Dahinden)