OSCE

Office for Democratic Institutions and Human Rights

SWISS CONFEDERATION

FEDERAL ASSEMBLY ELECTIONS
18 October 2015

OSCE/ODIHR Election Expert Team
Final Report

Warsaw
16 February 2016

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OSCE/ODIHR Election Expert Team Final Report[1]

I.   EXECUTIVE SUMMARY

Following an invitation from the Government of Switzerland and based on the recommendation of a Needs Assessment Mission, the OSCE Office for Democratic Institutions and Human Rights (OSCE/ODIHR) deployed an Election Expert Team (EET) to assess aspects of the 18 October 2015 Federal Assembly elections related to Internet voting.

These elections marked a step forward in Switzerland's development of Internet voting. As part of a long-term project to develop online voting, some 130,000 eligible voters from four cantons were eligible to participate in Internet voting pilots. This was the second time that Internet voting had been piloted for out-of-country voting in Federal Assembly elections and the first time that some citizens residing in Switzerland could vote via the Internet in federal elections. OSCE/ODIHR EET interlocutors expressed a high level of confidence in the integrity of Internet voting. The pilots were administered professionally and in line with a newly detailed legal framework, although additional measures could be taken to enhance the transparency and accountability of the process.

Following a 2013 federal review of Internet voting, relevant legislation was significantly amended with broad support from stakeholders at the federal and cantonal levels. The revised legal framework reaffirms the intention to gradually implement Internet voting and the importance of a "security first" strategy that sets new requirements, including with regard to security, testing and verifiability. The amendments addressed a large number of previous OSCE/ODIHR recommendations. In general, the legal framework provides a sound basis for the use of Internet voting.

The Federal Council oversees the overall development of Internet voting, supported by an executive board of the Federal Chancellery, with the cantons responsible for administering the operations. Cantons could only participate in the Internet voting pilots if their systems were in compliance with federal legislation and passed new end-to-end testing and peer review procedures. Initially, 14 of the 26 cantons intended to offer Internet voting. While three systems were authorized in 2015, one system was not approved for the federal elections and pilots were ultimately offered in four cantons using two different systems (referred to as "Geneva" and "Neuchâtel"). The pilots were professionally and impartially administered and enjoyed widespread trust; although, further steps could be taken to enhance system testing and security, the transparency of reports and other documentation, and the interoperability among different systems, as well as to further develop voter education.

In line with a prior OSCE/ODIHR recommendation, this was the first opportunity that voters had the possibility to individually verify that their vote had been cast as intended. Despite complex voting options, the usability of both voting systems was assessed positively. New encryption methods were introduced to enhance data security and no attempted attacks on the software were noted by the

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authorities. Despite a previous OSCE/ODIHR recommendation there are no mechanisms to protect against possible voter coercion or group/family voting.

While new certification requirements for Internet voting systems have been included in the law, they were not mandatory or undertaken for these pilots. Neuchâtel and Geneva aim to introduce certification processes for their respective systems, from 2016 onwards. Auditing is also envisaged in the law, and some internal and external audits were conducted on the two systems. The OSCE/ODIHR EET was informed that the audit criteria and findings for the Geneva system are publicly accessible, while auditing documents for the Neuchâtel system are not, contrary to international good practice.

II.   INTRODUCTION AND ACKNOWLEDGEMENTS

Following an invitation from the Government of Switzerland and based on the recommendation of a Needs Assessment Mission (NAM) deployed from 9 to 11 June, the OSCE Office for Democratic Institutions and Human Rights (OSCE/ODIHR) deployed an Election Expert Team (EET) from 8 to 21 October to observe the 18 October 2015 Federal Assembly elections. The OSCE/ODIHR EET consisted of two experts from two OSCE participating States.

The OSCE/ODIHR EET assessed aspects of the elections related to new voting technologies, in particular Internet voting. This report is therefore limited in scope and does not offer an overall assessment of the electoral process. The specific area under review was assessed for its compliance with OSCE commitments and other international obligations and standards for democratic elections, as well as with national legislation. In line with the OSCE/ODIHR's methodology, the OSCE/ODIHR EET did not undertake a comprehensive and systematic observation of election day procedures. This report should be read in conjunction with the 2015 OSCE/ODIHR NAM report, as well as the 2011 OSCE/ODIHR Election Assessment Mission final report, which provide additional details on the electoral process in Switzerland.[2]

The OSCE/ODIHR would like to thank the Federal Department of Foreign Affairs, the Federal Chancellery, the cantonal chancelleries, other federal and cantonal authorities, political parties, civil society and other interlocutors for their co-operation and assistance.

