

INTRODUCTION

Electoral practice in the 21st century is quickly adapting to meet the expectations of an electorate that is dependent upon technology, yet is also unsure about the security and transparency issues that arise in the shift from voting in line to voting on-line. The pilot of internet voting (hereafter referred to as the e-voting project) in the September 2011 municipal elections represents a significant milestone in providing citizens of Norway with a diversity of options to exercise their right to vote and to gain increased access to the election process. Norway is an ideal context for the launch of internet voting, as Norwegians enjoy nearly universal access to the internet¹, and a large percentage of Norwegians are comfortable with using the internet for any number of social and commercial transactions.

The Ministry of Local Government and Regional Development (hereafter referred to as the Ministry) developed the e-voting project to provide an alternative method of voting for Norwegians, and the Ministry has attempted to address issues related to citizens' rights and ballot security. The pilots that will take place in ten municipalities in the September 2011 elections will be the first test of this system for all voters in these municipalities, and will aid the Ministry in determining the voter response to internet voting. Experiences elsewhere in Europe indicate that the introduction of any new voting technology can be fraught with difficulties for voters, election administrators, and other stakeholders. Pilots such as the e-voting project can provide valuable data to electoral authorities to address these issues and decide whether full implementation is appropriate. Well-designed and focused evaluative research will be critical as the Ministry assesses the opinions and experiences of voters, election officials and other electoral stakeholders during the pilot, and considers next steps in the wider introduction of internet voting in Norway.

The International Foundation for Electoral Systems (IFES) will draw on extensive experience and expertise on electronic voting, electoral reform, and election administration to effectively advise the Ministry on the evaluation of the e-voting project. IFES brings to this effort a pool of election professionals who together have more than five decades of experience advising on and contributing to electoral reform efforts, including the introduction and implementation of internet voting. The IFES team has a diverse set of expertise that would provide the Ministry with skills and experience that effectively address critical issues of importance for the pilot. This skill set includes: administration and evaluation of internet voting processes; management of stakeholder relations in the election process; provision of technical expertise to electoral authorities on electoral reform issues; legal analysis of electoral reforms; and design and

¹ According to the United Nations International Telecommunications Union (ITU) there were 4,431,100 Internet users as of June, 2010, making a penetration rate of 94.8 percent.

implementation of research to inform election administration. The expertise on the IFES team, will prepare the Ministry to effectively evaluate the e-voting project and plan next steps.

Global experience indicates that most voters have a tendency to prefer voting methods to which they are accustomed, and it can take time for new voting tools to be accepted by a significant percentage of voters. For example, only 1.9 percent of voters cast ballots through the internet in Estonia's first trial with e-voting during the 2005 local elections. That number only increased to 5.5 percent in the following election, the 2007 parliamentary poll. In the 2009 European Union election, internet turnout in Estonia increased to 14.7 percent, and rose to 24.3 percent in the most recent parliamentary elections. Voters need to be convinced that new voting technology will provide them similar or better access on voting day, while ensuring that their vote is counted accurately and safeguarded from manipulation.

However, voters are not the only group of actors who may be wary of new methods of voting. New voting technology forces election officials to navigate an unfamiliar set of procedures and guidelines, and it is essential that these officials are comfortable with the implementation of these new tools before they are presented to the public at large. Political parties, civil society organizations, and other stakeholders must be assured that their rights and responsibilities are being considered and respected during the transition to new voting methods, and they must have confidence that they are an integral part of the decision to adopt new technologies. Recent challenges to internet voting in Estonia by the Centre Party indicate that internet voting can raise concerns among stakeholders long after its initial implementation. It is thus imperative that the Ministry utilizes the e-voting project to realistically assess the reactions of voters, election officials, and other stakeholders to the use of the new technology. This research will allow the Ministry to ascertain whether and how the introduction of internet voting meets its primary goals: to increase access to voting; to expedite results compilation and transmission; to utilize resources efficiently; and to facilitate the exercise of direct democracy.

Overview of Research Approach

IFES will utilize quantitative and qualitative research methodologies, desk studies, and primary document examination to provide the Ministry with an exhaustive and robust assessment of the e-voting project. These research tools will be designed to interact with each other, ensuring that the data does not reflect a solitary perspective provided by one type of research tool. Instead, each data point will be supplemented by data from other tools, thus providing the Ministry with a holistic assessment of the e-voting pilot.

