10. “E-voting” and external voting

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1. Introduction

Electronic voting—‘e-voting’—is the option of using electronic means to vote in referendums and elections. Different systems exist, such as direct recording electronic (DRE) voting machines that record the vote directly without that vote being transmitted over the Internet or another network: for example, the interface of a DRE machine can be a touch screen, or the voter can fill out the ballot paper and then scan it into the system. Most commonly, e-voting refers to voting over the Internet using a personal computer (PC) with an Internet connection. There are also other means, such as personal digital assistants (PDAs), telephones or mobile phones, that could be used to cast a vote electronically.

It is useful to distinguish between two concepts of e-voting: ‘polling place e-voting’, and ‘remote e-voting’. ‘Polling place e-voting’ refers to systems where a voter casts his or her vote inside a polling station or similar premises controlled by electoral staff; ‘remote e-voting’ is used to describe those systems where a voter casts his or her vote at any place outside the polling station. Both could be relevant for the purposes of this Handbook.

There are different ways in which electronic means can be used to facilitate external voting. The most challenging would be to allow voters who are abroad to transmit a vote using electronic means, for example, casting a vote at a PC and transmitting it to the electronic ballot box over the Internet. E-voting could also be carried out in the supervised environment of a diplomatic or consular mission. However, in the course of the research for this paper, no instances of the latter solution being considered were found. Only remote e-voting seems to be an option for external voting.

*The views expressed in this chapter are those of the author and do not necessarily reflect those of the Swiss Federal Chancellery.
Section 2 of this chapter looks into examples where the use of remote e-voting is being considered as a channel for external voting. Section 3 analyses the arguments in favour and against remote e-voting for external voters, and section 4 gives an overview of the most important security challenges and possible approaches to solutions. Apart from the use of electronic means to vote in referendums and elections, electronic means can also be used to support single steps of the external voting process. Section 5 provides some examples of how new information and communications technologies, especially the Internet, can assist an elector abroad. Finally, section 6 draws conclusions from the research.

This survey is based on some examples of what is being done in the field of e-voting and external voting, collected by the Swiss Federal Chancellery. The research is by no means comprehensive and does not take into account each and every country that is practising e-voting or thinking of introducing it. Nor does the chapter look into the discussion about pros and cons of e-voting in general. The list of references and further reading in annex C gives some indications as to where further information about e-voting in general and the discussion about pros and cons can be obtained.

There are very few overviews of e-voting projects worldwide. An overview dating from the summer of 2004 is available on the website of the ACE project at <http://aceproject.org/ace-en/focus/e-voting/>; see also Buchsbaum 2005.

2. Remote e-voting and external voting

Some countries are testing and considering the introduction of remote e-voting especially, and sometimes even exclusively, for their citizens who are living or staying abroad. However, only a few countries allow external voters to cast their votes electronically. Furthermore, there are a few experiments with remote e-voting for external electors, and sometimes expressions of political intentions to consider the question of remote e-voting for external electors. This section highlights some examples of countries that are considering remote e-voting for their citizens abroad.

Austria

In Austria, e-voting is not a top priority for the government. Nevertheless, the Austrian Federal Council of Ministers approved an e-government strategy in May 2003, in which e-voting is listed as a project in the annex, and in the spring of 2004 the Federal Ministry of Interior established a working group on e-voting in order to study and report on various aspects of e-voting (Federal Chancellery 2003; and <http://www.bmaa.gv.at/view.php3?f_id=6016&LNG=de&version>). The working group was not dealing with the question of e-voting for external electors. However, the explanatory memorandum to the Austrian Federal Act on Provisions Facilitating Electronic Communication with Public Bodies (the e-Government Act, available in English at <http://www.ris.bka.gv.at/erv/erv_2004_1_10.pdf>), which came into force on 1 March 2004, explains the provision for setting up a supplementary electronic register as ‘a first step towards
enabling Austrian expatriates in future for example to be given the possibility of casting votes at Austrian elections in electronic form’ (Explanatory memorandum to the act, in German). In early 2007, the Federal Council of Ministers affirmed its willingness to look into remote e-voting as an additional means of voting as part of a bigger reform of democracy (see <http://www.wienerzeitung.at/DesktopDefault.aspx?TabID=3858&Alias=wzo&cob=274850>).