III.   BACKGROUND

Switzerland is a federal state with a parliamentary system of governance. The country's three-tiered political system comprises the federal authorities, 26 cantons, and 2,324 communes. The cantons exercise wide authority and have their own constitutions, laws, parliaments, and courts.

At the federal level, legislative power is exercised by the Federal Assembly, a 246-member bicameral parliament (National Council and Council of States) elected for a four-year term. Most of the 200 members of the National Council are elected under a proportional system using open candidate lists, while the 46 members of the Council of States are largely elected through majoritarian contests.

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[2]   See previous OSCE/ODIHR reports on Switzerland.

Federal Assembly elections are primarily regulated by the Federal Constitution, the Federal Act on Political Rights, and the Federal Decree on Political Rights, as well as complementary legislation at the cantonal level. While federal law provides minimum conditions for the National Council elections, the cantons are responsible for implementing regulations and detailing the necessary instructions. The Council of States elections are under the full competence of the cantons.

The election administration is decentralized and includes the Federal Chancellery, the cantonal chancelleries, and the communes. The Federal Chancellery assumes a co-ordination role for elections and is responsible for the oversight of Internet voting. Electoral practice varies considerably across the cantons, although some steps have been taken to harmonize procedures since the 2011 federal elections. Voters are provided with a variety of methods to cast their vote, including in person, by post, and via the Internet.

Voter registration is passive, with the exception of those residing abroad who are required to register in either their commune of origin or the commune where they last resided. A total of 5,283,556 citizens were eligible to vote in these elections. This includes citizens registered as living abroad: of the 746,885 registered as migrants, 144,691 registered also as voters as of June 2015. All could vote in the National Council elections, but only 12 cantons allow them to vote in the Council of States elections.[3]

IV. NEW VOTING TECHNOLOGIES

A. CONTEXT

The 18 October 2015 Federal Assembly elections represented a step forward in Switzerland's development of Internet voting. As part of a long-term project to develop online voting systems, some 132,000 eligible voters from four cantons could participate in Internet voting pilots. This included all registered voters residing abroad from the cantons of Geneva, Luzern, Basel-Stadt and Neuchâtel, as well as certain registered voters residing in Geneva and Neuchâtel.[4] This was the second time that Internet voting had been piloted for out-of-country voting in Federal Assembly elections and the first time that some citizens residing in Switzerland could vote via the Internet in federal elections.[5]

The pilots represent the continuation of an incremental and cautious approach by the federal authorities to introduce Internet voting that began in 2000. To date, 14 out of 26 cantons have conducted voting pilots and 229 pilots have been undertaken at the federal level. Three different Internet voting systems have been developed during this time, two of which were used in these elections: the "Geneva system" was used in Geneva, Luzern and Basel-Stadt, and the "Neuchâtel system" was used in Neuchâtel. The third system, the "Consortium system", was developed by the canton of Zurich and has been trialled by nine cantons since 2010, although it was not authorized to be used for these elections.[6]

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[3] The cantons of Basel-Landschaft, Basel-Stadt, Bern, Fribourg, Geneva, Graubünden, Jura, Neuchâtel, Schwyz, Solothurn, Ticino, and Zurich.

[4] The total potential voters from abroad who could vote by the Internet was 34,293, comprising 7,528 from Basel-Stadt, 22,034 from Geneva, 4,186 from Luzern, and 545 from Neuchâtel. The total number of voters who could vote electronically within Switzerland was 97,841, comprising 72,868 from Geneva and 24,973 from Neuchâtel.

[5] In the last Federal Assembly elections in 2011, some 22,000 registered voters residing abroad from the cantons of Aargau, Basel-Stadt, Graubünden, and St. Gallen were eligible to vote in Internet voting pilots.

[6] The cantons that trialled the Consortium system include Aargau, Fribourg, Glarus, Graubünden, Schaffhausen, Solothurn, St. Gallen, Thurgau and Zurich.

