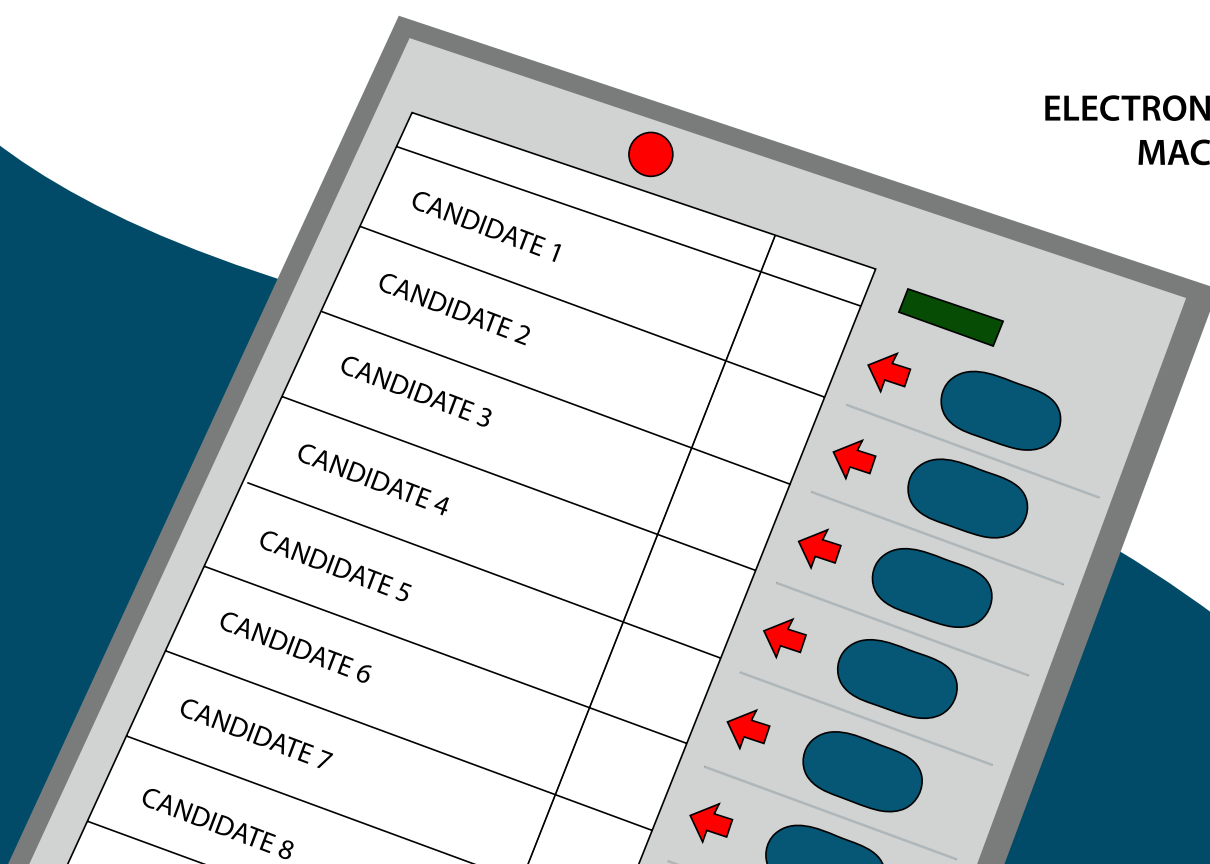


Implementation of the Machine Voting in Bulgaria and Supporting the Informed Debate

**ELECTRONIC VOTING
MACHINE**



Main Recommendations

The use of technologies in elections is growing. Digital solutions are already used in different phases of the electoral cycle by election management bodies (EMBs). ICTs role in the administration and organization of elections is getting more and more crucial. Any breakdown of an election technology, security breach or programming error can incur tremendous cost for the electoral management body (EMB)—and may undermine voters' trust, reduce voter participation or even cause national unrest. While not all of these risks are avoidable, they could be mitigated if good planning and quality control, adapted to the specific situation are applied.

I. The Bulgarian case - context

The Bulgarian Election Management Body – the Central Election Commission is an expert institution, which is currently comprised of 21 commissioners. They are however recruited on the basis of political quotas. The institution lacks any real capacity in planning and implementation of voting technologies.