Estonia

Discussions on remote e-voting started in Estonia in 2001 and one year later, the legal provisions for it were put in place. During summer 2003 the National Electoral Committee started the e-voting project. The system includes the use of smart cards and electronic signatures (see National Election Committee 2005). The first tests of the remote e-voting system were held in late 2004 and 2005 during local referendums and elections. In March 2007 Estonia held the world’s first national Internet election. A total of 30,275 citizens (3.4 per cent) used remote e-voting which was available to Estonian voters in Estonia as well as abroad (see National Election Committee, ‘E-voting Project’).

France

On 1 June 2003, French citizens residing in the USA were given the possibility of electing their representatives to the Council of French Citizens Abroad (Conseil supérieur des Français de l’étranger, CSFE; since 2004 the Assemblée des Français de l’étranger, AFE) by remote e-voting. The AFE is a public law body that is allowed to elect 12 members of the upper house of the French Parliament, the Senate. In 2003, the Forum des droits sur l’internet (Internet Rights Forum), a private body supported by the French Government, published recommendations on the future of e-voting in France. It recommended that remote e-voting should not be introduced, except for French citizens abroad who should be able to elect the CSFE by voting over the Internet (see Internet Rights Forum 2003). For the elections of 18 June 2006 all French citizens abroad were able to choose between three voting channels—personal voting, postal voting or electronic voting (Ministry of Foreign Affairs March 2006).

The Netherlands

In most districts in the Netherlands, voting is done electronically at polling stations. The Dutch Government is also considering and testing remote e-voting (<http://www.minbzk.nl/uk/different_government/remote_e-voting_in>; and Caarls 2004). Dutch nationals resident abroad are entitled to vote in elections to the House of Representatives and the European Parliament (Hupkes 2005). They have to register with the municipality of The Hague for each individual legislative or European election. Dutch electors resident abroad are considered to be an ideal test group for an experiment with e-voting and telephone voting because they are already permitted to vote by post. The purpose of the e-voting project was to ease access for electors abroad and to encourage their participation in elections. The evaluation of the use of e-voting during the elections to the European Parliament in June 2004 showed that e-voting had an added value and made voting
more accessible. Subsequently, in the legislative elections in November 2006, Internet voting was made available again as an experiment and an alternative to postal voting for Dutch voters abroad. A total of 19,815 valid ballots were cast in this way (see <http://www.minbzk.nl/bzk2006uk/subjects/constitution_and/internet_elections>.

**Spain**

Since 1995, the Generalitat de Catalunya, the government of the autonomous region of Catalonia in north-eastern Spain, has run several pilot projects in parallel with public elections using electronic voting machines inside polling stations. In November 2003, a non-binding remote e-voting pilot was held in parallel with elections to the Catalan Parliament. Over 23,000 Catalans resident in Argentina, Belgium, the United States, Mexico and Chile were invited to participate using any computer connected to the Internet. The Generalitat de Catalunya sponsored this pilot to examine the use of secure electronic voting in the future (see <http://www.gencat.net/governacio-ap/eleccions/e-votacio.htm>.

**Switzerland**

In August 2000 the Swiss Government gave the Federal Chancellery the task of examining the feasibility of remote e-voting. An interim report of the Swiss Federal Chancellery on remote e-voting called Swiss living or staying abroad 'the most suitable target group' because remote e-voting could save them time, increase effectiveness and save costs (Federal Chancellery August 2004). Since 2002, a variety of legally binding tests of remote e-voting have been carried out in the cantons of Geneva (see <http://www.ge.ch/evoting>), Neuchâtel (see <http://www.guichetunique.ch>) and Zurich (see <http://www.statistik.zh.ch/produkte/evoting/index.php?p=5>), including between 2004 and 2006 seven remote e-voting trials on the occasion of national referendums. The pilot projects were evaluated in 2005 for a number of different aspects, including the potential of remote e-voting to increase voter turnout, the security risks and its cost-effectiveness. The evaluation has shown that remote e-voting is feasible in Switzerland (see Federal Chancellery, <http://www.bk.admin.ch/themen/pore/evoting/00776>). In March 2007 the Swiss Parliament adopted the legal basis for harmonizing the voter registers for Swiss voters abroad. This is the first step towards the offering the Swiss abroad the possibility of remote e-voting, for which there is a strong demand (see <http://www.aso.ch>.