The long-standing intention of the authorities is to ultimately provide Internet voting to all citizens in federal elections in addition to in-person and postal voting. It is also viewed as an important means of facilitating voting for citizens abroad, particularly in light of the difficulties encountered by the authorities with organizing overseas postal voting.

In 2013, the Federal Council published its third report on Internet voting, providing an evaluation of the pilots conducted between 2006 and 2012 and defining its future strategy. The report reaffirms the value of a gradual approach to introducing Internet voting and underlines the importance of a "security first" principle in future developments. It proposes new requirements, including for security, certification and verifiability. A fourth review on the use of Internet voting is foreseen in 2017-2018.

OSCE/ODIHR EET interlocutors expressed a high level of confidence in the authorities to ensure the integrity of the Internet voting systems and to administer elections impartially. In general, interlocutors voiced support for the continued development of Internet voting, but some raised questions which require further clarifications in regard to the security and the financial costs of Internet voting. Those who acknowledged potential vulnerabilities of Internet voting in terms of security and secrecy of the vote believed that the benefit of increased and easier access outweighed the risks. Other interlocutors noted a preference for faster implementation of Internet voting in all cantons and for all citizens, and questioned if so many pilots are actually required in order to determine if a system properly functions. Some also questioned the necessity of introducing this additional voting method from a cost-benefit perspective.

B.   LEGAL FRAMEWORK

Federal legislation specifies the use of Internet voting in elections. The 1976 Federal Act on Political Rights (last amended in 2015) provides minimum standards for Internet voting pilots, which is regulated in more detail in Article 27 of the 1978 Federal Council Decree on Political Rights (last amended in 2013) and the new 2013 Federal Chancellery Decree on Electronic Voting. Relevant provisions are also found in the 1992 Federal Data Protection Act (last amended in 2014).

The federal framework is complemented by cantonal legislation. Of the 26 cantons, 18 permit Internet voting for residential citizens and for citizens abroad, 2 allow it only for citizens abroad.[7] Six cantons lack a legal basis for Internet voting.[8] As voter lists are created at communal levels in six cantons, this creates particular challenges for these cantons in organizing Internet voting. Beyond legal differences, some voters can use Internet voting in one election or referenda but not the next, depending on cantonal decisions.[9]

Following the 2013 Federal Council report on Internet voting, relevant legislation at the federal level was significantly amended. OSCE/ODIHR EET interlocutors stated that the reform process was largely inclusive with debate among political stakeholders and civil society both at the federal and cantonal levels.

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[7]   Glarus and Vaud.

[8]   Appenzell Innerrhoden, Ausserrhoden, Jura, Nidwalden, Ticino, and Zug. Basel-Landschaft and Vaud introduced their legal basis for Internet voting after the 2011 elections.

[9]   For example, Geneva voters could use Internet voting for national referenda and local elections, but not in the 2011 federal elections; and Zurich voters could us Internet voting for federal referenda between 2008-2011, not between 2011- 2014, and again for the 2015 referenda.

The Federal Council Decree on Political Rights was amended to detail the procedures for authorizing Internet voting pilots, which incorporates comprehensive testing of the system prior to its use. To administer such pilots, a canton now requires a general authorization from the Federal Council and, for National Council elections, a special authorization from the Federal Chancellery. Internet voting pilots are currently restricted to a maximum of 10 per cent of the country's electorate and 30 per cent of a cantonal electorate. No limitation is placed on the number of out-of-county voters who can participate. On 1 January 2014, the restriction that only voters who lived in certain countries could vote via the Internet was removed.[10]

The new Federal Chancellery Decree on Electronic Voting established detailed technical and administrative requirements for Internet voting, thereby addressing a prior OSCE/ODIHR recommendation. The Decree includes provisions in respect of voting and tabulation procedures, voter education, responsibilities for electoral administration staff, security and risk management, certification and requirements for verifiability, auditing and testing. In line with the Data Protection Act and a previous OSCE/ODIHR recommendation, the Decree also regulates the destruction of electronic data once the final election results have been approved, along the same principles as to dispose of paper ballots.