The idea for implementing technologies in the electoral process and particularly the use of voting machines originated in 2013. After 6 years of both testing and binding votes, in 2019 the Bulgarian parliament decided that machine voting would become the only voting method for all elections after 2019. Later in 2020 the decision was revised and the paper ballots remained as one of the two possible methods for casting a vote in Bulgaria.

The final decision of the Bulgarian parliament for implementation of voting machines was taken on 8 October 2020, leaving a period of less than 7 months for the real process of acquisition of the voting machines, the planning and the implementation of the process.

The fact of the fluctuations in the legislation during the last two years regarding the introduce of machine voting, as well as the final decision of the Parliament so close to the election day may leave voters unsure for the actual method of voting, especially when one of them involves acquisition of specific skills just months before the elections.

During the last 6 years of machine voting experience in Bulgaria, both in testing and bidding modes, one company has won all the tenders for the delivery of the voting machines. The company is engaged not only with the machines delivery but also with the logistics of transportation, servicing, training of staff, etc. Thus the company is not only in a very dominant market position but has effectively acquired more than crucial role in the conducting of the elections.

II. Main recommendations:

1. Special attention to testing and certification, with more stakeholders involved

The elections are one of the most trust sensitive processes. This becomes even more crucial when technologies become involved. In a situation when the trust in the electoral process is being attacked or undermined it is very important that the authorities consider specific measures like certification and testing of the systems to build trust in the process. In the case of Bulgaria, the more trust you have to build, the more you need to invest in measures of certification and testing. A lesson learned from previous cases where the certification of the voting machines was not public, shows that it is worth reminding that any auditing or certification process should aim at increasing the voters' trust and not just to review the performance. That is why there are several important aspects that should be taken into account:

First, Bulgaria needs to access the level of trust in the institutions that are going to be engaged in the certification and testing process of the voting machines, once they are purchased. The authorities may consider a more complicated model for certification of by (with the participation of) more than one stakeholder. It could also include public but also private entities. The authorities may also search for international support in their assessment should the trust in the national stakeholders is not high enough to build trust in the implementation of the voting machines. It is a good approach to involve even the most sceptical outsiders of the process, so that they can be convinced that it meets their standards.

Secondly, it is good to bear in mind that the process of certification and testing is not only about technology. Very often in elections in which the technology works perfectly, other process fail – logistical, training, personnel.

Thirdly, in the process of certification and eventual testing of the voting machines, it is important from the beginning, to be clear what is being certified and tested. Different assessment needs to be done of the software (installed with its latest version to be used in the election day), the hardware, and the personnel who are going to operate the voting machines.

Fourth, the trust in the implemented technology comes as a result of continuous transparency effort by the institutions. The short period for period for procurement led to a worrying lack of transparency for the whole procurement process.

2. Translation of legislation into specifications:

When constructing and evaluating election technologies (and their components and processes), the legal requirements have to be transformed into technical requirements the certifier can use for the evaluation. Very often the legal frameworks – national or international are general principles. Expressions like “shall meet the highest standards for” that can be found in different parts of the Bulgarian legal framework are acceptable principles for legislation. However, in

order for the system to be auditable and certifiable, detailed technical requirements should be developed so it can meet the Council of Europe Recommendations on standards for e-voting. According to the Council of Europe guidelines on the implementation of the provisions of Recommendations on the Standards of e-voting, “Defining the aims, requirements in terms of software, operating system, hardware and e-voting process, and the scope and methods will contribute to the effectiveness of the certification process, the usability of the certification regime and the overall transparency of e-voting systems.” So the authorities need to develop a set of technical criteria for the different hardware parts of the hardware of the voting machines and for the software. This will guarantee the possibility for quality control and certification.

