

# Technology Assessment in Switzerland



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## The TA-SWISS Foundation

This general overview primarily addresses (potential) project groups of the Foundation for Technology Assessment TA-SWISS, members of the foundation board and the steering committee, supervisory groups as well as other individuals who are particularly interested in the work of TA-SWISS.

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# 1

## Institutionalisation of TA in Switzerland

### What is technology assessment?

Technology assessment, or TA, aims to comprehensively address the societal implications and controversial aspects of new and emerging technologies. TA examines the viability of new technologies and commissions scholarly assessments (TA studies) to shed light on the potential positive and negative impacts of a new technology. TA takes political, social, ethical, legal, economic, technical and ecological aspects into consideration and is therefore interdisciplinary in nature. Technology assessment offers an advisory service for policymakers, academic institutions and the general public.

As a rule, decisions surrounding technological innovations and their applications are made by the specialists who developed them. But not everything that is technically feasible is necessarily socially desirable or environmentally compatible; TA therefore endeavours to democratise decisions regarding science and technology. In addition to preparing objective, multi-dimensional and independent assessments to inform political decision-making processes, TA also is responsible for engaging the general public in the debate on new technologies. For this reason, TA relies on participatory methods.

The purpose of this approach is to involve the various interest groups and the general public in decision-making processes as early as possible and to take related questions, concerns and expectations regarding technology policy into account.

TA develops various tools to promote the democratisation of science and technology policy, including scenario planning, future workshops, focus groups, public forums, consensus conferences and round table discussions.

## **History of technology assessment in Switzerland**

The history of institutionalised technology assessment began in 1972 with the establishment of the Office of Technology Assessment (OTA) in the United States. Taking OTA as a model, numerous European countries (e.g. Denmark, Germany, the United Kingdom and the Netherlands) established their own TA institutions during the 1980s.

The cornerstone for a TA institution in Switzerland was laid in 1992. On the basis of various parliamentary procedural requests (Longet, No. 82.549, 1982; Braunschweig, No. 86.142, 1986), the Federal Council charged the Swiss Science Council to establish a Swiss system for technology assessment over the course of an initial four-year pilot project (1992–1995). During the pilot project, studies were conducted in the fields of biotechnology, ecology, energy, materials science, and information and communications technologies, as well as on technology assessment itself.

The Dispatch on the Promotion of Education, Research and Technology for 1996–1999 laid the foundation for the institutional stability and financing of technology assessment. In 1999, the Federal Act on the Promotion of Research and Innovation (RIPA, art. 11) anchored TA in Swiss legislation as a statutory mission. The Federal Council strengthened the independence of the Centre for Technology Assessment with the authorisation of the new regulations for the Swiss Science and Technology Council (SSTC), dated 5 July 2000. The regulation made provisions for the Centre to become part of the SSTC as an independent entity; this legal organisation was then formalised in a two-year contract between the Federal Office for Education and Science (FOES), the SSTC and the Centre for Technology Assessment in February of 2001. The FOES assumed administrative responsibility while the SSTC ensured scholarly and political oversight.

# 2

## The TA-SWISS Foundation

The Centre for Technology Assessment remained part of the Science and Technology Council from 1992 until the end of December 2007; in 2003, it was officially named TA-SWISS. An amendment to the Federal Act on the Promotion of Research and Innovation (RIPA), dated 5 October 2007, set out the legal basis for integrating TA-SWISS into the Swiss Academies of Arts and Sciences: since January 2008, TA-SWISS has been a centre of excellence of the Swiss Academies of Arts and Sciences. The duties and responsibilities of TA-SWISS were integrated into the roster of activities at the Academies, which are defined in the applicable Dispatch on the Promotion of Education, Research and Innovation.

To ensure its independence, TA-SWISS adopted the legal status of non-profit foundation on 1 September 2016. The TA-SWISS Foundation receives public financing for assessing the potential – positive or negative – impacts of technological innovations but is otherwise independent and in no way accountable to interest groups.