In general, the legal framework provides a sound basis for the use of Internet voting and the post-2013 amendments addressed a large number of previous OSCE/ODIHR recommendations. However, some prior recommendations remain to be fully addressed. Despite a previous OSCE/ODIHR recommendation, in 2014, the parliament decided against adopting a legal basis for international and citizen election observers.[11] The grounds for the decision were that international rules and regulations are directly applicable and thus there is no need to develop specific federal regulations. Despite the lack of legal provisions, the OSCE/ODIHR EET was permitted to observe all stages of the Internet voting process and was granted access to information and meeting election administration members in a timely manner.

In line with prior OSCE/ODIHR recommendations, electoral legislation should be amended to explicitly allow for international and citizen election observers at all stages of the electoral process. This should include specific provisions to ensure effective observation of Internet voting.

C.   ADMINISTRATION

The Federal Council oversees the overall development of Internet voting, supported by an executive board of the Federal Chancellery. Each canton has its own team responsible for the administration of Internet voting.[12] The Federal Chancellery and the cantons exchange practice and discuss Internet voting at three levels: a Steering Committee (chaired by the Federal Chancellor) evaluates Internet

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[10]   The trials used to be limited to citizens registered in countries that are parties to the 1995/96 Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies, member states of the European Union as well as Andorra, Liechtenstein, Monaco, San Marino, the Holy See, and the territory of Northern Cyprus.

[11]   See paragraph 8 of the 1990 OSCE Copenhagen Document and the Transparency Guidelines of the Council of Europe (CoE) or Recommendation 23 of the CoE Recommendation (2004)11 on Legal, Operational and Technical Standards for E-Voting, which states that "any observers, to the extent permitted by law, shall be able to be present to observe and comment on the e-elections, including the establishing of the results".

[12]   The cantonal election commissions generally consist of representatives of political parties and independent experts, with the precise composition varying by canton.

voting pilots and consolidates strategic proposals for consideration by the Federal Council and parliament, a Support Group advises on operational and technical matters, and a Working Group serves to exchange information and best practices.

The establishment of the Working Group follows a prior OSCE/ODIHR recommendation, and OSCE/ODIHR EET interlocutors commented favourably on its functioning as a forum for harmonizing cantonal procedures for Internet voting. Overall, the pilots were administered in a professional and impartial manner.

To participate in the Internet voting pilots, cantons had to submit an initial statement of interest and send supporting documentation to the Federal Chancellery by 30 June 2014. Fourteen cantons applied and received a general authorization in December 2014 to undertake pilots to test their systems and procedures prior to their potential use in 2015.[13] All 14 cantons conducted pilots with federal popular votes/elections on 8 March and 14 June 2015 for their registered voters abroad, with Neuchâtel and Geneva also conducting pilots for registered voters residing in their cantons.

The testing process undertaken by the cantons was comprehensive and based on clear criteria as provided in the decrees and in the Technical and Administrative requirements for electronic vote casting with an emphasis on end-to-end system testing and peer–to-peer reviews among the cantons. All three systems were tested and representatives of the different cantonal administrations analysed the other systems by voting with test cards, as well as reviewing software documents, technical hardware, project plans and risk assessment strategies.

The Working Group drafted reports providing suggestions for improvement to each Internet voting system, which included the two used in these elections as well as the Consortium system.[14] The report was not made publicly available, at odds with international standards.[15] The Neuchâtel system did not present any problems, and it was recommended to insert explanatory texts regarding the Internet voting and available functions. Following the review, Geneva undertook additional testing of its system beyond the federal requirements. It was noted that some minor software modifications were introduced after testing.

In line with good practice and to enhance interoperability, the federal authorities developed open standards for the voting systems so that software used by different cantons can communicate with each other.[16] Open standards can also reduce costs and dependency on a single vendor, as well as allow easier accommodation of future changes. Not all cantons have been able to implement open standards in their systems to date. In spring 2015, Bern decided not to offer Internet voting for these elections, as its current tabulation software was not compatible with the Geneva system.

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[13]   Aargau, Basel-Stadt, Bern, Freiburg, Glarus, Geneva, Grischun, Luzern, Neuchâtel, Schaffhausen, St. Gallen, Solothurn, Thurgau and Zurich. The requirements are listed in the annexes of the Ordinance on Internet Voting.

[14]   The Geneva system was developed and owned by the canton, while Neuchâtel contracted the company Scytl and Zurich contracted the company Unisys for the development and operation of their systems.

