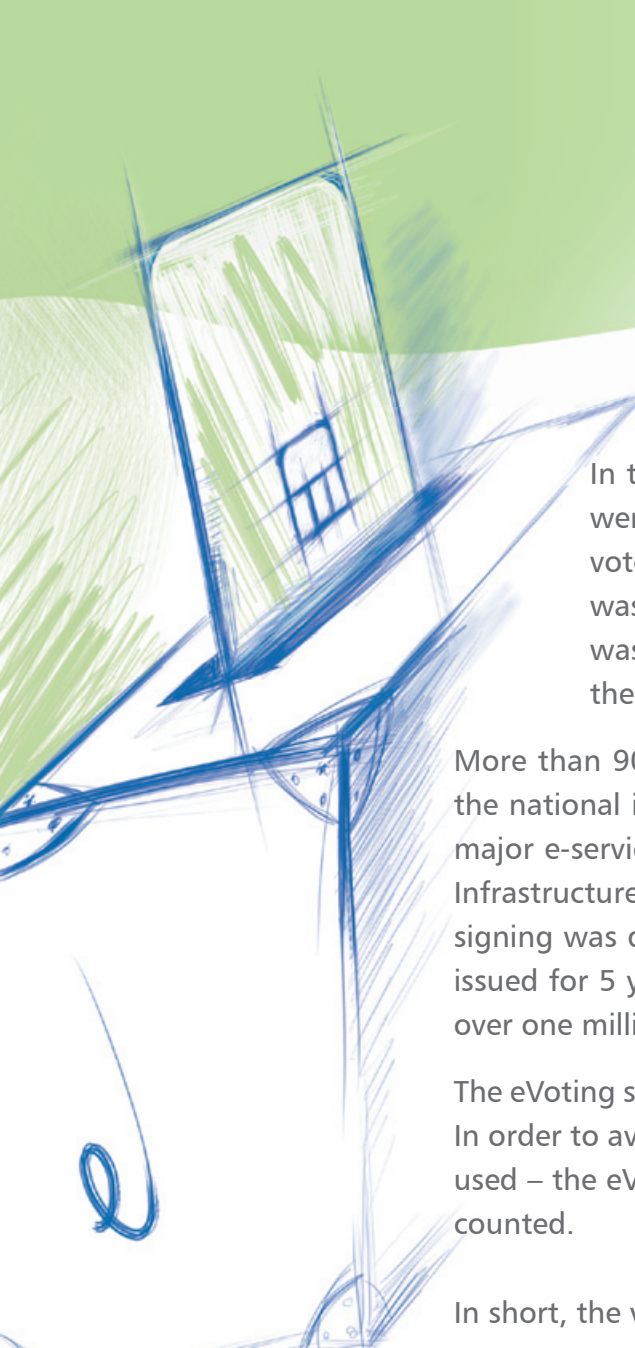


eVoting in Estonia



In the Parliamentary Elections of March 2007, Estonian electors were among the first in the world to have the choice to cast their vote either over the Internet or in a traditional voting booth. This was the second time the new kind of voting with binding results was applied countrywide – eVoting was first used in Estonia in the local government elections of 2005.

More than 90% of all voters had a chance to vote via the Internet using the national identity card. The ID card has an authentication token for all major e-services in Estonia and tools for digital signature. The Public Key Infrastructure (PKI) necessary for secure personal authentication and digital signing was developed in Estonia by the end of 2001. ID cards have been issued for 5 years and by February 2007, the number of card owners was over one million. Thus, most eligible voters already hold the ID card.

The eVoting system follows all principles characteristic of traditional voting. In order to avoid influencing electors, the possibility of electronic re-vote is used – the eVoter can cast his/her vote again with only the last vote being counted.

In short, the voting procedure is the following:

- 1 The voter inserts the ID card into the card reader and opens the website of the National Electoral Committee (<http://www.valimised.ee>).
- 2 The voter authenticates him/herself using the PIN1 of the ID card.
- 3 The server verifies the eligibility of the voter (using the data from the national Population Register).
- 4 The candidate list of the appropriate electoral district is displayed to the voter.
- 5 The voter casts his/her vote, and the system encrypts it.
- 6 The voter confirms his/her choice with digital signature (by entering the PIN2-code of the ID card).
- 7 At vote counting the voter's digital signature is removed. At the final stage, the members of the National Electoral Committee can open the anonymous eVotes and count them only collegially.

The eVoting takes place only on advance polling days (from 6th to 4th day before the Election Day). After that, a list is comprised of electors having voted electronically and sent to polling stations, thus avoiding double voting.

Preparations of the eVoting project were started in 2003 with an objective to provide voters with an additional opportunity. The objective of the project was to raise voting activity and convenience as well as to contribute to the development of democracy through the application of IT solutions. Changing people's attitudes and behavior takes time. Thus, eVoting will probably not replace the traditional method in the near future. In the 2005 elections, 9,317 electors voted electronically and the number of valid eVotes accounted for about 2% of all votes cast. However, the eagerness with which the Estonians apply new IT solutions clearly shows a high level of e-readiness. This gives reason to believe that after some elections, eVoting will be as natural as the one with paper ballots.