Oversight of this research will be provided by IFES experts on election administration and electoral reform efforts. IFES technical experts will ensure that the research conducted to inform

topics 4, 6, and 7 is methodologically sound and that only reliable data is utilized to inform findings. For over two decades, IFES has provided research and expertise that is specifically tailored to the countries and environments in which IFES operates. IFES will bring this experience to the assessment to ensure that findings and recommendations from the research are grounded in socio-political norms in Norway.

IFES experts will utilize the data gathered from this research, as well as their prior experience in election reform efforts, to highlight key findings from the pilot and provide recommendations for future steps toward the adoption of internet voting on a wider basis in Norway. IFES' analysis and recommendations will have as a central point of reference internationally accepted norms and standards for democratic and electoral rights, utilizing the Council of Europe's recommendations on electronic voting and other documents to inform the application of international standards in this area. IFES also recognizes that any research and assessment is aided immeasurably by a thorough review process, particularly by peers not directly affiliated with the research. Therefore, IFES will incorporate a peer-review process for all findings and reports developed by IFES researchers on this project.

It is also critical that the research conducted under this project specifically focuses on the information needs of the Ministry. To determine these needs and ensure open lines of communication, IFES will regularly consult with the Ministry and seek its input during all key phases of the research design, drafting, and dissemination process. IFES will also regularly consult with the Institute for Social Research (ISF), the coordinator of all research for the evaluation of the pilot project. These consultations with the Ministry and ISF, together with the peer review process described above, will allow IFES to conduct an assessment of the e-voting project that is both methodologically sound and adapted to targeted needs.

RESEARCH APPROACH FOR INDIVIDUAL TOPICS

The sections below detail the individual approaches, tools, and analyses that IFES will employ to address the key concerns identified by the Ministry for the evaluation of topics 4, 6, and 7. The research approaches outlined below also address the challenges IFES anticipates in the implementation of the research under each topic, and how it will work in collaboration with the Ministry to address these challenges.

A4: Efficient Counting of Votes/Fast Electoral Results

One of the key objectives of the e-voting 2011 project includes the facilitation of rapid implementation of elections and ensuring the efficient usage of resources in municipalities. These objectives are especially relevant when it comes to the counting and results publication processes. Delays or lack of transparency in the counting and result generation processes can

lead to an erosion of trust in the electoral process. Therefore, an important component of the assessment of the e-voting 2011 project will involve determining whether internet voting at least maintains or possibly advances international electoral standards related to the counting and results processes.

Analysis of this issue will focus on the number of measures of speed, efficiency and quality of the counting and results generation process and will use data collected in pilot and non-pilot elections. Issues which will be addressed include: the time taken to complete the counting and results generation processes; the resources required to complete the counting and results generation processes; complaints received about the counting process; the challenges of administering the results and counting processes for internet voting; the mechanisms for conducting audits of the counting and results generations processes; whether images of internet ballots are created and used for audit purposes; transparency mechanisms implemented for the counting of ballots and generation of results; and the levels of invalid, spoiled and blank ballots generated by traditional paper balloting, internet voting and electronic counting of paper ballots (which is also currently used in Norway).

Research Target: *The research target for this issue will be the process of counting ballots and generating results for the election, comparing the processes using internet voting with traditional hand counting of paper ballots and the electronic counting of paper ballots.*

Research Tools: *Several types of data will be collected in order to assess the speed, efficiency and quality of the counting and results generation processes:*

- 1) *Quantitative data: Election Day data will be collected concerning the numbers of invalid, spoiled and blank ballots reported in internet voting pilots. The number of counting/results related complaints received in pilot project municipalities will be collated, as will data on any such complaints upheld through the relevant dispute resolution mechanisms. Data will be collected from all pilot municipalities, as well as from a selection of comparable non-pilot municipalities as a point of comparison. Where available, historical data will also be used in order to provide comparison with previous elections in the pilot areas.*
- 2) *Qualitative data: Focus group discussions will be used to assess the extent to which key electoral stakeholders believe the use of internet voting to be sufficiently transparent to allow effective observation/oversight and whether these technologies were seen as more or less transparent than the hand counting of paper ballots or the electronic counting of paper ballots. These focus groups will include observers, political party representatives*

and candidates, and will comprise participants from the internet voting pilot municipalities.