**The USA**

The USA built an Internet-based electronic voting system for the US Department of Defense's Federal Voting Assistance Program (FVAP). The SERVE voting system, as it was called (Secure Electronic Registration and Voting Experiment), was planned for deployment in the 2004 primary and general elections, and would have allowed the electors overseas and military personnel to vote entirely electronically via the Internet from anywhere in the world. It was expected that up to 100,000 votes would be cast electronically. However, SERVE was stopped in the spring of 2004 following a report by four members of a review group financed by the Department of Defense. They recommended that the development of SERVE be shut down immediately because they considered the Internet and the PC not to be sufficiently secure (Jefferson et al. 2004).
3. Arguments in favour of and against remote e-voting for external electors

3.1. In favour

The common denominator in the seven countries mentioned above is the fact that they wish to make it easier for their citizens abroad to participate in national elections and referendums. In that respect, external electors are considered to be one of the most suitable target groups for remote e-voting, since there is no comparable voting channel fully available for them that would be as comfortable and as accessible. Postal voting—the channel that is probably most comparable to remote e-voting—does not offer the same benefits, since postal services are sometimes too slow for delivering the ballot paper before voting day and thus some external electors are prevented from voting. Other voting channels, such as voting at an embassy or diplomatic mission, are not as convenient for the voter, since he or she needs to go to a certain place during certain hours. The overall thought behind making it easier for external electors to vote in elections and referendums is, of course, to increase voter participation and thus strengthen democratic legitimacy.

Apart from convenience to external electors, there are other reasons in favour of remote e-voting.

1. In some cases, citizens living or staying abroad are considered to be an ideal test group for remote e-voting, while the real intention is to introduce this new method for electors inside the country as well.

2. In some cases, citizens abroad are well organized—even better organized than interest groups inside a country—and capable of formulating their needs and putting them onto the agenda.

3. Depending on the circumstances and the other voting channels available for external electors, remote e-voting might save costs.

3.2. Against

Because by and large only those countries that are considering the introduction of remote e-voting provide information on the subject, there are only a few arguments to be found against the introduction of remote e-voting for external electors. These reasons include:

1. Security concerns. However, there are no special security concerns with specific regard to remote e-voting for external electors. Rather, it is remote e-voting as such that is considered to be not secure. The security concerns include doubts about the Internet as a means of transmission of confidential information, fear of hacker attacks—both by insiders (e.g. software programmers) and by outsiders (e.g. political parties, terrorists or other states)—and anxiety about the possibility of undue influence being exerted on the voter during the voting process (e.g. ‘family voting’).
2. Financial aspects. It may be costly to build the infrastructure for providing remote e-voting only to a limited number of electors. The expensive items can be the building of a digitized, harmonized register of external electors or the maintenance of security of the system.

3. Equal treatment of all electors (external and internal). In Switzerland for instance, the government says that if remote e-voting is introduced it has to be done on a step-by-step basis. It should be introduced for ‘internal’ electors first and only after that for external electors. The reason behind this is that there is no centralized electoral register for external electors (see the case study). External electors from one canton should not be able to vote electronically while those from another canton do not have this opportunity.

The Australian Electoral Commission (AEC) answers the question ‘Can I vote via the Internet?’ on its website (<http://www.aec.gov.au/_content/What/enrolment/faq_os.htm>) as follows:

The introduction of internet or computerised voting is not a feasible proposition at this time, as a number of security, technical, financial, access and equity issues have to be solved before it could become a fact of electoral life.

