

Research and evaluation of the e-vote 2011-project

Part 3: Annex 1 Specification of requirements Case no. 11/205

1. Background

E-voting trials will be conducted in the Norwegian municipal and county council elections in September 2011. Ten municipalities are participating in the trials, and voters in these municipalities will have an opportunity to vote online. E-votes can only be casted during the advanced voting period. E-voting will supplement the ordinary paper vote.

The primary objectives behind the e-voting 2011-project are to provide better accessibility than current paper-based voting, ensure rapid implementation of elections and ensure efficient resource usage in municipalities, as well as to facilitate the exercising of direct democracy. The e-voting solution is designed to comply with democratic principles and electoral legislation. It has been important to maintain the current high level of confidence in the electoral process.

As part of the e-voting 2011- project a new state-owned electoral administration system is also being developed. The electoral administration system will also be tested in 2011 by the ten municipalities, plus one county. This system includes a solution for e.g. controlling candidates and electoral lists, preparing and controlling electoral rolls, as well as using electronic electoral rolls at polling stations, recording advance votes, electronic counting (scanning paper ballots) and calculating results. The administration system will be used by local electoral authorities throughout the electoral process.

Both the new electoral administration system and the e-voting solution, will be owned, operated and maintained by the government. The system is fully based on open source software.

The ten municipalities that have been selected to participate in the e-voting trials are **Bodø**, **Bremanger**, **Hammerfest**, **Mandal**, **Radøy**, **Re**, **Sandnes**, **Tynset**, **Vefsn**, **and** Ålesund. A total of 160,000 people entitled to vote live in these municipalities. In its selection the Ministry emphasised including municipalities that will ensure variation and representativeness. The size of the municipality, composition of the population and geography were important factors taken into consideration. Competence and motivation have also been afforded weight.

Møre og Romsdal County will also participate in testing the electoral administration system, including electronic counting and testing new paper ballots. Voters in Møre og Romsdal County will not have an opportunity to vote electronically with the exception of voters in the municipality of Ålesund (which is participating in the e-voting trials).

In order to vote electronically the voters in the municipalities participating in the trials must be able to identify themselves with the use of electronic ID (MinID).

Prior to the election every voter will receive an individual voter card containing codes for the various electoral alternatives. These codes will be randomly generated and unique to each voter. Once the voter has voted, he/she will receive a receipt via SMS with a code. This code can be compared to the codes on the voter card to confirm that his/her vote cast has been registered correctly and as intended. These return codes are sent by SMS and generated through advanced cryptography, which to safeguard the principle of the secrecy of the vote.

The e-voting solution is designed to ensure that voters who vote online will always be able to change their mind and cast their vote again, either electronically (as many times as they want) or by voting using a paper ballot in the advance voting period or in the polling station on Election day. A paper ballot vote will always override an electronic vote.

Pre-pilots have been conducted in the municipalities participating in the trials throughout autumn 2010 and winter 2011 with a view to testing and refining the e-voting solution. By 19 May 2011, all of the ten municipalities participating in the trials will have tested e-voting online either in a youth council election or by arranging local referenda on various issues.

Evaluations, consisting of surveys and in-depth interviews, have been carried out in all the pre-pilots. The evaluations were carried out by the polling institute Synovate. This evaluation is based on a questionnaire from 200 randomly picked non-voters in each municipality, a questionnaire tailed to the e-voting software and in depth interviews with selected voters and non-voters in each municipalities. Data from the evaluations will be made available to vendors.

General information in relation to the electoral system in Norway is available on www.valg.no.

2. Contract object

The e-voting trials in ten municipalities shall be evaluated to see how and to what degree the system complies with democratic and electoral principles and the Council of Europe Recommendation on e-voting.

The objective of this research and evaluation contract is to produce information and knowledge about key aspects of e-voting. In autumn 2012, the Ministry of Local Government and Regional Development will report the results and experience gained from the trials to the Storting (Norwegian parliament). This research and evaluation contract will provide important input to this report. The administration system will be subject to a separate evaluation, but certain elements will also be relevant in this contract.

The contract is divided into two areas, A and B. The providers are qualified for one or both of these. Those that are qualified for both areas can submit tenders for both area A and B. Providers that are only qualified for one area, may only submit a tender for that area.

3. Customer's requirements

3.1 Area A: Research projects

The customer has identified the following areas that should be covered in the research and evaluation contract A1-A7. The customer also opens for additional topics within the framework of the project, and invites the providers to give a description of possible new topics (section A8).

