



## **Electronic Elections Management System in Romania**

### **Feasibility study conclusions**

The objective of the Romania EEMS Feasibility Study project was to develop a comprehensive roadmap for the systematic deployment of a fully operational Electronic Electoral Management System (EEMS) by the Permanent Electoral Authority (PEA). This system will be capable of automating the vote authentication and vote casting/counting processes for Romanian elections, as well as the electoral administrative processes.

This project was developed over a period of 10 months in the year 2011, with election and IT&C specialists from United States, based on a grant provided by USTDA.

The scope of the Romania EEMS Feasibility Study project is limited to the legally granted span of control and guidance of the PEA for elections in Romania.

The deliverables for this project were:

- Task 1. Detailed Feasibility Study Schedule and Plan
- Task 2. User Needs Assessment Summary Report
- Task 3. Functional Requirements Assessment
- Task 4. EEMS Implementation and Investment Plan
- