

# How to manage technology controversies?

## In brief

- In the past, politics faced problems with controversies over technologies such as nuclear energy or, later on, biotechnology.
- Technology controversies usually do not follow the traditional political logic of 'left' and 'right'. They often arise over the acceptability of risks or over ethical concerns raised by technological innovation.
- Currently, controversies over new technologies take place not so much in the public but amongst expert panels and scientific communities. Nanotechnology or biomedicine are relevant examples.
- To 'democratise' the way we deal with new technologies, politics should provide appropriate deliberation and public dialogue formats.

## What is it about?

Technology controversies have shaped modern societies profoundly. Conflicts over nuclear energy or biotechnology put pressure on political institutions and routines of decision-making. New policy-relevant actors such as NGOs developed out of the protest movement. These groups underwent a process of professionalization and, mobilising their own scientific expertise, successfully participated in the struggle over technology implementation. At the same time, 'green parties' dedicated to criticising the Western model of technological innovation and economic growth were founded throughout Europe.

Technology controversies over, primarily, risk and safety have been important triggers for these developments. Concerned citizens asked, for example: Do genetically modified organisms pose risks for the environment or human health? What is the risk of a maximum credible accident?

Many of today's technology controversies, in contrast, develop over ethical concerns rather than over fears of risk. These controversies are carried out using ethical arguments and mobilize normative stances. This is what we call the 'ethicisation' of technology controversies. Questions arise such as: May we do what we are able to do? Where should we draw the ethical boundaries for scientific research? Recent examples are the controversies over stem cell research or over pre-implantation genetic diagnosis. These controversies are rather abstract since the issues hardly relate to 'lifeworld' experiences; therefore, they rarely raise concerns or dismay with a public that is not affected. As a result of a lack of public interest or concern, these controversies primarily take place in expert panels and amongst the scientific community. Citizens do not mount the barricades but get involved, if at all, in public dialogue events initiated and organised by the researchers themselves.



Protests against biotechnology (c) DDAP

The key question is: If ethics challenges and problematizes science and technology, what does it imply for politics, for science itself, and for the public? Specifically: Who has a say in these conflicts? What kinds of knowledge and expertise become relevant? How can political decisions be justified?

## Basic data

<b>Project title:</b>	Sociology of bioethical expertise
<b>Project team:</b>	Bogner, A.
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## Key results

- Efforts are made to actively involve the public in the process of conflict negotiation. A variety of participatory procedures aim to raise the public's interest and to involve people in deliberation processes.
- To advise politics in controversial technology issues, national ethics councils get institutionalised. As a rule, these interdisciplinary advisory boards represent a variety of world views mirroring the pluralism of values in modern societies. Therefore, the deliberations and negotiations within these commissions often result in policy recommendations on the basis of a well-structured and justified disagreement.
- There is a new source of political legitimisation: Bioethical decisions are subject to the individual's conscience and value preferences. This also applies to political decisions: If Parliament votes on questions relevant to bioethics, whip is often lifted. Mandatory support for a political party's standpoint or reference to scientific expertise only would appear inappropriate.



Citizen conference on stem cell research in Berlin

Obviously, new constellations among science, politics and the public develop throughout the 'ethicisation' of technology controversies. Science is forced to take the public into account. Lay participation is strongly encouraged when values are at stake. In value conflicts, there is no good reason to exclude anybody from the deliberation process, because everybody is considered an expert in questions on values.

## What to do?

### The 'ethicisation' of technology controversies challenges traditional politics in different ways:

- Especially in highly controversial issues potentially subject to state regulation, more parliamentary debates are needed. Parliament is an important place to acquaint the public with difficult issues. However, in Austria there have been no parliamentary debates on bioethical issues so far.
- Advisory bodies should mirror the value pluralism in modern societies; otherwise, policy recommendations would not be plausible. When setting up such bodies, politics should ensure a variety of moral standpoints and scientific disciplines to be represented. Expert bodies should also help to initiate a public debate.
- Public debate should be encouraged and carried out at several levels. Participatory procedures as developed by technology assessment institutions are of particular importance. However, it is essential to clearly define the aims associated with a specific procedure; to give the people a chance to develop new perspectives and arguments; and to involve the political addressees to improve the impact of participation experiments.

## Further reading

A. Bogner (2011): Die Ethisierung von Technikkonflikten. Weilerswist: Velbrück Wissenschaft

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