- 3) *In-depth semi-structured interviews will be conducted with election administrators to assess how easy they found the administration of the counting and results generation process in the pilot areas. Another issue that will be addressed in these in-depth interviews will be the mechanisms in place for election administrators to audit the counting and results generation process, how easy they were to understand and implement, and to what extent stakeholder access was provided to these audit procedures. Interviews will take place in all pilot project areas and will include the key staff involved in the administration of the technologies. A key staff member in each internet voting municipality will be interviewed.*

Analysis and Reporting: *Statistical data will be used to indicate the quantitative impact of using internet voting in terms of the comparative number of invalid, spoiled and blank ballots (invalid and spoiled ballots will be zero for internet voting, but the comparison to paper balloting will be indicative of the benefits of using internet voting); the speed of the counting and results processes; the resources required for the counting and results processes (and impact on cost); and the quality of the counting and results processes (with the number of complaints about counting, and how many were upheld, as one of multiple indicators of this). Similar data collected from non-pilot areas and historical data from the pilot project areas (if available) will be used as a point of comparison for the data collected during the pilots.*

The qualitative data will be used to assess the quality of, and impact on, the transparency of the counting and results generation processes. The perceptions discussed in the focus groups will be compared to the reality of transparency mechanisms provided. The in-depth interviews with election administrators will help to clarify these transparency mechanisms as well as provide another assessment of the efficiency of using the technologies.

Research Challenges: *Some of the issues being addressed in this component of the assessment are difficult to research, especially concepts such as transparency and ease of administration. Transparency is a very subjective concept and the results of the focus group discussions will need to be carefully analyzed against electoral procedures to provide an objective analysis of the mechanisms for transparency that do exist. Change will often be viewed in negative terms as it represents a move to more unknown/uncertain circumstances and this will need to also be kept in mind for the focus group discussions as well as the interviews with election administrators. A final challenge relates to the availability of historical statistical data required for the quantitative analysis of this issue. If this is not available then the quantitative estimation of*

impact will have to be conducted solely on data collected during the forthcoming election in pilot and non-pilot municipalities.

Personnel: *Much of the quantitative data required for this analysis should be publicly available from the election administration, and therefore easy for a single researcher to collect on and after Election Day. The focus groups discussions will be moderated by expert moderators, and will be observed by IFES experts who will be provided simultaneous translations by professional translators. The in-depth interviews will be conducted by IFES experts in collaboration with professional translators to assist the IFES expert with translation issues.*

Timeline: *Any historical election statistics available can be researched and collated a month before the pilots will take place. The logistical plans for the conduct of the focus group discussions and in depth interviews will be finalized two weeks before Election Day. Focus groups and in-depth interviews will take place in the week after the pilots. A preliminary report on findings from this topic will be developed and delivered to the Ministry during IFES' meeting with the Ministry in November.*

A6: International Experience with E-Voting

The Ministry would like the research teams to provide an overview of international experiences with e-voting, with a specific focus on uncontrolled environments but including all types of e-voting experiences. The research is envisioned to address how other countries and localities using internet voting are addressing many of the issues covered in topics A1 through A7. The extensive experience of IFES technical team members will allow IFES to not only use secondary data sources to provide an overview of the international experience, but also to use first-hand experiences to illustrate many of the issues related to e-voting in uncontrolled and other environments.

Research Target: *Given that the main goal in this topic consists in providing a comparative framework of international experiences, the target for research is necessarily composed of those countries that are using (or have used) e-voting technologies. Although the research will emphasize those countries employing remote voting systems (e.g. Estonia, some Swiss cantons or Austrian Student Unions as a non-political example), this issue also encompasses other countries with non-remote technologies which will be covered in the analysis.*

Research Tools: *E-voting always raises a great deal of interest for those interested in or working on elections, because it entails significant technical, legal and social challenges. This interest is an asset for this research topic because most countries are keen to generate specific documents regarding their own experience, while research groups, political parties and/or civic*

NGO also provide information from their perspectives. This secondary data on experiences with internet voting will be a primary tool utilized for this research.

Besides this significant amount of secondary data, the IFES team will be comprised of several individuals who have had first-hand experiences with e-voting implementations and trials, and whose inputs will provide particularly enlightening comparisons with the Norwegian trials. These individuals include Michel Chevallier, John Turner, and Jordi Barrat.

Michel Chevallier has been working on the Geneva internet project since 2001. This project follows the introduction of remote voting in the form of postal voting. He can, therefore, bring a long experience of managing ballots in a country where remote voting in any form represents now 95% of all cast ballots. He has taken part in the political debate around internet voting in Geneva, where the issue is still contentious, and has been playing a key role in providing information for parliamentary debates.