• There is no appropriate software technology for use in full preferential voting system.
• Many voters, especially the elderly and those with poor literacy and numeracy skills may have difficulty with using the internet.
• There is a risk of fraud and errors occurring in software without the safeguard of paper ballots to recount.
• Start up costs would be significant.
• The AEC would need to continue to provide traditional voting facilities for those with no internet access.

However, Australian electors in Australia have been able to use polling place e-voting for elections to the Australian Capital Territory Legislative Assembly. In 2001 and 2004, e-voting was available at four pre-polling voting centres over a two- to three-week period and at eight polling places on polling day itself (see <http://www.elections.act.gov.au/Elecvote.html>).

4. Some security challenges for remote e-voting and possible solutions

Before remote e-voting is introduced, several security challenges have to be faced. Table 10.1 gives a first idea of the most important of them. However, each country has different legal conditions and different technical infrastructure available. These should be taken into account as well.
Table 10.1: Security challenges for remote voting and possible solutions

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Possible solutions</th>
</tr>
</thead>
</table>
| Unambiguous identification                     | • Individual code in order to gain access to the system  
• Indication of date of birth and the place of origin for the purpose of identity validation and prevention of systematic fraud  
• Use of a digital signature  
• Further personal data could be required. |
| Authenticity of the e-voting servers            | • The server certificate should be reviewable by the citizens (fingerprint control).  
• Authenticity could also be demonstrated by an answer code or symbol (image) which can be verified, e.g. on a polling card sent to the elector by post. |
| Unique and universal voting                     | • As soon as an advance vote (postal or electronic) is cast, the voter could be marked in the electronic electoral register.  
• Unambiguous features on the polling card (e.g. any tampering with the metallic field or seal covering individual ID codes) could indicate that a citizen has probably already cast a vote. |
| Protection of voting secrecy/privacy protection | • Separate and divided storing of personal data and vote.  
• Random mixing of votes in the electronic ballot box so that it is impossible to gather knowledge of how someone has voted by comparing the sequence of casting votes and time flags in the electronic electoral register |
| Hacker attacks to:                              | • Firewall protection  
• Code voting  
• Virus scans  
• Vote encryption  
• Verification by the voter: vote is transmitted as an image, not as text information  
• In the transaction dialogue all packages should be check-sum tested (hash code) to prove their integrity  
• Several redundant servers  
• Collaboration with major providers |
<p>| (a) voting devices (private computers, etc.):    |                                                                                                                                                                                                                      |
| possible interception and modification of votes, |                                                                                                                                                                                                                      |
| e.g. by Trojan horses (the weakest point of any e-voting system) |                                                                                                                                                                                                                      |
| (b) vote transaction from client to server:      |                                                                                                                                                                                                                      |
| possible interception and modification of votes, |                                                                                                                                                                                                                      |
| e.g. man-in-the-middle attack, domain name server (DNS)-hacking) |                                                                                                                                                                                                                      |
| (c) central server platform (heart of the e-voting system), e.g. denial-of-service attack.       |                                                                                                                                                                                                                      |</p>
<table>
<thead>
<tr>
<th>Challenges</th>
<th>Possible solutions</th>
</tr>
</thead>
</table>
| **Force majeure**                | • Several servers at different locations  
• Housed in highly secure rooms (access control, fire protection, emergency power supply) |
| **Traceability, recounting**     | • Voter gets a receipt when his or her vote has been cast  
• Audit trail journal of the counting of conventional and electronic votes signed by the public servants and controllers in charge  
• Separate storage (CD-ROM) of electronic votes and log files (encrypted) |
| **Confidence**                   | • Training of controllers  
• Use of open-source software (operating system)  
• Disclosure of proprietary applications |

## 5. Other support through new information and communication technologies

There are also other, less far-reaching ways in which electronic means—among them the Internet—can be used to facilitate voting from abroad. The range goes from providing information to facilitating different steps of the voting process without going so far as to allow voters to cast their ballot electronically. This section highlights some examples.

