

Implementing and Overseeing
Electronic Voting and Counting Technologies

Key Considerations for Oversight Actors

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KEY CONSIDERATIONS:
DECISION IN PRINCIPLE

FOR OVERSIGHT ACTORS

- Have the primary reasons for considering the adoption of new technologies been clearly and publicly explained, including which specific problems technology is meant to address?
- Has the decision-making process assessed the current system; proportionality of advantages and disadvantages; costs versus benefits; technical feasibility; EMB institutional capacity; and legality of using e-technologies?
- Have key stakeholders, including parties, civil society, and the media, and the public been informed of the above assessments?
- To what extent have key stakeholders' support, opposition or other input been considered?

KEY CONSIDERATIONS:
PILOT PROJECTS

FOR OVERSIGHT ACTORS

- Is the process of procuring the pilot technology open and impartial to all vendors?
- Does the EMB provide periodic public updates and consultations related to the development and procurement of the pilot technology?
- Are voters aware of the existence of and rationale behind the pilot?
- Are stakeholders, including observer groups, political actors and voters, permitted and encouraged to observe the pilot process, and are they invited to provide feedback on the piloted technologies during the evaluation process?

KEY CONSIDERATIONS:
DECISION ON ADOPTION

FOR OVERSIGHT ACTORS

- ✓ Are the reasons for recommending adoption, additional piloting or non-adoption of technologies well-documented and made public?
- ✓ If decision to adopt is made, is it based on successful pilots in different locations and/or over a period of time? Has the decision taken into account lessons from pilots?
- ✓ Is the preliminary recommendation discussed (i.e., through consultations) with key stakeholders?

KEY CONSIDERATIONS: STANDARDS FOR IMPLEMENTATION

FOR OVERSIGHT ACTORS

- ✓ How transparent and inclusive is the process of defining national standards for electronic technologies? For example, are technical institutions/experts involved, and are public consultations held with civil society, political actors and voters?
- ✓ To what extent do the national standards comply with have international and regional principles, and standards, and best practices been considered in the development of national standards?
- ✓ To what extent have existing national technical requirements been taken into account?

KEY CONSIDERATIONS: LEGAL AND PROCEDURAL FRAMEWORK

FOR OVERSIGHT ACTORS

- ✓ Are the electronic voting and counting technologies in compliance with the constitution and/or electoral legislation? Are they in line with international and emerging standards?
- ✓ Is the appropriate secondary legislation in place to accommodate the implementation of electronic voting and counting and the processes associated with such technologies?
- ✓ Are transparency mechanisms included and clearly defined in the legal framework, such that oversight actors have sufficient access to the new processes associated with the technologies?

- ✓ During the electoral legal framework reform process, has the election management and/or legislative committee consulted political parties and civil society on the ways in which the legislation needs to be changed?
- ✓ After the legal framework has been revised, have parties and civil society been briefed on the reforms enacted pertaining to election technologies?

KEY CONSIDERATIONS: DESIGN REQUIREMENTS

FOR OVERSIGHT ACTORS

- ✓ Is the process of defining design requirements inclusive by, for example, seeking the input of various stakeholders, including political parties and civil society?
- ✓ Are there specific requirements to ensure that the systems are developed in a manner that maximizes the usability for all voters and the access afforded to groups of voters who may normally struggle to participate in the electoral process, such as voters with visual impairments, hearing impairments or motor difficulties, as well as illiterates or those from minority language groups?
- ✓ What tests and/or research, if any, have been conducted to assess the usability and accessibility of equipment? Was it conducted among voters from diverse demographics and among those who may normally struggle to participate?
- ✓ Is the work of developing technical requirements made available to the public?
- ✓ Are the experts responsible for developing design requirements mandated, and are they required to disclose any affiliations with interested parties (i.e., potential vendors)?

KEY CONSIDERATIONS: PROCUREMENT, PRODUCTION AND DELIVERY

FOR OVERSIGHT ACTORS

- ✓ Do the procurement documents cover everything that is required from the technology provider (see above)?

- ✓ Is the overall procurement process conducted in an impartial and transparent manner?
- ✓ Is the bidding process open to all vendors and competitive?
- ✓ Are the criteria for evaluation defined before the procurement process and communicated in the bidding document?
- ✓ Is the evaluation process transparent, and does it provide sufficient written documentation that allows observers to determine whether decisions were made strictly on the basis of the evaluation criteria?
- ✓ Does the selected vendor have any links to and/or conflicts of interest with relevant public officials, political leaders, candidates and/or parties?
- ✓ Are contractual documents made available to the public, so that observers can monitor the extent to which vendors comply with their obligations during the process?
- ✓ Does the contractual arrangement ensure that the EMB will remain in control of the relationship with the vendor and that the vendor is accountable to the EMB? Similarly, is the role of the vendor vis-à-vis the EMB clearly defined?
- ✓ Is the contractual timeline realistic? What are the obligations of vendors if the timeline or other terms are not met?