3. Clear agreements for publishing the certification reports by the certification authorities

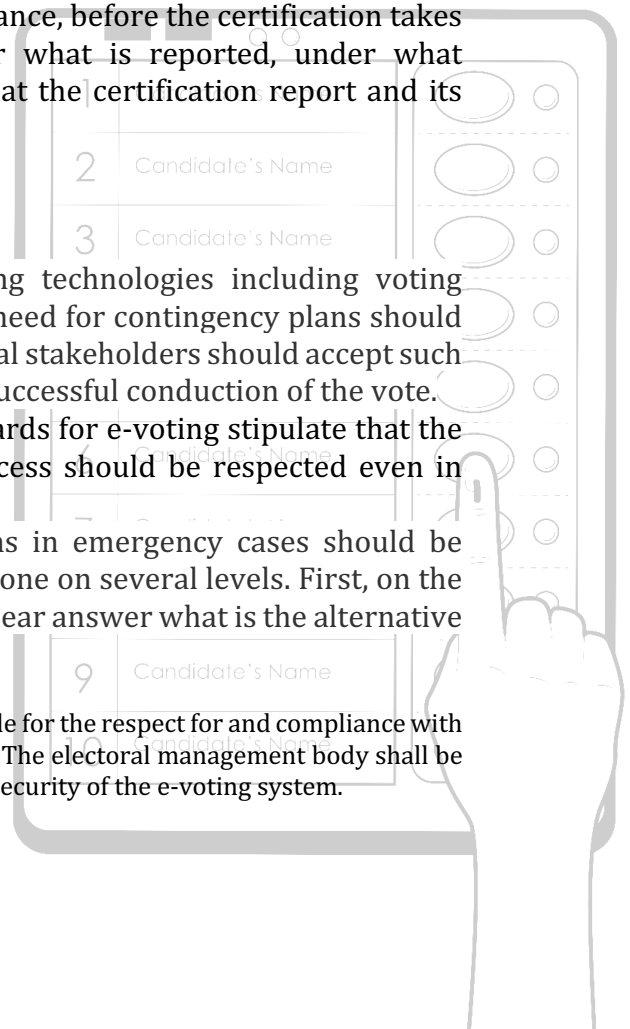
Sometimes even when the certification has been done properly, this does not produce the needed transparency and subsequently it does not increase the public trust. One of the reasons quite often are specific clauses and rules in the document that is regulating the relationships between the vendor and the certifier. The so-called non-disclosure agreements or other similar documents could prevent the certifier from publicly disclosing the details from the audit of the voting machines or other technologies. As the main aim of the certification is more than purely evaluating the performance of the equipment, but building trust, the authorities need to pay special attention to those non-disclosure agreements and bring them in line with Recommendation 37 from the CoE Recommendations on the e-vote. Those conditions should be made public in advance, before the certification takes place for public scrutiny. It should be clear what is reported, under what conditions, to whom. This would guarantee that the certification report and its publication would build the public trust.

4. Make contingency plans

The possibility of a breakdown of the voting technologies including voting machines can never be entirely excluded. The need for contingency plans should not be seen as prediction for a failure. All political stakeholders should accept such a plan as a measure that would guarantee the successful conduction of the vote. Council of Europe Recommendations on standards for e-voting stipulate that the compliance with all requirements for the process should be respected even in cases of failures and attacks.¹

Procedures and plans for alternative solutions in emergency cases should be foreseen. In the Bulgarian case this should be done on several levels. First, on the level of the legal framework there should be a clear answer what is the alternative

¹ (40) The electoral management body shall be responsible for the respect for and compliance with all requirements even in the case of failures and attacks. The electoral management body shall be responsible for the availability, reliability, usability and security of the e-voting system.



scenario if the voting machines fail at any point of the process – starting from the initiation of the machines, ending with a possible discrepancy between the electronic recount and the manual recount of the paper trails. Secondly, there should be a logistical contingency plan that should be activated in different emergency situations. Thirdly, there should be a contingency plan for the functions of the personnel and their responsibilities in case of a breakdown.

4. EMB should have the ownership over the process of implementation

The implementation of new technologies in elections requires specific skills and knowledge by the administration. Very often the authorities choose to seek support from other stakeholders or private entities to compensate for this lack of competence. The danger here is that the EMB can become too dependent on private vendors or other stakeholders. In this case the EMBs can lose the ownership of the whole process of organizing elections. This is the reason why, especially in the cases of permanent EMBs, which is the case in Bulgaria, specific capacity for dealing with the main technological and logistical processes should be built. Without such basic ability and knowledge on the process, for the EMBs it is sometimes difficult even to control and observe the execution of the steps of the implementation of the election technology and the voting machines in particular. What is more, in contested elections, the issue of de facto independence and technical competence of the EMBs becomes often an object of public scrutiny. Thus the EMB's ownership of the whole process, based on its capacity and competence becomes the only way to defend the election result.