The customer requests the providers to describe how each of the topics may be examined according to the questions and problems described in section A1-A7. The providers are free to suggest additional problems to be analyzed, beyond the questions described by the customer.

The providers may choose to submit an offer on one or more topics (A1-A8). It is important that the providers in annex 2 submit a project proposal for each of the topics they submit an offer to.

In the project proposal the providers should also describe their choice of methodological approach for each topic.

The customer believes that it is important that the vendors awarded contracts on this area have knowledge about Norwegian political system and political culture, as well as Norwegian electoral rules and electoral research.

Four of the municipalities are also involved in trials with voting rights for 16- and 17year-olds. This opens for interesting comparisons which should be considered where relevant (see section 4).

A1: Availability and accessibility for the voter

Being able to vote in an election is a democratic right. According to national and international standards electoral authorities have a duty to ensure that the actual act of casting a vote is accessible to all those who are entitled to vote without significant hurdles. One of the e-voting project's primary objectives is to make it easier for voters to exercise their democratic rights. Therefore, it is important that the evaluation analyses the extent to which voters experience better availability due to e-voting compared with paper-based elections. This analysis should look at different groups e.g. people with disabilities, people resident abroad, conscripts and students. The evaluation should also cover the impact of increased accessibility for selected groups with special needs such as disabled and blind people. Their thoughts and opinions on e-voting with regard to availability will be of particular interest.

A2: Trust and credibility

The Norwegian general public has a high level of confidence in the electoral process in Norway, and one objective of the e-voting trials is to maintain this level of trust. Analysing attitudes to e-voting and trust in the electoral process will be key points in the evaluation. A comparison of trust and attitudes to e-voting in different groups of the electorate should be included. A comparison must be made between the voters' confidence in e-voting versus paper-based elections. The analysis should include voters in the municipalities participating in the trials, as well as voters in the rest of the country¹.

A3: Secrecy of the vote (e.g family voting, undue influence)

Secret elections are a key principle in all modern democracies and vital to ensure free and fair elections. In order to ensure that voters can vote based on their convictions, it must be possible to cast votes unseen and undisturbed, and without the possibility that the vote can be traced back to the voter. Secret elections are closely linked to the principle of equal voting rights (one person - one vote). The secrecy is intended to ensure that no one deprives anyone else of their vote by force or through other means and in this way themselves acquire more than one vote.

Internet voting trials make the casting of votes available in uncontrolled environments (at home). The impact of moving the election from controlled (poll station) to uncontrolled environment presents new challenges in relation to secret voting. It is particularly important to analyse two potential problems in connection with this. The first concerns undue influence of the voter while he/she is casting his/her vote in uncontrolled environments, including among others the phenomena of so-called "family voting". The second concerns the buying and selling of votes. A related issue is people who give their vote to other people, or voluntarily lets other people decide how they cast their vote. The customer would like to obtain information about the attitudes of various groups of voters in relation to these problems, and whether and to what extent this actually happens.

The issue is difficult to research due to the fact that votes are being cast in uncontrolled environments. If a quantitative approach is chosen in the form of a questionnaire survey, the challenge will be to obtain honest responses to the questions. Secondly, experience shows that those groups one often fears may be vulnerable to undue influence/buying or selling votes have a higher drop-out rate in questionnaire surveys or are harder to target. The customer believes the research must be supplemented with qualitative methods, for example in the form of interviews and focus groups.

Providers are asked to propose solutions to this challenge in their project proposal.

A4: Efficient counting of votes/fast electoral results

Another key objective of the e-voting trials is to count the votes faster and more efficiently. The customer wants the provider to analyse whether this is achieved. The analyse should cover voters, election administrative staff and politicians.

¹ See section 4 concerning collaboration with the 2011 Local Democracy Survey.

A5: Participation and election turnout

Even if election turnout alone is not a key reason for conducting e-voting trials, an analysis of the extent to which the trials influence election turnout will be of great interest.

It would be difficult to account for all factors that might have influenced election turnout in the municipalities participating in the trials. Nonetheless it will be important to analyse the extent to which the opportunity to vote electronically influenced voter participation. The extent to which groups of voters that traditionally have low rates of participation were mobilised is of particular interest.

Examining e-voters' previous participation in elections will provide an insight into the extent to which new groups of voters are getting involved or whether one is only mobilising groups of voters with already high rates of participation.

What characterises the typical e-voter will also be of interest. This analyse should include the significance of a series of socio-demographic background variables (gender, age, education, income level, etc). The relationship between e-voting and digital competence should also be analysed. The same applies to the extent to which e-voters stand out with regard to political involvement/forms of participation, choice of party, etc.