### Australia

Electors abroad can do different things by fax: enrol to vote; apply to become an ‘eligible overseas elector’; enrol as spouse or child of an eligible overseas elector; enrol as an ‘itinerant elector’; or apply for a postal vote.

### New Zealand

Overseas electors can download their ballot paper, declaration and supporting documentation from the Internet starting three weeks before election day. However, they cannot return the ballot papers electronically or vote by email, as the website of Elections New Zealand (<http://www.elections.org.nz/voting/how_vote_overseas.html>) emphasizes. Only overseas electors are allowed to download the ballot paper. Completed ballot papers can be returned by fax or ordinary post. Only voters abroad are allowed to fax their ballot papers; if a ballot paper is faxed from within New Zealand, the vote will not be counted.
Singapore

Singapore offers overseas electors the possibility of filling out a registration form online. However, the form cannot be transmitted over the Internet, but has to be printed out, signed and sent to the Elections Department or any overseas registration centre by registered post. Registered overseas electors are assigned to vote at one of the overseas polling stations (located within Singapore’s high commissions, embassies or consulates). If the elector does not remember which his polling station is, he can find out online (<http://www.elections.gov.sg/overseasvoting.htm>).

6. Conclusion

Electors abroad are clearly a focus group that is of particular interest for those countries that are considering the introduction of e-voting in a general manner. At the same time, they are a target group that can be difficult to include in e-voting for practical reasons. Other countries see a need to introduce e-voting for their external electors but do not see the same urgency for introducing e-voting for the internal electors. However, there is no definite trend towards the introduction of remote e-voting, not even in the countries where the first steps towards it have been taken.
The Republic of Estonia re-established its independence on 20 August 1991 on the basis of legal continuity of statehood. The legislative body in which the supreme power of the state is vested is the parliament, which is elected by proportional representation (PR). The first fully free and democratic national legislative and presidential elections were held on 20 September 1992.

According to the constitution, a citizen who has attained 18 years of age has the right to vote. Participation in voting may be restricted for citizens who have been legally incapacitated or have been convicted by a court and are serving sentences in penal institutions. In legislative elections, every Estonian citizen with the right to vote who has attained 21 years of age has the right to stand for election (paragraphs 56–58 and 60 of the constitution).

The parliament is elected in free, general, uniform and direct elections on the principle of proportionality.

**Entitlement of external electors**

Since independence was regained, Estonian citizens with foreign residency have been granted the right to vote in legislative elections and referendums. However, external voting is not possible in elections to local government councils. External voting was practised for the first time during the constitutional referendum in June 1992.

In legislative elections, voters who are *permanently* resident abroad vote in the electoral district in Estonia where they or their parents, or grandparents, were last permanently resident. Citizens who are staying abroad temporarily vote in the electoral district in which they are entered on the electoral register, according to their residence (paragraphs 50 and 54 of the Riigikogu Election Act 2002). External electors, both temporarily and permanently resident abroad, may choose whether to vote at a foreign mission in person or by post.
The organization of the external vote

Estonia’s foreign diplomatic missions organize external voting. The leader of each mission must appoint one of the officials working there to organize the voting. Their work is coordinated by the Ministry of Foreign Affairs, which is also responsible for training and for delivering voting materials such as the electoral registers, ballot papers and envelopes.

Since the late 1990s, with increased volumes of travel and migration, external voting has become more significant. There were major changes in the electoral law concerning external voting in 1998. Estonia is a small country and does not have many diplomatic missions (there were 35 at the time of the 2004 elections). In earlier elections many Estonians were not able to vote because they were living a long distance away from the diplomatic mission. To overcome this problem, in 1999 a procedure for advance postal voting was introduced. The option of personal voting at diplomatic missions still remains.

Since 1999 citizens who are staying abroad temporarily have also been able to vote externally, either at Estonian diplomatic missions or by post. Additionally, according to the amended election laws, electors who are permanently resident abroad and who have not voted in the country of residence have the option of casting their vote in Estonia.