KEY CONSIDERATIONS: SECURITY MECHANISMS

FOR OVERSIGHT ACTORS

- ✓ Does the system only allow access for authorized users, and is that access provided in a secure manner?
- ✓ Is the physical security of machines, including data ports, protected from would-be attempts to manipulate the machines? Are party agents and election observers able to monitor any intervention that affects the system while voting and counting being conducted?
- ✓ Is the secrecy of the vote maintained, such that votes are not linked to voter identification information?
- ✓ Are there mechanisms, such as hashes, to ensure the software loaded onto machines can be verified as the EMB-tested and approved version?
- ✓ Is voting data encrypted to ensure it can be securely transmitted or transported from individual machines to the tabulation system? Is there a

mechanism, such as a digital signature, to ensure that data transmitted to the tabulation system is from a legitimate source?

KEY CONSIDERATIONS:

RECRUITMENT AND TRAINING OF PERSONNEL

FOR OVERSIGHT ACTORS

- Is the EMB staffing plan adequate for successfully implementing electronic voting and counting technologies, and are staffing plans made available to oversight actors?
- If outside technicians or consultants are involved, are their roles clearly defined and transparent?
- Do election officials, including at the polling station level, have sufficient understanding of the technologies, allowing them to clearly explain the voting and counting process to voters?
- Does the EMB have a long-term goal and plan to self-administer all aspects of electronic voting and counting in future elections?
- Do oversight actors, including parties and observer groups, have access to EMB trainings and training materials, allowing them to assess the adequacy of training, provide recommendations and build their own understanding of the technologies?

KEY CONSIDERATIONS:

PROJECT AND RISK MANAGEMENT

FOR OVERSIGHT ACTORS

- Is the project management body inclusive and diverse so as to involve a broad set of skills in implementing electronic voting and counting?
- Has the project management body made its detailed plan and timeline available to the public so that stakeholders can hold management bodies accountable to targets and deadlines?
- Does the project management body produce periodic progress reports for the public, and/or are stakeholders invited to attend certain meetings to be briefed on progress?
- Has the EMB conducted a full security risk assessment, taking into

- account technical, logistical and legal issues that could arise?
- ☑ Has the risk management plan been made public so that stakeholders may provide input?

KEY CONSIDERATIONS:

VOTER EDUCATION AND INFORMATION

FOR OVERSIGHT ACTORS

- ☑ Has the EMB developed a comprehensive plan for voter education, including sufficient time and resource allocation?
- ☑ Does the EMB strategy for voter education identify target audiences and incorporate a variety of media sources and other mediums through which those target audiences commonly consume information?
- ☑ Has the EMB provided opportunities for citizens to engage with the new voting equipment in person?
- ☑ Has the EMB made extra efforts to engage target groups, such as the elderly and disabled, via specialized voter education messages and campaigns? Have voters from minority language groups received voter information in their language?
- ☑ Have civil society groups actively engaged in voter education efforts themselves, and have they received the necessary technical information on the new technologies from the EMB to produce effective voter education materials?
- ☑ Have civil society assessed the adequacy and effectiveness of EMB public outreach efforts? Has any public opinion polling been conducted to gauge the readiness of voters?

KEY CONSIDERATIONS:

SOFTWARE/HARDWARE MAINTENANCE, STORAGE AND UPDATE

FOR OVERSIGHT ACTORS

- ☑ Has the electronic equipment been stored in a secure location between elections in a manner that prevents unauthorized tampering?
- ☑ Are party representatives and observers allowed to monitor routine access

to stored electronic equipment?

- ☑ Do observers and party observers have access to monitor the process of configuring and upgrading machines before elections?
- ☑ Are the checking, maintenance, upgrade and configuration of equipment conducted by the EMB or the vendor? If by the vendor, does the EMB have the capacity to properly oversee these processes?

KEY CONSIDERATIONS:

TESTING SOURCE CODE REVIEW AND CERTIFICATION

FOR OVERSIGHT ACTORS

- ☑ Which tests are conducted?
- ☑ Does the EMB conduct the tests or does the vendor? If the vendor, does the EMB remain engaged and provide oversight of the process?
- ☑ Are tests conducted sufficiently in advance of elections so that any problems encountered can be addressed?
- ☑ Is the source code for the electronic technologies open source? If not fully open source, do observers and party representatives have sufficient access to inspect the source code, including not being restricted in reporting their analysis of its content by the use of any non-disclosure agreements? For their part, election observers and parties should ensure they have the capacity and/or expertise to comprehensively inspect the source code.
- ☑ Are all test reports available for review by political actors and observers?
- ☑ Is an independent certification process conducted, and, if so, are the processes and results publicly available?

KEY CONSIDERATIONS:

ELECTION DAY

(SET-UP, TESTING, SECURITY, TROUBLESHOOTING)

FOR OVERSIGHT ACTORS

- ☑ How have observer groups and political parties had to change their election day strategies to effectively monitor new technologies on election day? Do they have the necessary technical expertise?