## Responsibilities

- Early recognition of new and potentially controversial technological fields and associated issues
- Development of solid scholarly, interdisciplinary, prospective and independent TA products (mainly studies) as a contribution to political decision-making. TA studies provide a comprehensive assessment and recommended actions for decisionmakers
- Organisation of participatory forums to allow the general public to make an early contribution to political decision-making processes. The results of these participative methods reflect a thorough and well-informed viewpoint of citizens
- Communication of results, in particular by writing summaries of the TA-SWISS studies, maintaining media relations and holding events such as conferences (also joint conferences with other organisations)

## Objectives

- Contribution to decision-making processes in technology policy
- Promotion of unbiased public debates prior to political deliberations
- Awareness raising among researchers both for the responsibility they bear and for an interdisciplinary perspective and approach
- Contextualisation of technical innovations and their broad societal impacts
- Strengthening of national and international TA networks

## Activities of TA-SWISS

The activities of the TA-SWISS Foundation can be divided into methodological groups: On the one hand, scholarly, interdisciplinary expert studies are carried out by external specialists; on the other hand, TA-SWISS organises participatory events.

### Interdisciplinary expert studies

The goal of TA-SWISS studies is to present a comprehensive overview of available knowledge on a new technology, including its impacts and side effects and technical and non-technical alternatives. Recognisable gaps in knowledge must also be identified. The conditions surrounding the application of a technology are as important as its direct and indirect implications. The overall results of the study should be predictive and as comprehensive as possible, and presented in a decision-oriented fashion.

Topics and issues to be addressed in the TA studies are prepared by the staff of the head office and submitted to the steering committee for a decision. An open call for study proposals is advertised in as many locations as possible to ensure that a sufficient number of good applications are received. Various project groups formulate proposals on the basis of the requirements laid out in the call for tenders; proposals must be submitted on time. The staff of the head office, members of the steering committee and, in some cases, other experts assess the proposals. Based on the results of this work, the steering committee commissions the study to a project group. Following project conclusion and after submission of the final report, the steering committee decides on approving the report for publication, as well as on the form of publication and the channels of communication (cf. chapter 4).

## Participatory events

The TA-SWISS head office developed its PubliForums to promote a platform for the general public, policy-makers and academia to debate controversial technological issues and perspectives and to provide the population with an opportunity to communicate their needs, expectations and concerns. PubliForums are a participatory TA method derived from the Danish consensus conference model; between 1998 and 2004, four PubliForum events lasting several days each were held. Today, TA-SWISS uses the more compact method of focus groups to include the population in the debate. As part of the Swiss Academies of Arts and Sciences, the TA-SWISS Foundation shares responsibility with the foundation Science et Cité for the strategic focus of participatory technology assessment.

Participatory TA aims to record the needs, wishes and concerns citizens have regarding a specific topic and to channel all conclusions gained from the participatory events into political decision-making processes. As a rule, the studies are conducted by external institutions (generally higher education institutions) on a contractual basis, while TA-SWISS bears responsibility for managing participatory TA projects. At the TA-SWISS focus events, interested citizens and experts have an entire day to engage in dialogue with each other; these events lay the foundation for discussing various aspects of a given technology at workshops. The results are compiled in a report that describes the events as such and puts on record the various considerations, hopes, expectations and concerns, as well as recommendations of the participants.

Information on previous and current studies and participatory processes are available on the website of TA-SWISS: [www.ta-swiss.ch](http://www.ta-swiss.ch).

TA-SWISS places great value on outreach: accessible summaries of the studies and meetings with members of parliament are part of this work, as are presentations of completed studies to the expert committees of both chambers of parliament, public events and symposia (cf. chapter 4). Current information is also available on the website of TA-SWISS.

# 3

## Stakeholders at TA-SWISS

### Foundation Board

The foundation board is responsible for overall management of the foundation. It authorises strategy decisions and is responsible for financial and staff-related duties. The foundation board works closely with the steering committee and is the public face of the foundation. The foundation president has ex officio membership in the Swiss Academies of Arts and Sciences. The foundation board is composed of individuals from the political and academic spheres. The composition of the board is defined in the statutes; the names of the foundation board members are listed on the TA-SWISS website.