John Turner has considerable first-hand experience in conducting multi-channel electronic voting using internet, SMS text messaging from mobile phones and/or electronic kiosks in dedicated venues. His experience relates to the design, implementation, and evaluation of projects. In addition, he has participated as a member of the Project Board established by the UK Government to select and oversee the evaluation of all types of electronic voting carried out under the pilot programs under legislation introduced in 2000.

Finally, research projects conducted by Jordi Barrat, a constitutional law professor in Catalonia, encompass a wide range of countries using e-voting technologies, including internet voting. He has been directly involved in analyzing both Spanish experiences (e.g. Madrid Participa, EU Constitution Referendum, CETIB) and other international examples (e.g. Venezuela, Mexico, Belgium and France).

Analysis and Reporting: *The analysis and reporting for this topic will be structured in three sections: (a) comparative research with other countries using internet voting in uncontrolled environments; (b) in-depth analysis on how these countries are solving some strategic issues of i-voting; and (c) overview and analysis of other countries using electronic voting.*

- a) Comparative research with other countries using e-voting in uncontrolled environments: This section will depict the experience of each country/locality covered in the analysis and carry out comparative research of each experience with the Norwegian pilots. A first part of this section will provide a data sheet of each experience, including the type of elections where internet voting is used (e.g. local, regional, referenda), the population involved or the turnout. The main goal of this first subchapter is to create an internet voting map or guide that afterwards will be further developed. As suggested by the*

specification of requirements, the comparison will be based on the same issues (A1 to A7) and it will analyze the key steps in any electoral process, emphasizing the particular features in the case of internet voting (e.g. registration for e-voting, voter identification, voting revocation, verification of the vote by the voter, voting period, tabulation or audit of results).

- b) In-depth analysis on how these countries are facing some strategic issues: The challenge of any comparative analysis consists in combining the use of a significant amount of data with the generation of specific analytical outcomes. This is the reason why, taking into account the general map drawn up in section (a), we will select key features in order to conduct more specialized analysis. The selection of these features remains open and will be decided in conjunction with the Ministry and ISF. For the time being and according to their significance for the implementation of internet voting systems, we propose the following areas of specific focus: (1) the digital divide; (2) freedom of the vote; and (3) certification procedures.*
- c) Overview of other countries using electronic voting: Electronic and internet voting have significant differences, but they also share some key features. Therefore, any international comparative study should take into account that e-voting actually began with non-remote machines and that these solutions are still the most accepted worldwide. Following the same schema proposed for section (a), the analysis will provide an individual data sheet for the most significant experiences and a subsequent comparison among them.*

Research Challenges: *The primary challenge in this research topic is in processing the large amount of data available and prioritizing data points to conduct effective comparative research. Internet and electronic voting systems have already been tested/implemented in a significant number of countries and therefore it is increasingly difficult to get a good idea of worldwide experiences.*

This challenge will be addressed with selective and qualitative approaches. Specifically, we will gather a handful of strategic data points coming from a selective group of countries using internet or e-voting and make in-depth comparisons among them. Therefore, the general map of internet and e-voting experiences will be balanced by more detailed studies.

Personnel: *IFES technical election experts will lead the analysis.*

Timeline: *Individual data sheets concerning sections (a) and (c) will be delivered in early September 2011 to the Ministry in conjunction with a proposal for in-depth studies of section (b). After its approval by the Ministry, the final draft report will be delivered mid-December 2011.*

A7: Compliance with International Standards

It is important for any pilot of new voting methods to comply with existing standards and guidelines developed to ensure that the fundamental rights of voters and participants are respected and protected. This topic focuses on assessing the e-voting project against standards, guidelines, and recommendations found in key international documents focused on electoral rights in general and electronic voting in particular. These include the Council of Europe's recommendations on electronic voting, the United Nations International Covenant on Civil and Political Rights, and the European Declaration of Human Rights. The research approach will rely primarily on desk studies and first-hand experiences to analyze compliance of the Norwegian e-voting approach against the standards and guidelines found in the international documents.