- ✓ Are machines secure during and after the transfer from storage to the polling location until voting starts? Are observers permitted to observe the delivery of equipment?
- ✓ Is there a demonstration to show that no votes have been recorded in the machine prior to the start of voting?
- ✓ Do polling officials follow procedures for set-up, processing of voters and closing the polling station, and do observers have access to all of these processes?
- ✓ Is secrecy of the vote ensured, both through the polling station arrangement and the way that assistance is offered to voters?
- ✓ If problems with equipment arise, are polling officials or authorized technicians capable of resolving them efficiently, according to procedures, and without interrupting the voting process?
- ✓ Is access to the equipment and sensitive materials sufficiently secure, controlled and recorded?
- ✓ How accessible and usable are electronic machines for voters? In particular, what are the experiences of special groups, such as disabled, elderly, illiterate or minority language voters?
- ✓ Are printouts for each voting or counting machine posted outside the polling station, together with the overall results protocol for the polling station? Are party representatives and observers given copies of results printouts or at least permitted to copy the figures?
- ✓ Are electronic voting and counting machines activity logs available for observers?
- ✓ How has the implementation of new technologies affected the conduct of voting? Have any new problems been introduced that were unforeseen, and if so, how did the EMB respond?

KEY CONSIDERATIONS:

TABULATION

FOR OVERSIGHT ACTORS

- ✓ Are sufficient security measures in place to prevent interference with the electronic transmission process?
- ✓ Are polling station level results published on the Internet in an easily-verifiable format?

- ✓ Is the tabulation process at all levels fully transparent for party representatives and observers? For example, can observers witness the data being uploaded or entered into the tabulation computers?
- ✓ How has the announcement of results changed with the implementation of new technologies (i.e., are results announced more quickly?), and how does this affect the post-election political dynamic and overall public confidence?

KEY CONSIDERATIONS: CHALLENGES AND RECOUNTS

FOR OVERSIGHT ACTORS

- ✓ Does the legal framework clearly define who can lodge challenges against results, to which body the challenge should be lodged, in what circumstances and investigation will be conducted, and in what situation a recount of the results will occur?
- ✓ Is there a voter verified paper audit trail in place that can serve as the basis for a recount?
- ✓ If relevant, is there a clear process for adjudicating ballots that cannot be read by scanners, and are stakeholders allowed and encouraged to oversee this process?
- ✓ Do the legal guidelines clearly establish what must take place in instances where recounted and original results do not match sufficiently?
- ✓ Are audit reports made publicly available?
- ✓ Does the court or adjudicating body have sufficient IT capacity to effectively rule on election technology-related cases?

KEY CONSIDERATIONS: POST-ELECTION AUDITS

FOR OVERSIGHT ACTORS

- ✓ Is there a way to compare the electronic and auditable versions of the results to confirm whether the technologies worked properly and to verify the results, such as through the use of a voter verified paper audit trail?
- ✓ Is a random manual audit conducted, during which the audit trail is

manually counted and the results compared to the electronic results generated in a random selection of polling stations? Is it conducted as soon as possible after the election, and is it fully observable by election observers, the media and political party and candidate agents? Are the results made publicly available?

- ☑ If a difference is found during the audit, is there a robust process to determine the cause of the difference and to address the cause(s) to the extent possible?

KEY CONSIDERATIONS: EVALUATION OF SYSTEM

FOR OVERSIGHT ACTORS

- ☑ Does the evaluation of the electronic technologies involve a broad range of stakeholders, including election officials, party representatives, observers, and voters?
- ☑ Are evaluation reports made available to the public?
- ☑ Have election officials facilitated any post-election dialogues or other mechanisms to provide stakeholders an opportunity to offer recommendations for future improvements?
- ☑ Is there an EMB mechanism in place for tracking the implementation of stakeholder and evaluator recommendations ahead of the next election cycle?
- ☑ Have oversight actors evaluated their own efforts to monitor the new technologies and have they shared their findings with the EMB and the public?
- ☑ Are oversight actors preparing to assess and adapt their own methodologies in relation to future electronic voting and counting implementation plans?

KEY CONSIDERATIONS: INTERNET VOTING

FOR OVERSIGHT ACTORS

- ☑ What limitations do observers and parties face in assessing the integrity of internet voting? Are there alternative strategies they can adopt to monitor

the process?

- ☑ What measures have been taken to ensure voters have a solid basis to trust internet voting systems? What level of trust do voters have in the system as a result?
- ☑ Do all stakeholders support the adoption of internet voting, and if not, how have concerns been addressed by the authorities?
- ☑ How does internet voting affect accessibility for different communities, who may have highly unequal internet access? If inequities are created, are there alternative (i.e., traditional) means by which voters disadvantaged by internet voting can cast their ballots? Has the accessibility of traditional voting methods been improved to compensate for the improved accessibility for internet voters?
- ☑ To address the reduced transparency associated with internet voting, are responsibilities separated among those administering elections for different stages of the internet voting process?
- ☑ To what extent is the secrecy of the vote protected? For example, do voters have the opportunity to repeat and cancel their votes? Is the online voter authentication secure? Are the voting servers secure? How has this security been demonstrated to the public?