

Electronic voting in Switzerland

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What is e-voting?

e-voting is short for 'electronic voting' and refers to the option of using electronic means (i.e. the Internet, e-mail) to vote in referendums and elections, give signatures for initiatives and referendums and acquire information on elections and referendums from the authorities. In Switzerland, it is planned to use e-voting to complement conventional procedures (voting in person by ballot and postal voting), but not to replace them.

The starting point

A number of proposals were directed by parliament to the government, asking it to look into whether and how direct democracy in Switzerland could be reinforced by the new information and communication technologies. As a result, the government commissioned the Federal Chancellery in August 2000 with the task of examining the feasibility of e-voting. To this end, the Chancellery set up a working party composed of federal and cantonal representatives and known as the "Preliminary Project on e-voting", which has delivered a first report on the options, risks and feasibility of e-voting to the government¹. The report was approved by the government in January 2002 and noted in subsequent sessions of parliament. The working party continues to monitor the pilot projects supported by the Chancellery in the cantons of Geneva, Neuchâtel and Zurich, which are designed to clarify the main considerations which would arise if e-voting were to be introduced in Switzerland.

Pros and cons of e-voting

Both supporters and opponents of e-voting list a series of weighty arguments. On the one hand there are the opportunities which the electronic exercise of political rights might bring. E-voting can make voting in elections and referendums easier for many people. The considerable mobility of the Swiss population, the change in communication habits and the daily information overload could further reduce participation in political decision-making. But one might also think of those who are blind or visually impaired, who at present have only limited opportunities of exercising their right to vote in secrecy; or of the Swiss who live abroad, who are often excluded from voting by distance and slow postal services. There is disagreement among experts as to whether e-voting would actually encourage more people to vote or not. On the other hand, there are potential risks in e-voting, primarily in terms of the possible abuse of the system. Critics fear the unauthorised intervention of third parties in the voting process. There is no guarantee, given the current state of information technology, that a programme could not be manipulated to allow someone to store and print out a different form or document from the one appearing on the screen. With electronic voting it is more difficult to detect and find the source of errors, technical breakdowns etc. than with conventional procedures, and public checking of recounts is less easy. If public doubts about the reliability of electronic forms of voting cannot be removed, the whole functioning of the democratic system may be brought into question.

¹ Report on e-voting: options, risks and feasibility of the electronic exercise of political rights, BBI 2002 645. The report, together with addenda and submissions from experts, is available at: <http://www.admin.ch/e-gov> (in German, French and Italian).

The pilot projects in Geneva, Neuchâtel and Zurich

A consultation exercise carried out in all the cantons showed that many cantons would like to be involved in the pilot projects which are being partly financed by the Federation². To date, agreements have been reached with Geneva, Neuchâtel and Zurich.

One particular criterion was decisive in the selection of the pilot projects. The three pilot cantons form a set which covers those factors relative to the requirements for e-voting which are of central importance for all the cantons. The canton of Geneva, for example, already has a centralised administrative structure and a central register of voters. This has still to be created in the canton of Zurich³. The canton of Neuchâtel is examining the implementation of e-voting as an integral part of its 'Guichet sécurisé unique' ('special secure counter'), an electronic public office for all cantonal authority matters⁴. The differing requirements and goals, as well as the staggering of the three pilot projects over time will allow the gradual build-up of the know-how necessary for a nationwide solution.

A variety of tests has been carried out in the canton of Geneva. Voters in the community of Anières were the first in Switzerland to be able to vote electronically in the communal voting which took place on 19th January 2003. A second legally valid electronic vote took place in the community of Cologny on 30th November 2003. Those responsible for the project in Geneva have developed a procedure for identifying the individual voter, preserving the secrecy of voting and making e-voting safe. The procedure sticks as closely as possible to the experience gained from postal voting, so that e-voting will appear to voters as merely an extension of the familiar postal vote. The card which entitles a person to vote includes a scratchcard strip concealing a password specific to the person. If a person wishes to vote electronically, they must scratch the card to reveal the password. Using the password and additional personal information, they will then be able to access the e-voting system⁵.

Legal basis

Federal law on political rights⁶ and the related, similarly-worded decree⁷ had to be supplemented in order to give the government the legal means to permit legally binding studies at the federal level. The legal basis and the practical regulations came into force on 1st January 2003. From then on it was possible for the government to permit a canton, if it so requested, to carry out e-voting pilot studies limited as to time, place and subject matter.

The federal constitution inscribes the right to free decision-making and secure voting free from counterfeiting. From this result a series of requirements for e-voting which are set out in Articles 27a-27q of the regulations. Voters must be informed about the organisation, the technology used and the temporal sequence of the process of electronic voting. It must be possible to change one's mind and/or to cancel one's vote before it is finally sent off; there must be no on-screen advertising which could influence voters in any way; and there must be a perfectly clear visual indication on

² The survey is available (in German, French and Italian) at: <http://www.admin.ch/e-gov>

³ Further information on the Zurich pilot project is available at: <http://www.statistik.zh.ch/projekte/evoting/evoting.htm>.

⁴ Further information on the Neuchâtel pilot project is available at: <http://www.ne.ch/gvu/>.

⁵ Further information on the Geneva pilot project is available at: <http://www.geneve.ch/chancellerie/e-government/e-voting.html>.

⁶ At: http://www.bk.admin.ch/ch/d/sr/c161_1.html.

⁷ At: http://www.bk.admin.ch/ch/d/sr/c161_11.html.

the computer or machine being used to register the vote that the vote has been transmitted.

In order to maintain voting secrecy, the electronic vote has to be encoded from the moment of sending until the moment of arrival; it must remain fully anonymous and must not be traceable to the voter. The possibility of a vote getting lost must be technically ruled out, even in the case of a fault or failure in the system. It must be possible to reconstruct every individual use of the system and every vote given even if there is a system crash.

Future prospects

The pilot projects in Geneva, Neuchâtel and Zurich are due to be completed and evaluated in 2005. The government and parliament will then decide whether and how electronic voting should be made available in Switzerland as a supplementary form of voting.

Further information on e-voting at: <http://www.admin.ch/e-gov>