## From Knowledge (About the Future) to Action: Expertise and Decision-Making Regarding the Environment, Health, and Security in the 20<sup>th</sup> and 21<sup>st</sup> Centuries

## Conference at the University of Freiburg, October 2017

## Organisers

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## **Call for Papers**

Complexity, risk and uncertainty have become the signature of our time, and it seems that the euphoria about the future and optimism regarding long-term strategic planning that characterised recent decades have been replaced by pragmatism and a concern for viability as well as by ideas of robustness, adaptability, and resilience in a variety of social realms. But when did this new present begin – and how can it be more precisely described?

The social sciences and humanities have in recent years begun more seriously addressing such questions. This interdisciplinary conference will contribute to this discussion by raising hitherto neglected questions regarding the extent and ways in which scientifically and rationally generated future-oriented knowledge actually was and is relevant to the economy, politics, and organisation of society. For this purpose we seek to bring together scholars discussing these and related questions from historical and contemporary perspectives. The conference's aim is to examine general tensions between future-oriented knowledge and concrete actions as well as to identify long-term developments and turning points regarding the transformation of knowledge into action.

Experts, scholars and scientists consistently stress the limits and boundedness of the knowledge they generate, and they generally accompany its presentation with remarks on the conditions that more precisely define its validity plus specific qualifications. However, decision makers in the economy, politics, and other aspects of social life have to make decisions in the face of complexity, uncertainty, and risks and without knowing about long-term effects and consequences. Since they need information in order to be able to take decisions, institutions and actors seek to obtain reliable knowledge regarding future developments. In fact, they attempt to turn the inherent uncertainty and incalculability of the future into something predictable and tangible with the help of rational and scientifically sound approaches.

Various conferences and publications have already examined the generation of knowledge about the future and the change in related techniques, instruments and practices in the past and the present (*e.g.* oracles, prognostics and forecasting, simulation and modelling). However, the interface between knowledge and action, between expertise and decision making practices (in governments, administration, enterprises, NGOs and international organisations), has thus far rarely been investigated. It is therefore exactly this transformation of knowledge into action which is the focus of our conference. We are interested in: the specific paths leading from knowledge to decisions and actions; the transitions from scientific knowledge to applicable expertise; the conversion of knowledge (and ignorance) about the future into orientational knowledge; and the emergence of expert recommendations and supporting tools for decision making as well as their actual utilisation by decision makers. Our conference seeks to focus on three areas in which knowledge and acting, expertise and decision making are important and complex issues: the environment, health and security. Firstly, the management of natural resources – forests, water and farm land – as well as related current challenges like climate change or the protection and preservation of biodiversity will be analysed. Secondly, the sector of human health and the management of medical data will be investigated, for instance by addressing the handling of prognoses, threshold values or precaution and prevention strategies. Thirdly, the admittedly broad field of security will be examined by focusing on large-scale industrial systems and infrastructures with regard to aspects of security (protection of the system) and safety (maintenance of operations).

We therefore invite the submission of abstracts for papers that address the following questions from a variety of theoretical and empirical perspectives:

- When and how do authorities and decision makers in politics, the economy or public administration acquire or refer to abstract, scientifically generated future-related knowledge and how do they adapt this knowledge to their particular needs and interests? How do those decision makers deal with conflicting scientific prognoses, estimations or expertise?
- How do actors from science and management/public authorities communicate with each other? Which different strategies and motifs, even sentiments, in their handling of the future can be distinguished on both sides? How do they interact and mutually influence each other?
- Do experts and decision makers pay attention to the transitional processes between the levels of knowledge generation, decisions and actions and, if so, how do they make this step a subject of discussion?
- What shapes also from a historical point of view do the institutional interfaces take between knowledge and action regarding communication structures, workflows, involved actors and institutions, and responsibilities?
- Which ways of dealing with uncertainty, ignorance or lack of knowledge can be determined in scientific recommendations and decision support systems and how is the problem of future-related knowledge and uncertainty dealt with in decision-making contexts?
- Which rhetorical elements, graphical or technical tools and instruments are used in decision-making contexts in order to represent, illustrate and model future-related knowledge?
- How do decision makers interpret and process images and constructions, models and fictions regarding the future?
- Which distinctive normative concepts, guiding principles, paradigms or ideologies relevant to action are significant in science as well as in decision-making contexts?
- In which way do non-rational factors and dynamics (such as emotions, collective moods or power structures) influence political decision-making processes as well as the production of anticipative knowledge itself?

Prospective presenters are invited to submit an abstract of their papers (250-300 words) and a short CV (max. <sup>1</sup>/<sub>2</sub> page) by 20 January 2017 to unsicherheit@ife.uni-freiburg.de.