[15]   Paragraph 19 of the 2011 United Nations Human Rights Committee General Comment No. 34 to Article 19 of the International Covenant on Civil and Political Rights (ICCPR) states "To give effect to the right of access to information, States parties should proactively put in the public domain Government information of public interest. States parties should make every effort to ensure easy, prompt, effective, and practical access to such information". See also Article 10(a) of the 2003 United Nations Convention against Corruption.

[16]   See Recommendation 66 of the CoE Recommendation (2004)11.

When developing Internet voting systems, cantons could make use of existing open standards to enhance interoperability among systems, including with tabulation software.

The specific authorization process for Internet voting pilots for National Council elections was conducted by the Federal Chancellery, based on the testing and administration of pilots held in 2015. On 12 August 2015, it was announced that the cantons of Basel-Stadt, Geneva, Luzern and Neuchâtel received authorization, while the nine cantons that used the Consortium system were declined authorization for security reasons. According to OSCE/ODIHR EET interlocutors, the authorization process was professional and the reasoning for declining authorization for the Consortium system was grounded. At the same time, they stated that the information about the reason of this decision lacked clarity and completeness as it was conveyed through a press release, and also raised concerns about the long-term implications of the rejection of the Consortium system.[17]

To increase transparency, the Federal Chancellery could provide the respective cantons as well as publish more detailed information on decisions related to the authorization of Internet voting pilots.

Voter information on Internet voting is generally available. Informational videos on how different systems work are available on federal and cantonal websites. However, contrary to good practice, voters did not have the opportunity to experiment with the applications outside of an election or referendum, including use of the new verifiability procedures.[18] While Internet voting has been in place for many years for specific groups of voters, there is still a large portion of the population unaccustomed to the procedures for this method of voting.

Voter information efforts could be increased, including with opportunities for voters to experiment with Internet voting outside of an election or referendum.

To mitigate potential problems, a risk assessment was developed as an integral part of the risk management plan, and was included in the package that cantons had to submit to the Federal Chancellery for the approval of their Internet voting system. The authorities also instituted comprehensive contingency plans for potential emergencies during the Internet voting period. The plans potentially included test alarms, but no such test was carried out for these elections.

D.   VOTING PROCESS

The voting process for both systems was largely similar. Voters could access the voting platforms via an Internet browser protected by basic Secure Sockets Layer (SSL) technology. Voters are not required to manually install specific software. The systems do not allow voters to cast an invalid vote or to change their vote after it has been cast.[19] Voters using the Geneva system were able to cast their vote online from 28 September until noon on 17 October. Voters using the Neuchâtel system could vote

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[17]   Following the decision, members of the Consortium system postponed the development of their system due to cost considerations. Several of the concerned cantons were due to meet on 16 November 2015 to discuss the consequences of the decision.

[18]   Recommendation 22 of the CoE Recommendation (2004)11 states that "voters shall be provided with an opportunity to practice any new method of e-voting before, and separately from, the moment of casting an electronic vote".

[19]   CoE Recommendation (2004)11 recommendation 13 calls for electronic voting systems to "provide the voter with a means of participating in an election or referendum without the voter exercising a preference for any of the voting options, for example, by casting a blank vote" in order to ensure free suffrage.

from 21 September until noon on 17 October. Once a voter cast her/his vote, the electronic record is marked accordingly in the voter register to avoid the possibility of multiple voting.

In line with a prior OSCE/ODIHR recommendation, this was the first time that some level of individual verifiability was provided to voters in a federal election. Each voter receives a polling card and a booklet containing the names of the candidates with an individual four digit code related to each candidate.[20] The voter had to identify themselves via a unique number printed on the polling card, and then make their choices. After an initial confirmation, the voter received an overview of her/his choices as well as reference codes that corresponded to the candidate codes in the booklet. Once the voter verified that the choices are correct, she/he entered the confirmation code of the polling card (which should be separately sealed) and the system replied by providing a final code that should correspond to the code on the polling card. This indicates that the vote had been cast as intended, thus ending the process for the voter. Further steps of verification such as confirming that a voter was recorded as cast have not yet been implemented. The introduction of the process of individual verification positively contributes to the overall transparency of the system.