To ensure the principle of one person, one vote, external voting takes place in advance. At the diplomatic missions, voting is organized on at least two days in the period between 15 days and ten days before election day. All external voters’ ballot papers should be received by the National Election Committee not later than the fourth day before election day. The National Election Committee then sorts them and delivers them to the appropriate electoral district. The right to vote is checked again in the voter’s electoral district to ensure that no one has voted more than once. The votes are counted on election day itself.

To improve the checking of their eligibility, all electors, including those living permanently abroad, are registered in a central population register. Before the start of the external voting period, the lists of electors are sent to the diplomatic missions. In certain cases these may be amended by the diplomatic missions.

To ensure the secrecy of the vote, ballot papers are sent in two envelopes. The inner envelope is anonymous, and the outer envelope shows the voter’s name and the number of the electoral district. Once the voter’s eligibility has been checked against the electoral registers, the outer envelope is removed and the ballot paper in the anonymous inner envelope is put in the ballot box.

For postal voting the voter submits a request to the diplomatic mission of his or her country of residence. If there is no mission in that country the voter addresses the request to the nearest mission. This must be done not later than 45 days before election day. Not later than 35 days before election day, the diplomatic mission sends the voter a ballot paper, the list of candidates and two envelopes. The voter completes the ballot paper and places it in the two envelopes. On the outer envelope he or she writes his or her name and the number of the electoral district. The voter who is staying abroad temporarily also indicates his or her address in Estonia. He or she then sends the envelope back to the diplomatic mission, which collects all the ballot papers and forwards them to the National Election Committee (paragraphs 50–52 of the Riigikogu Election Act 2002).
Trends in voting turnout

World War II and related events created the Estonian diaspora, with Estonians scattered all over the world. After independence former Estonian citizens and their descendants living abroad had the right to practically automatic Estonian citizenship, and many people have taken citizenship in this way. These are the majority of the electors living permanently abroad. Currently, some 14 per cent of all Estonians—160,000 persons (Kulu 1997)—live outside the country, but the number of electors is significantly smaller. For the 2004 elections, according to the population register about 15,000 Estonians permanently abroad had the right to vote.

In the first legislative elections, in 1992 and 1995, external voting was greatly valued by Estonian citizens living permanently abroad, perhaps because this was the first time in many years they had had the opportunity to take part in the political life of the newly independent Estonia. However, the number of participating voters living permanently abroad has fallen steadily (although in recent elections the share of permanent external voters among all participating voters has increased). An exception to the general trend was the referendum on joining the European Union, in 2003, when total turnout was relatively high and the turnout of voters living permanently abroad also increased.

In contrast, the turnout of citizens temporarily abroad increased over the period 1999–2003.

Exceptionally, in the 2004 elections to the European Parliament turnout was very low in Estonia, as it was in many other European Union countries.

<table>
<thead>
<tr>
<th>Turnout of Estonia External Voters, 1992–2004</th>
<th>% of external voters among all participating voters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parliament 1992</td>
<td>2.0%</td>
</tr>
<tr>
<td>Parliament 1995</td>
<td>1.2%</td>
</tr>
<tr>
<td>Parliament 1999</td>
<td>0.2%</td>
</tr>
<tr>
<td>Parliament 2003</td>
<td>0.2%</td>
</tr>
<tr>
<td>EU Referendum 2003</td>
<td>0.5%</td>
</tr>
<tr>
<td>European Parliament</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

Source: Estonia National Electoral Committee.
E-voting and external voting

In 2002 the legislative basis for electronic voting was created. The Riigikogu Election Act, the Local Government Council Election Act, the Referendum Act and the European Parliament Election Act all cover e-voting. The main object of e-voting is to give voters an additional option for casting their vote and thereby increase participation. It allows people to vote via the Internet using a digital signature and ‘smart’ ID cards for identification purposes. The first e-voting pilots were conducted in 2004 and 2005 during local referendums and elections, and in March 2007, in the world’s first national Internet election, remote e-voting was available to Estonian voters abroad as well as in Estonia (see National Election Committee, ‘E-voting Project’).