A6: International experience with e-voting

The customer would like to acquire an international overview of information which draws on research from other countries with experience of e-voting in uncontrolled environments. Comparative research into Norwegian and international data about e-voting should also be included. The customer also envisages international research being drawn on to shed light on the other issues (A1-A8) where relevant. The customer is also interested in an overview over trials with electronic voting world-wide.

A7: Compliance with the International standards

The customer would like to receive an analysis of the extent to which the e-voting trials is in compliance with international standards, hereby the Council of Europe Recommendation on legal, operational and technical standards for e-voting, the United Nations International Covenant on Civil and Political Rights and the European Convention of Human Rights (ECHR).

A8: Open category – providers may suggest additional topics

Providers will be free to propose other issues within the framework of the project.

3.2 Area B: Coordination

This area involves coordinating the research projects and responsibility for writing the main report. The vendor awarded contract on this area will bear overall responsibility

for planning data collection including ensuring the appropriate collection and utilisation of data between the researchers. The coordination must ensure user groups not receiving unnecessary questionnaires. The main report should consist of a summary of the research results in area A, draw lines between various findings, and provide an overall evaluation of the e-voting trials.

In the project proposal in annex 2, providers on area B must describe how they would resolve the coordination task, including the resources that would be made available for this work, the contact forums they envisages using, and their understanding of the different roles. Providers on area B must describe their experience from equivalent coordination projects and document their knowledge about Norwegian political system and political culture, as well as Norwegian electoral rules and electoral research. Account must be taken of the fact that the customer is willing to sign contracts with more than one vendor in area A.

4. Requirements -Data collection and methodology

The customer envisages the evaluation combining different research design methods and using both quantitative and qualitative research methods. The providers must describe their choice of methodological approach.

Experience gathered from earlier e-voting projects in other countries indicates that the project's expectations concerning the proportion who will vote electronically in the 2011 local elections should be moderate. ² If a small number of voters cast their votes online in the e-voting trials, this could present challenges with regard to obtaining enough respondents who have voted electronically to participate in quantitative surveys. Providers are asked to explain how they envisage resolving this problem.

Close collaboration is planned between the providers awarded research projects in the e-voting project and research groups working on two additional projects financed by the Ministry of Local Government and Regional Development. One of these is the 2011 Local Democracy Survey (Lokaldemokratiundersøkelsen 2011), conducted in connection with the 2011 municipal and county council elections and based on data collection from app. 5000 persons nationwide. This survey will ask questions about attitudes towards e-voting and it will be possible to propose questions about e-voting for this survey. The contract with the Local Democracy Survey stipulates that the processed data from the survey relevant for evaluating the e-voting will be made available immediately after being collected.

The other research group is engaged in evaluation of the trials in 20 municipalities involving voting rights for 16- and 17-year-olds. Four of these municipalities are also

 $^{^2}$ However, the latest pre-pilot had a turnout of 89 % electronic votes and 11 % paper votes and a total turnout of 21 %. 70 % of the total votes were cast from home using the internet.

participating in the trials with electronic voting.³ This is a unique opportunity to obtain data as we have the combination of municipalities with and without both young voters and e-voters. Close collaboration between the researchers involved in the projects will be facilitated here too.

5. Organisation and progress schedule

It is vital that the research project can be started up quickly and conducted within the stipulated time frame. The customer wants the service to be provided between 11 May 2011 and 1 June 2012. The results for area A should be delivered as soon as possible but without compromising quality. The final report from area B should be delivered within 1 June 2012

The providers must describe how they plan to organize the research project. In annex 3 the providers should describe the composition of the research group involved in the different areas/topics, as well as give an estimate on the number of hours needed. The providers should also give estimates on the distribution of estimated hours for each category of personnel involved.

The providers should also in annex 3 describe how they plan to organise a quality assurance system for this research project.

In annex 4 the providers should present a draft progress schedule based on some main milestones set by the customer.

The customer will request to be consulted in different phases of the project. This is especially relevant in connection with the design of questionnaires/interviews (both in an early phase and in later phases of the design).

The customer will request documentation of preliminary findings during the analysis period. The customer will also request to be presented with preliminary drafts of all final reports in area A and B.

Reports for research projects in area A can be submitted in Norwegian or English. Summaries shall be written in both Norwegian and English. The main report that summarises the entire survey and draws overall conclusions (area B) shall be written in Norwegian with summaries in both Norwegian and English.

³ These municipalities are Hammerfest, Re, Ålesund and Mandal