From 2016, several cantons intend to provide universal verifiability, where the voter would be able to verify that the vote has been recorded as cast and counted as recorded. This complete verifiability would be then considered as a final step whereby any person or group can use mathematical means of verification to check that election results correspond to votes cast and that the process has been conducted accurately. Under current legislation, should an Internet voting system provide individual, universal and complete verifiability mechanisms, and be certified, it would be eligible to receive authorization to provide Internet voting without limitations on the number of voters.

Voters are provided with a range of options when making their choice. Each voter can cast a vote for a list as presented or modify it by deleting candidates, adding candidates from other lists, or entering the name of one candidate twice. Voters may also compose their own ballot paper by combining candidates from different lists within a constituency. Despite these complex voting options, the usability of both systems was generally assessed positively by the OSCE/ODIHR EET. Both systems could be accessed in the four official languages. The Geneva system also provides for access by persons with disabilities, while the Neuchâtel system envisions such provisions to be in place in the future.

As Internet voting takes place in an uncontrolled environment, the secrecy of the vote could be compromised as voters could potentially disclose for whom they voted by showing their choice as displayed.[21] While OSCE/ODIHR EET interlocutors generally did not view this as a risk, there are no mechanisms in place to protect against the possibility of voter coercion, group/family voting or vote-buying. The OSCE/ODIHR previously recommended that this be mitigated by allowing voters to cancel their vote by casting a new vote either online or in person at a polling station.

Votes are encrypted on the voter's computer before they are sent. According to the Federal Chancellery, new encryption measures that have been implemented ensure greater protection of data integrity. Once a vote is cast, the ballot is deposited in an electronic 'ballot box' which features several layers of encryption. Despite a previous OSCE/ODIHR recommendation, the creation of electronic

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[20]   The combination of the four digit codes for each candidate in each booklet was unique. However, the codes could be used more than once in different combinations for different voters.

[21]   This risk also applies to postal voting.

'keys' to protect encrypted data was not performed in public.[22] Physical access to both systems is tightly controlled. Moreover, a range of checks and balances are in place concerning server access. The Federal Chancellery informed the OSCE/ODIHR EET that there were no attempts of malware or denial-of-service (DoS) attacks on the cantons' servers during the electoral process.

The opening of the electronic ballot boxes and decryption of the votes took place on the morning of election day. The OSCE/ODIHR previously recommended that electronic ballot boxes not be decrypted until the start of the vote count to ensure greater security. The Geneva election commission decrypted the votes of the Geneva, Luzern and Basel-Stadt elections. Representatives from Luzern and Basel-Stadt election commissions observed this process via a live webcam. External observers would have been permitted if present in Geneva and Neuchâtel and all procedures could be followed on a large screen in the room. Prior to the opening and decryption of the ballots, electoral board members from both cantons checked the control ballot box and the control votes previously cast. The results of Internet voting were not published upon completion of the process; instead they were mixed together with the results from the paper ballots, which were announced the same night.

Procedures on how tabulation would be undertaken were distributed to the participants and observers in order that they could follow the steps of the ballot aggregating process. The procedures indicated clearly which steps were going to be taken at the different stages. However, at times steps were conducted quickly, possibly confusing participants. A total of 2,521,502 voters took part in these elections, indicating a turnout of 48.5 per cent. Out of the 132,134 voters eligible to vote by Internet, 13,370 voted online (10 per cent).[23]

E.   CERTIFICATION AND AUDIT

The Ordinance on Electronic Voting provides that if more than 30 per cent of the cantonal electorate is authorized to vote via the Internet, the system must be certified by an independent institution accredited by the Swiss Accreditation Services and appointed by the canton.[24] Certification is based on a detailed criteria provided in the Section 5 of the Annex to the Decree on Electronic Voting, including aspects related to cryptography, functionality, security of the technical infrastructure and operations, protection against attempts to infiltrate the infrastructure, and requirements for offices for printing polling cards.

In case the pilot involves more than 50 per cent of the cantonal electorate, the law provides that additional control components need to be certified. Independent certification is a key measure to promote accountability. Contrary to a prior OSCE/ODIHR recommendation to establish an independent body to certify all systems, no certification has yet been required or undertaken. Both Neuchâtel and Geneva aim to start this process separately from 2016 onwards. Both cantons indicated to the OSCE/ODIHR EET that it would be difficult to identify competent and available professionals able to certify an Internet voting system.