There is still a concern that people who are permanently resident abroad need a new kind of document—the ID card—in order to vote electronically. The ID card is a compulsory domestic identification document, but not many citizens who are resident abroad have applied for it. On the other hand, for voters who are abroad temporarily, voting will become easy even in local elections (in which external voting organized by diplomatic missions is not foreseen).

If e-voting succeeds and people get used to this method of voting, it may affect external voting. Personal voting at diplomatic missions in foreign countries and postal voting are among the most expensive forms of voting. In future, therefore, consideration may be given to replacing some paper-based ballot procedures with electronic ballot papers, in particular in connection with external voting.
Switzerland is well known for its direct democracy and federal structure. All Swiss citizens over the age of 18 except for those who have been incapacitated on grounds of mental illness or mental disability (article 136, §1 of the federal constitution) may take part in elections to the National Council (the main chamber of the federal parliament) both by voting and by standing for election. They may also vote in popular votes (article 136, §2 of the federal constitution). A referendum is compulsory for all amendments to the constitution and for membership of some international organizations (article 140 of the federal constitution). In addition, electors have the right to initiative and referendum, that is, they can request a popular vote by collecting the requisite number of signatures (articles 138, 139 and 141). At present Swiss voters go to the polls on polling weekends. In many places, depending on the local regulations, they can also cast a postal vote, that is, fill out their ballot paper before the polling weekend at any place outside the polling station and send it by ordinary mail. There are no preconditions for postal voting: every voter can choose freely whether to cast a postal vote or to go to the polling station on polling day.

Switzerland is a federal state with 26 cantons and around 3,000 communes. At least four times per year there are popular votes in Switzerland on the national, cantonal and communal level. The four voting weekends and the intense political discussion on the issues that are put to a vote are a particular feature of the Swiss political and electoral tradition.

**Historical background (national level)**

Swiss electors who are resident or staying abroad have been allowed to exercise their political rights since 1977. At first, they were only allowed to cast their vote on Swiss territory: they had to travel back to Switzerland in order to vote. This provision has to be seen in close relation with the practice of the Federal Council (the government) with regard to the politically relevant behaviour of foreigners inside Switzerland. Foreigners were not allowed to vote in their own national elections or referendums while on Swiss territory because of issues surrounding Swiss sovereignty. In the light of this fact,
Switzerland could not expect any other state to allow Swiss citizens abroad to cast a vote on its territory. In fact, Switzerland would not even have asked for this, because, if it had been granted Switzerland would have had to grant the same rights to foreigners in Switzerland. In 1989, however, the Federal Council changed its practice. Since then, foreigners have been allowed to take part in the elections and referendums of their own state on Swiss territory. At the same time, the postal vote for Swiss voters abroad was introduced.

Postal voting can be done from anywhere in the world. There are no restrictions whatsoever, except for slow postal services in some countries.

Voting rights of Swiss citizens resident or staying abroad (national level)

Swiss citizens resident or staying abroad who are eligible to vote are able to take part at the national level in referendums and elections, as well as giving their signatures to initiatives and referendums (article 3, §1 of the Bundesgesetz über die politischen Rechte der Auslandschweizer (BPRAS), the federal law on the political rights of Swiss citizens resident or staying abroad). They have the right not only to vote in elections for the National Council (the ‘active voting’ right) but also to stand for election to the National Council, the Federal Council or the Federal Court. However, they may only take part in elections for the Council of States (the upper chamber of the federal parliament) if the law of the canton to which they are attached provides the right to vote for Swiss citizens resident or staying abroad.

In the Swiss federal system, those citizens who are resident or staying abroad do not constitute a distinct voting area or electoral district; instead they choose one commune as their ‘voting commune’. This could be the commune in which they were born, or one in which they have been previously resident (article 5, §1 of the BPRAS). Eligible expatriates who wish to exercise their political rights must notify the local electoral office of their chosen voting commune where they intend to vote. The notification must be renewed every four years (article 5a of the BPRAS). Eligible Swiss resident or staying abroad can submit their vote either personally at the voting commune in Switzerland (according to the same rules as Swiss voters resident in Switzerland) or by post (article 1 of the BPRAS).

