



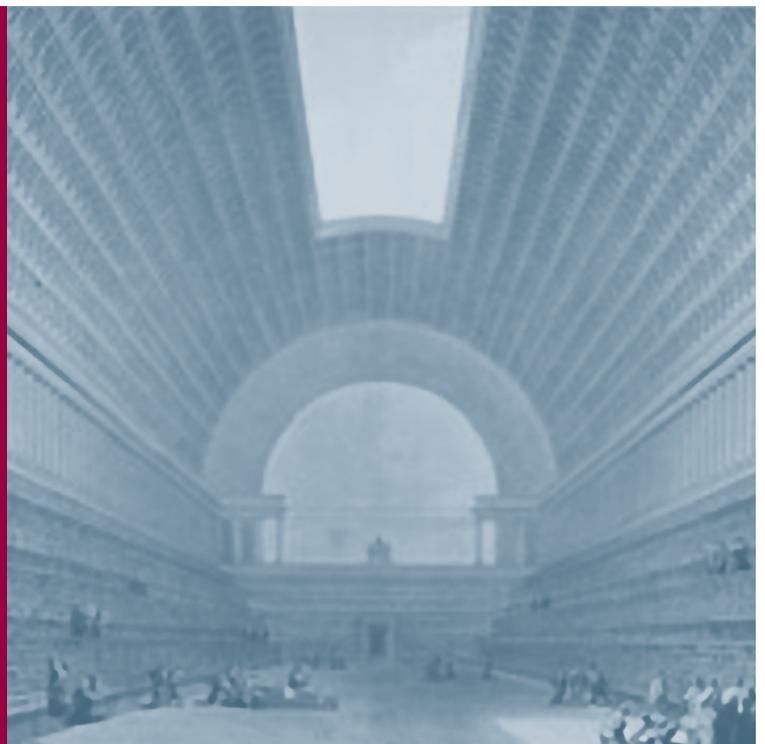
OFFICE OF TECHNOLOGY ASSESSMENT
AT THE GERMAN BUNDESTAG

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Participative technology assessment processes and parliamentary policy advice

Summary

October 2004
Working report no. 96





SUMMARY

The present working report explores the possibilities and limits of new forms of considering science and technology policy issues in collaboration between science, politics and the general public. The report explores the sociological debate about redefining the societal role of science, reviews available experience with new forms of cooperation between experts, members of the general public and policy decision makers, and uses this as a basis for looking into ways of ensuring that participative processes become more incorporated into parliamentary consideration of issues of science and technology policy.

CHANGING ENVIRONMENT FOR POLITICAL ACTION

The growing societal significance of science and technology is going hand-in-hand with a change in the frame conditions for political decision making. The current debates on redefining the societal role of science must be seen in the context of the decades-long public controversies about technology which have accompanied scientific and technological change, and which question critically not only the ecological and societal consequences of new technological developments, but also the legitimacy of established political decision making processes. Growing attention by a critical public to issues of scientific and technological policy is being accompanied by obvious limits to government's power to control them. Scientific and technological progress means that the framework for government action and the problems that have to be tackled are becoming increasingly complex. This marks the limit for hierarchical forms of government control, which are accordingly being replaced by cooperative ways of formulating policy. The state is increasingly becoming involved in negotiating systems with strong societal actors which it can only influence through relatively »soft« instruments. In addition, recourse to established expert knowledge is becoming doubtful as a source of legitimacy for action by the state. The growing importance of scientific expert opinions for virtually any every-day practical and policy decision is exposing the inherent uncertainty and ambiguity of scientific knowledge with regard to practical decisions, and particularly so when assessing the risks and consequences of technological innovation.



PARLIAMENTARY POLICY ADVICE AND THE PUBLIC

As a reaction to this changing environment, we are seeing approaches to integrate the general public more into policy decision making processes, the aim being to improve the responsiveness of policy makers towards the (diverse and contradictory) societal demands expressed in controversies over technology. The example of the Enquete Commissions of the German Parliament and the establishment of parliamentary TA offices in Europe shows how parliament is making increased use of scientific policy advice and also developing approaches to include the general public more in policy decision making processes.

- > Most of the 22 Enquete Commissions of the German Parliament established up to 2003 were concerned with issues of scientific and technological change. Since the 1980s these commissions have become far more open towards the affected and interested societal groups. For example, in the debate on establishing the Enquete Commission into genetic engineering - a highly controversial issue in society - in 1982, the commission's terms of reference included for the first time the task of promoting dialogue between science, politics and the public. The fact that this has become increasingly natural is shown by the terms of reference of the Enquete Commission into »Law and ethics in modern medicine«, established in the 14th legislative session. Under these terms, the commission's tasks included intensifying public discourse, taking into account affected groups, institutions, associations and the churches.
- > The creation in Europe of TA offices attached to national parliaments and to the European Parliament in the 1980s and 1990s can be seen as a direct response to the public's claims as expressed in controversies over technology. One goal was to improve information management for the increasingly complex scientific and technological issues. Another was always to find an answer to the changing relationship between politics and society and the lack of confidence in scientific expertise.