### Steering Committee

The TA-SWISS steering committee selects projects, commissions the corresponding studies, monitors the quality of the studies and authorises publication. Its responsibilities include:

- Positioning of the content of TA-SWISS activities
- Decisions on thematic focus
- Selection of project groups and members of supervisory groups

- Choice of methods
- Authorisation to publish reports
- Establishment of communication channels between policymakers and relevant organisations

The steering committee is composed of individuals from academia, society, economy and politics; the members are chosen by the foundation board. Selected representatives from government and other institutions may be delegated ex officio and individually appointed by the foundation board to serve in the steering committee as active guests without voting rights. The list of current members of the steering committee is available on the website of TA-SWISS.

## **Head Office**

The TA-SWISS head office includes the managing director, several research associates and project leaders, the communications officer and the administrative staff. The head office may employ interns.

### **The managing director**

The managing director is responsible for leading the head office and the various activities of TA-SWISS, and is the public face of TA-SWISS.

### **Administrative staff**

The administrative staff are responsible for all administrative tasks of the head office and help organise events.

### **Project leaders (research associates)**

Project leaders are responsible for managing the projects of TA-SWISS. In particular, they plan, conduct, organise and support TA projects. Moreover, they draw up recommendations for new topics and submit reports to the steering committee. They stay up to date on current technological developments and support communicating the project findings and are active in maintaining TA networks.

### **Communications officer**

The communications officer is the link between TA-SWISS projects, the media and the general public. The communications officer announces project findings and supervises, edits and produces TA-SWISS publications (in particular, summaries); the communications officer is in general responsible for media relations and organises events with various target groups.

### **Supervisory groups**

As a rule, project-specific supervisory groups are recruited to ensure quality of the TA-SWISS studies. The supervisory groups ascertain that studies are scientifically correct as well as independent and unbiased in both perspective and form; moreover, they ensure that a comprehensive and interdisciplinary approach has been taken, and that evidence is described in a coherent and unambiguous fashion. On the basis of ongoing findings, the supervisory groups recommend modifications to the study, if necessary. In addition, the supervisory groups issue recommendations and make proposals to the steering committee, in particular suggestions on pursuing a topic and recommendations on publishing the report. Lastly, the supervisory groups prepare recommendations on communicating the findings (outreach).

The TA-SWISS steering committee decides which persons will be invited to be members in supervisory groups. As a rule, supervisory groups are composed of:

- At least one member of the steering committee
- Several experts with experience in the scientific and social sectors of the topic at hand
- The project leader and the managing director of TA-SWISS

All members of the steering committee may elect to attend meetings of the supervisory groups.

## **Project groups**

Project groups are the contracting partners of the head office and responsible for the operative management of TA-SWISS projects. They have the following responsibilities:

- Correct management and completion of the project in terms of content, methods and time frame
- Assurance that processes and findings correspond to TA-SWISS quality criteria
- Regular reporting to the supervisory group and the project leader from the head office
- Observance of guidelines issued by the head office, supervisory groups and, if applicable, the steering committee
- Responsibility for the budget as defined in the contractual agreement
- Submission of a final report with recommendations

As a rule, project groups are teams composed of a project leader and several staff members or experts from various scholarly disciplines. Members may also include individuals from higher education institutions, semi-governmental agencies or private consulting firms.

## TA network

TA-SWISS maintains a network with a range of institutions that deal with the impacts of emerging technologies. In addition, TA-SWISS is a member of various international TA associations, in particular:

- European Parliamentary Technology Assessment Network (EPTA Netzwerk)  
<https://eptanetwork.org>
- NTA, Netzwerk TA  
[www.openta.net/netzwerk-ta](http://www.openta.net/netzwerk-ta)
- globalTA, Global Technology Assessment  
<https://globalta.technology-assessment.info>

TA-SWISS also collaborates with individual TA institutions of other countries, in particular: the Office of Technology Assessment at the German Bundestag (TAB); the Rathenau Instituut in The Hague; the Institute of Technology Assessment ITA in Vienna; the French National Assembly Technology Assessment Office (OPECST) in Paris; the Parliamentary Office of Science and Technology (POST) in London; and the EU Science and Technology Options Assessment (STOA) in Brussels.

## Co-funding institutions

In some cases, TA-SWISS projects may be partly financed by other institutions (e.g. academies, public authorities), which then also share responsibility for the project. They participate in planning, funding and supporting TA-SWISS projects.