Research Targets: *The main focus of this section is on linking the Norwegian trials to the relevant legal international documents concerning civil and political rights as well as e-voting standards. The United Nations International Covenant on Civil and Political Rights and the European Convention of Human Rights (ECHR) lay out a catalog of human rights that include those directly addressing electoral matters. Moreover, the Council of Europe promoted an on-going public discussion on e-voting challenges that in 2004 generated the Recommendation on Legal, Technical and Operational Standards for e-voting and afterwards even more specific documents regarding the implementation of e-enabled elections, e-voting certification procedures and also guidelines for transparency mechanisms for e-enabled elections. All three texts were discussed during 2010 and subsequently approved by the CoE Committee of Ministers. In addition, the CoE's Venice Commission also generated some documents on electronic voting issues from a constitutional law point of view. Finally, the OSCE's Copenhagen Document set out some electoral commitments that OSCE/ODIHR has to monitor and which can also be used as a point of comparison.*

Research Tools: *Desk studies and first-hand insights will be the main research tools used to analyze compliance with international standards. In addition to analysis of the documents mentioned above, personal insights will also be very useful taking into account that some members of the team have been directly involved in deliberations on e-voting recommendations in the Council of Europe. Michel Chevallier attended several meetings as the Swiss and/or the Geneva representation at the Council. Jordi Barrat has also worked for the Council of Europe as an e-voting expert. He has been keynote speaker and the rapporteur of the working group that set up the 2010 guidelines on e-voting certification. Moreover, in 2007 the Council asked him to*

conduct a comparison between the 2004 Recommendation and the new e-voting initiatives proposed by the Belgian government.

Analysis and Reporting: *The report will be based on the Recommendation of the Council of Europe approved in 2004, although there will be supplementary analysis based both on generic civil and political rights declarations (e.g. ICCPR, UDHR and ECHR) and the more specific guidelines also approved by the Council of Europe.*

Given that the Council of Europe recommendation includes more than one hundred guidelines, the report will provide both a general and specific assessment of the Norwegian trials against these guidelines. The report will also take into account the extended version of the recommendations. A general assessment of the Norwegian trials will be made using these guidelines. In the second step of this analysis, and in conjunction with the Ministry, the report will pick up some key elements of the Norwegian system in order to conduct a more thorough analysis of the Norwegian trials compared to these selective guidelines.

The generic political rights provisions of the ICCPR, UDHR and ECHR include differing types of standards on human rights issues and therefore the report will only take into account those directly linked to electoral procedures or other related factors such as, for instance, the principle of equality.

In addition, the three recent Council of Europe publications will be analyzed to determine the extent to which the Norwegian pilots complied with guidance on the implementation of e-enabled elections, certification procedures and transparency mechanisms. Although they are only guidelines and not formal recommendations, the documents may be very useful to provide a deeper analysis focusing on some strategic points. The extended versions of the official documents provide detailed explanations to the guidelines themselves and can be used to assess the compatibility of the Norwegian pilots.

Finally, other international documents, like those from the Venice Commission and the Copenhagen Document, will be used to supplement and provide nuance to previous findings.

Research Challenges: *There are three broad challenges facing research into this area: access to documents; analysis of international documents with different structures and goals; and general and selective approaches. First, the research outlined above will require a detailed understanding of electoral procedures in the pilot areas and may require access to some documents which are not available in English. Therefore, the full analysis may require that these documents be translated before the analysis can take place.*

Second, the documents that will be used to define the framework of standards are varied in many ways. The documents vary in terms of their international standing and ability to generate binding obligations on states, they vary in their specificity and applicability for the pilot technologies being used in Norway, and they also vary in the extent to which they are clarified/defined by other institutions and rulings (for example, by UN Human Rights Committee comments on the ICCPR or rulings of the European Court of Human Rights). The challenge will be to weave these different kinds of source documents together into a coherent framework of analysis for the Norwegian pilots, especially with respect to standards/guidance on electronic voting and counting.

Finally, given that the specific e-voting standards documents cover many different aspects (e.g. technical, legal, social), the report will have to combine the analysis of a significant amount of data with the generation of specific analytical outcomes. It is worth noting that the collection of large amounts of data risks generating a superficial analysis and the collection of few data points may fail to provide a suitably comprehensive analytical framework. Therefore, selective approaches will be used to address this problem.

Personnel: *IFES technical election experts will lead the analysis.*

Timeline: *IFES anticipates completing the analysis of compliance with CoE recommendations and human rights conventions by mid-October 2011, and the analysis against specific CoE guidelines will be completed by mid-February 2012. IFES will have regular consultations with the Ministry and ISF during all these phases to ensure a final analysis that meets the Ministry's needs.*