PARTICIPATIVE PROCEDURES OF TECHNOLOGY ASSESSMENT

Most recently, efforts to translate the guiding principle of sustainable development into concrete policy objectives and measures have also led to thoughts about new forms of cooperation and dialogue between science, politics and the public. The realisation that a comprehensive assessment of new technologies is dependent on including the values and interests of societal groups in particular, has led technology assessment to try out a large number of participative forms of evaluating technology, in which experts, lay persons and political decision

makers cooperate in various different ways. The variety of processes that have been tried out can be divided into two groups:

- > Stakeholder procedures are processes of dialogue with representatives of societal groups, which can be used in various phases of a TA process, for example in resolving the priority areas to be studied, developing policy options to solve problems, or discussing and evaluating available scientific knowledge on the risks and opportunities of using a specific technology. In concrete situations, e.g. planning procedures for a major project, via round tables an effort is made to find a solution which is acceptable to all parties by exploring possible compromises and compensations through negotiation. When treating general questions of evaluating technology without local relevance, e.g. the opportunities and risks of genetic engineering, the emphasis is on an argumentative procedure. The goal here is to address problems in policy decision making resulting from contradictory scientific data or problems of normative evaluation, and seek, through dialogue, to find if not a solution, at least the causes and structure of disagreement, and to improve the normative and cognitive basis for decision making.
- > Participative procedures which create a consultative role in technology evaluation for non-organised members of the general public are also an established part of policy consultation on scientific and technological issues in several countries. A specific model of participative techniques for lay persons is the consensus conference, which has been practised in Denmark since the mid-1980s. In this, a group of randomly selected citizens begins by questioning experts in detail and then proceeds to deliberate on issues of scientific and technology policy, followed by formulating their own »citizens' report« directed at the politicians. The goal of this technique is to evaluate available scientific information and diverging assessments of different societal groups, from the point of view of the »well-informed« citizen as a representative of the public at large.

GOALS AND RESULTS OF PARTICIPATIVE TA

Such new forms of dialogue between science, politics and the public are not seen as replacing decision making processes by political institutions that have been legitimated by election. Instead, they are directed at the processes of societal and political consultation which precede the decisions. In terms of democracy theory, they constitute a deliberative element in a representative democracy. As available experience shows, such techniques cannot be expected to deliver a consensus on solving societally controversial issues. However, they can act as an additional in-



terface between society and political institutions, contributing to opening up political processes and improving the responsiveness of government institutions to the concerns expressed in the controversies over technology. In this, we cannot expect the results of participative processes to be directly implemented in practical policies, and the results of participative consultative processes cannot be formally binding for policy makers. However, to serve as a link between politics and the general public and as a focus for general public debate on scientific and technological issues, such processes must have visibility in the debates, which is generally provided by the institutional ties with or obvious encouragement by the legislature or executive.

Further, the restructuring of the relationship between science, politics and the public which is implicit in participative procedures does not imply a new type of science in the sense that non-scientific or extrascientific criteria are used in addition to scientific criteria to determine the validity of scientific statements. Instead, we are looking at specific cooperation between experts and lay persons on solving societal issues and problems, not those issues which are internal to science.

PARTICIPATIVE TA AND PARLIAMENTARY POLICY ADVICE

Participative technology assessment processes play a prominent role in a number of European countries (Denmark, the Netherlands, Switzerland) especially in policy advice for the national parliaments. In their function as fora for communication between different societal groups, they are particularly suitable for providing additional information for parliamentary advice, and to give added representation to fears, opinions and attitudes of the general public as a whole or of groups of citizens. In this way, parliamentary advice and societal discourse can be linked in a communication process which supports the function of parliament as a forum for societal debate.

The model established in 1990 at the German Parliament in the form of the Office of Technology Assessment (TAB) corresponds in practice more closely with a type of policy advice which has an expert and scientific focus.

However, when the TAB was established at the German Parliament, this was not only with the thought of providing scientific assistance to parliamentary deliberation, but also with the desire to strengthen the German Parliament as a forum for debate and decision making on central scientific, technological and societal developments. The experiments of the Enquete Commission »Legal and



ethical issues of biomedicine«, with offers of dialogue directed at the general population, show that greater involvement of societal groups and lay persons in advising the German Parliament is seen as politically desirable, particularly when scientific and technological developments are involved which result in difficult arguments about the central values and goals of society. More extensive opening to the public of the TA processes at the German Parliament has resulted recently in the public presentation of the results of the studies carried out by the TAB on behalf of Parliament, although it has not yet taken the form of integrating the public in the TA process itself. However, the structure of the advisory model chosen by the German Parliament is still inherently open for participative techniques to be integrated into it.

The Office of Technology Assessment at the German Bundestag is an independent scientific institution created with the objective of advising the German Bundestag and its committees on matters relating to research and technology. Since 1990 TAB has been operated by the Institute for Technology Assessment and Systems Analysis (ITAS) of the Karlsruhe Institute for Technology (KIT), based on a contract with the German Bundestag



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