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[22]   The Geneva and Neuchâtel election commissions were present during the process. In Geneva it was not possible for the general public to attend the meeting on the grounds that the election commission represents the public.

[23]   Basel-Stadt had 1,120 electronic votes (15 per cent) out of 7,528 registered voters outside of country; Luzern had 745 (18 per cent) out of 4,186 registered voters outside of country; Geneva had 7,089 out of 94,902 (7 per cent) eligible voters registered inside and outside of country; and Neuchâtel had 4,416 (17 per cent) out of 25,518 eligible voters registered inside and outside of country.

[24]   Recommendation 111 of the CoE Recommendation (2004)11 states that "Member Sates shall introduce certification processes" as well as sections 6 and 7 of the Certification of E-voting systems Guidelines by the CoE.

To promote accountability, independent certification of all authorized Internet voting systems should be established. Consideration could be given to granting this responsibility to a dedicated independent agency that has adequate expertise and resources to undertake its duties in an impartial and effective manner.

Publication of the source code is currently not a federal requirement.[25] In a positive step, Geneva now allows citizens to review the source code of its system at its administration office, while the source code of the Neuchâtel system has not yet been made available. In addition, the parliament of Geneva is to review an amendment to the cantonal Act of Exercising Political Rights, which, if adopted, would allow for the source code to be made publicly available in a manner that would be generally understandable. Neuchâtel is also reviewing how to act in this matter.

Auditing is also envisaged in the law. In Geneva, independent audits have been carried out in different parts of the system by independent agencies every three years, with the next expected in 2016. The OSCE/ODIHR EET was informed that the audit criteria and findings for this system are publicly accessible. While external audits have been conducted in Neuchâtel, it has mostly relied on procedures of the Federal Chancellery to conduct internal audits. The auditing documents for the Neuchâtel system, including findings, are not publicly available, contrary to international good practice.[26]

To improve transparency, all documents and reports related to certification and audits should be made publicly available. Additionally, the cantonal authorities could facilitate access to the source codes.

V.   RECOMMENDATIONS

These recommendations, as contained throughout the text, are offered with a view to further enhance the conduct of elections in Switzerland and to support efforts to bring them fully in line with OSCE commitments and other international obligations and standards for democratic elections. These recommendations should be read in conjunction with past OSCE/ODIHR recommendations that remain to be addressed. The OSCE/ODIHR stands ready to assist the authorities of Switzerland to further improve the electoral process and to address the recommendations contained in this and previous reports. In particular, and in line with the OSCE/ODIHR NAM recommendation, the OSCE/ODIHR reiterates its readiness to assist the authorities in any future campaign finance reform, including the provision of expertise on good practices and the review of draft legislation.[27]

1. In line with prior OSCE/ODIHR recommendations, electoral legislation should be amended to explicitly allow for international and citizen election observers at all stages of the electoral process. This should include specific provisions to ensure effective observation of Internet voting.

2. When developing Internet voting systems, cantons could make use of existing open standards to enhance interoperability among systems, including with tabulation software.

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[25]   A source code is a text version of a computer programme that contains instructions for the computer to follow.

[26]   Recommendation 21 of the CoE Recommendation (2004)11 states that information on the functioning of an e-voting system should be made publicly available.

[27]   In paragraph 25 of the 1999 OSCE Istanbul Document, OSCE participating States committed themselves "to follow up promptly the ODIHR's election assessment and recommendations".

3. To increase transparency, the Federal Chancellery could provide the respective cantons as well as publish more detailed information on decisions related to the authorization of Internet voting pilots.

4. Voter information efforts could be increased, including with opportunities for voters to experiment with Internet voting outside of an election or referendum.

5. To promote accountability, independent certification of all authorized Internet voting systems should be established. Consideration could be given to granting this responsibility to a dedicated independent agency that has adequate expertise and resources to undertake its duties in an impartial and effective manner.

6. To improve transparency, all documents and reports related to certification and audits should be made publicly available. Additionally, the cantonal authorities could facilitate access to the source codes.