Only institutions having no commercial interest in the technology in question may be co-sponsors; co-sponsors may also not have associations or political alliances that would impinge on the independence of TA-SWISS.

# 4

## Communication and outreach

A major aspect of TA-SWISS's work is promoting dialogue between the public, academic and political spheres. Consequently, communication and outreach play a key role in disseminating the findings of TA-SWISS studies. Project groups, members of the supervisory groups as well as attendees in participatory projects are required to be active, within their means, in outreach and communication. The overall responsibility for communication and outreach rest with the head office.

### Objectives

- Informing a broad audience (political sphere, general public, academia) about activities carried out by TA-SWISS
- Ensuring accessibility to studies funded by TA-SWISS, in particular creating networks with journalists and policy makers
- Contributions to the public debate on topics related to technology assessment
- Preparation and publication of objective, trustworthy, independent, predictive and scientifically sound information and bases for decision-making

## Approach

- As a provider of information, the TA-SWISS Foundation for Technology Assessment is active in approaching editorial offices and media professionals
- Communication channels primarily directed to exchanging information and viewpoints is offered and further developed to defined dialogue groups
- Outreach is an integral part of all TA-SWISS projects
- Project groups, supervisory groups and the head office carry out appropriate outreach work during all project stages
- Information for the general public is made available on the website

As a rule, the public is informed via an appropriate media channel (e.g. news release, newsletter) several times over the duration of a TA-SWISS project.

Information campaigns generally begin at the outset of a project. The final results are communicated after project conclusion; this occurs upon authorisation of the steering committee and as soon as printed matter on the project are available (book and summary for studies, and reports for participatory processes). A media conference and/or a large conference is/are organised to announce the results.

The head office endeavours to make the findings available at symposia to selected, particularly interested individuals. Media relations also includes relevant news releases, articles and references in in-house communication channels (newsletter, website). In addition, it seeks contact with parliamentary commissions.

## TA-SWISS products

### **TA studies**

The project groups commissioned by TA-SWISS prepare expert studies, which may also draw conclusions and make recommendations on required actions with respect to the topic at hand. The studies are printed in book form and published as an e-book that is available free of charge on the TA-SWISS website.

### **Summaries of TA studies**

A summary in four languages (German, French, Italian and English) is made for each study; the summaries are addressed to a broad audience and present the key findings and conclusions of the study in a compact, reader-friendly format. The summaries structure the findings and may also present the discussions that took place within the TA-SWISS steering committee. They may also contain recommendations by the steering committee and thus demonstrate how the committee weighs the findings, where there is consensus or disagreement, and where the steering committee believes certain aspects or dialogue should be further pursued. The production and translation of the summaries is managed by the TA-SWISS head office; the summaries are printed as brochures and uploaded as PDFs on the TA-SWISS website.

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## **Reports on participatory events**

The participatory events are documented in a report that summarises all thoughts and considerations discussed and debated during an event. The interviews with experts, the transcription of round-table discussions and the final panel discussions are included in the same document, which is sent to members of parliament and interested institutions.

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## **Newsletter**

The TA-SWISS newsletter is circulated several times a year; it communicates the latest findings and provides information on the ongoing activities of TA-SWISS. The newsletter is printed and published online.

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## **E-News and Social Media**

Calls for project proposals, information on participatory events and short-notice information are sent via e-news, as necessary. In addition, TA-SWISS uses Twitter and other modern social media channels to communicate news and enter into dialogue with interested parties.

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## **Annual report**

The annual report provides information on all activities of the year under review, including financial resources and human resources. The report is printed and also uploaded as a PDF on the TA-SWISS website.

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## **Media echo and statistics to monitor success**

The head office endeavours to monitor and document the media echo generated by the various activities of TA-SWISS. This includes compiling published press articles as well as recording the number of orders made for TA-SWISS studies, the number of attendees at TA-SWISS events, the number of visitors to the TA-SWISS website and the circulation numbers of reports and periodicals.

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## **TA-SWISS**

Foundation for Technology Assessment

Brunngasse 36

3011 Bern

[info@ta-swiss.ch](mailto:info@ta-swiss.ch)

[www.ta-swiss.ch](http://www.ta-swiss.ch)