These are the only two options for Swiss voters abroad. There is no provision for voting in diplomatic representations abroad.

Switzerland is currently considering introducing remote e-voting. If it is introduced for Swiss nationals in Switzerland, then the next step would be to make it available to external electors as well. Currently, there are provisions allowing only for the testing of remote e-voting for Swiss voters abroad (article 1 of the BPRAS; see also chapter 10).

Voting rights of Swiss citizens resident or staying abroad (cantonal level)

Because of the federal structure of Switzerland, voting rights at cantonal level may differ from voting rights at the national level. At the national level, Swiss voters may exercise the same political rights as Swiss voters in Switzerland, but the picture is different at the cantonal level. Only 11 cantons out of 26 (as of 1 October 2004 these were Basel-Land,
Bern, Fribourg, Geneva, Graubünden, Jura, Neuchâtel, Schwyz, Solothurn, Ticino and Zurich) allow electors abroad who are registered in the canton to exercise their political rights at cantonal level. However, the number of cantons that allow external voting is growing slowly but steadily. Usually, the reasons behind the introduction of external voting are of a political nature. If a political party thinks that the voters abroad will support its politics, it is in favour of introducing external voting.

Some figures
At the end of 2006 there were some 645,010 Swiss citizens resident abroad, of whom about 494,802 were potentially eligible to vote (i.e. they were 18 or over and were not disqualified by reason of mental illness). At the end of December 2006, around 107,600 persons were entered in the electoral register of a Swiss commune and were therefore eligible to vote. These 107,600 electors represented 2.2 per cent of all eligible Swiss electors (4.9 million as of the end of November 2006).

The costs of external voting
There are no specific data available on the costs of external voting. However, it is possible to make a rough estimate of the additional costs of external voting in comparison to voting in Switzerland. Given that there are some 110,000 external electors, and estimating that about 80 per cent of them live in Europe, the costs can be estimated as follows.

Table 1: The costs of external voting in Switzerland

<table>
<thead>
<tr>
<th>Element of expenditure</th>
<th>Cost per voter (CHF)</th>
<th>No. of voters</th>
<th>Total (CHF)</th>
<th>Total (EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postal charges within Europe (priority mail, 101–250 g)</td>
<td>6.50</td>
<td>88,000</td>
<td>572,000</td>
<td>381,300</td>
</tr>
<tr>
<td>Postal charge outside Europe (priority mail, 101–250 g)</td>
<td>8.80</td>
<td>22,000</td>
<td>193,600</td>
<td>129,000</td>
</tr>
<tr>
<td>Personnel costs (packing and advance sending of material)</td>
<td>2.00</td>
<td></td>
<td>220,000</td>
<td>146,700</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>110,000</strong></td>
<td><strong>985,600</strong></td>
<td><strong>657,000</strong></td>
</tr>
</tbody>
</table>

CHF = Swiss francs. EUR = euro.

The voting behaviour of Swiss citizens resident or staying abroad
A survey carried out in 2003 by the Organisation of the Swiss Abroad (ASO) and swissinfo/Swiss Radio International (see GfS Forschungsinstutit June 2003) revealed that Swiss citizens resident or staying abroad have a very distinctive voting profile, formed far less by their political opinions than by such values as modernity of outlook, cosmopolitanism, openness to change, tolerance towards foreigners and belief in the free market.
Representation of Swiss abroad in the parliament

In the National Council elections of 19 October 2003, the Swiss People’s Party (Schweizerische Volkspartei, SVP) in the canton of Zurich came up with a list of candidates for Swiss external voters (List 21: SVP-Union of Swiss Abroad). To date, no overseas candidate has ever been elected to the federal parliament. One reason for this may lie in the fact that the electoral potential of the Swiss abroad is diffused. Since they do not form their own constituency, their votes are distributed among the 26 cantons. However, the election in the spring of 2004 of the Swiss military attaché in Stockholm, Beat Eberle, to the parliament of the canton of St Gallen demonstrates that it is possible for Swiss citizens resident abroad to be elected.