6. A serious voter education program

As the Guidelines on the implementation of the provisions of Recommendation on E-voting by the CoE put it, unlike the traditional voting methods which are already well tested, the introduction of new voting technology challenges the voters.¹ Even though some part of the voters in the country already used the voting machines, the potential first time machines voters for the forthcoming Parliamentary elections will be around 3.5 million. That is why, although Bulgaria already had several testing and binding votes with the use of voting machines, the effort to maintain the voters' understanding and confidence in the voting system should be continuous and persistent. What is more, a detailed public information on the implementation of e-voting system is part of the CoE Recommendations.² A voter education program will help in several ways:

¹ Guidelines on the implementation of the provisions of Recommendation CM/Rec(2017)5 on standards for e-voting,
https://search.coe.int/cm/Pages/result_details.aspx?ObjectID=0900001680726c0b

² 32. The public, in particular voters, shall be informed, well in advance of the start of voting, in clear and simple language, about:

- any steps a voter may have to take in order to participate and vote;
- the correct use and functioning of an e-voting system;
- the e-voting timetable, including all stages.

First, the learning of the citizens how to use the voting machines and what to expect from the whole new system will increase the trust in the use voting machines.

Secondly, people need to know how to operate the machines. Apart from pure technological problems, often problems occur when voters and citizens do not operate the machines properly.

Thirdly, when using technologies in elections, there are a number of confidence challenges. When using voting machines, the main challenge is the risk for the voter that his or her vote could be traced and recorded. Thus the secrecy of the vote could be seriously compromised. Another one is the risk that the system is attacked or breaks down and the electronic recount does not correspond the real vote. As part of the voter education program specific narratives explaining those risks and their solutions need to be developed.

7. Interdisciplinary approach – training of judges

Implementing a technological element in the electoral process is a complex process that involves people from different fields of competence – IT, law, political science, public communication, etc. That requires a good level of mutual understanding and a multidisciplinary approach. This means that different professional groups need to undergo trainings in other fields in order to participate effectively in the process. One of the most important groups to be trained are the judges. Having in mind the level of electoral cases in Bulgaria, it will be crucial for them as well as for the prosecutors and investigative staff to undergo trainings on how technologies are implemented in the electoral process and particularly how this is done with voting machines.

8. A clear period for implementation with early appointment of the Election Day

The successful implementation of technologies in elections is based on detailed planning. This planning relies on a clear perspective for the period until the coming election. Only when the time frame before the election is clear, the planning process can be adequate. In the case of Bulgaria, where the implementation of the voting machines is done in period, that is already too short, it is good that the authorities reach a consensus on the date of the Parliamentary elections in 2021 in advance. The date should be set within the requirements of the constitution. The date should be announced sooner rather than later, to give the elections management body the maximum, known period of time in which to undertake the enormous quantum of work required.

These recommendations are based on expert discussions during an online workshop “Assisting the Implementation of the Machine Voting in Bulgaria and Supporting the Informed Debate”, organized by Sofia Platform Foundation and the Konrad Adenauer Stiftung.

The following experts participated in the discussion:

Peter Wolf is senior expert on technology at the International IDEA.

His work focuses on the application of digital technologies in elections, emerging challenges and the sustainable and trusted implementation of ICTs in electoral processes. He has authored numerous International IDEA publications, including on cybersecurity, certification, electronic voting, open data, and electoral management.

Jordi Barrat Esteve is a professor of constitutional law at the University of Catalonia. His research focuses the legal framework of new voting technologies and he has provided consultancies for different international organizations (e.g.: Council of Europa, European Union, OSCE/ODIHR, IDEA, IFES, OAS, A-WEB).

He has been part of the Council of Europe expert group on standards for e-voting.

Ronan McDermott is an independent election consultant with more than 20 years of experience in working with EMBs. He has helped them to develop, procure, deploy and support a variety of technologies in support of electoral processes. He has huge experience in advising on the practicalities of implementing new voting technologies.

Daniel Stefanov is an election expert. He is teaching elections and electoral systems at the New Bulgarian University in Sofia. He has participated in election monitoring missions for the EC, OCSE and other organisations. His interests are on the filed of assessing the performance of the election administration and the integrity of elections. He has work for the Bulgarian Ministry of Foreign Affairs on organising the out-of-country voting.