ANNEX: ELECTION RESULTS

National Council	Percentage of Vote	Seats	*Women*	*in %*	*Men*	*in %*
Swiss People's Party (SVP)	29.4	65	11	16.9	54	83.1
Social Democratic Party of Switzerland (SP)	18.8	43	25	58.1	18	41.9
FDP. The Liberals (FDP)	16.4	33	7	21.2	26	78.8
Christian Democratic People's Party of Switzerland (CVP/PDC)	11.6	27	9	33.3	18	66.7
Green Party of Switzerland (GPS)	7.1	11	5	45.5	6	54.5
Green Liberal Party of Switzerland (GLP)	4.6	7	3	42.9	4	57.1
Conservative Democratic Party of Switzerland (BDP)	4.1	7	1	14.3	6	85.7
Evangelical People's Party of Switzerland (EVP)	1.9	2	2	100		
Ticino League (TL)	1	2	1	50	1	50
Swiss Party of Labour (PdA)	0.4	1			1	100
Movement Citizens Romands (MCR)	0.3	1			1	100
Other (member of CVP/PDC parliamentary group)	2.4	1			1	100
	100	200	64	32	136	68

Source: http://www.politik-stat.ch/nrw2015CH_fr.html

Council of States	Seats	*Women*	*in %*	*Men*	*in %*
FDP. The Liberals (FDP)	13	1	7.7	12	92.3
Christian Democratic People's Party of Switzerland (CVP/PDC)	13	2	15.4	11	84.6
Social Democratic Party of Switzerland (SP)	12	4	33.3	8	66.7
Swiss People's Party (SVP)	5		0	5	100
Green Party of Switzerland (GPS)	1		0	1	100
Conservative Democratic Party of Switzerland (BDP)	1		0	1	100
Other	1		0	1	100
	46	7	15.2	39	84.8

Source: http://www.politik-stat.ch/srw2015CH_fr.html

ABOUT THE OSCE/ODIHR

The Office for Democratic Institutions and Human Rights (OSCE/ODIHR) is the OSCE's principal institution to assist participating States "to ensure full respect for human rights and fundamental freedoms, to abide by the rule of law, to promote principles of democracy and (...) to build, strengthen and protect democratic institutions, as well as promote tolerance throughout society" (1992 Helsinki Summit Document). This is referred to as the OSCE human dimension.

The OSCE/ODIHR, based in Warsaw (Poland) was created as the Office for Free Elections at the 1990 Paris Summit and started operating in May 1991. One year later, the name of the Office was changed to reflect an expanded mandate to include human rights and democratization. Today it employs over 130 staff.

The OSCE/ODIHR is the lead agency in Europe in the field of **election observation.** Every year, it co-ordinates and organizes the deployment of thousands of observers to assess whether elections in the OSCE region are conducted in line with OSCE Commitments, other international obligations and standards for democratic elections and with national legislation. Its unique methodology provides an in-depth insight into the electoral process in its entirety. Through assistance projects, the OSCE/ODIHR helps participating States to improve their electoral framework.

The Office's **democratization** activities include: rule of law, legislative support, democratic governance, migration and freedom of movement, and gender equality. The OSCE/ODIHR implements a number of targeted assistance programs annually, seeking to develop democratic structures.

The OSCE/ODIHR also assists participating States' in fulfilling their obligations to promote and protect **human rights** and fundamental freedoms consistent with OSCE human dimension commitments. This is achieved by working with a variety of partners to foster collaboration, build capacity and provide expertise in thematic areas including human rights in the fight against terrorism, enhancing the human rights protection of trafficked persons, human rights education and training, human rights monitoring and reporting, and women's human rights and security.

Within the field of **tolerance** and **non-discrimination,** the OSCE/ODIHR provides support to the participating States in strengthening their response to hate crimes and incidents of racism, xenophobia, anti-Semitism and other forms of intolerance. The OSCE/ODIHR's activities related to tolerance and non-discrimination are focused on the following areas: legislation; law enforcement training; monitoring, reporting on, and following up on responses to hate-motivated crimes and incidents; as well as educational activities to promote tolerance, respect, and mutual understanding.

The OSCE/ODIHR provides advice to participating States on their policies on **Roma and Sinti.** It promotes capacity-building and networking among Roma and Sinti communities, and encourages the participation of Roma and Sinti representatives in policy-making bodies.

All ODIHR activities are carried out in close co-ordination and co-operation with OSCE participating States, OSCE institutions and field operations, as well as with other international organizations.

More information is available on the ODIHR website (www.osce.org/odihr).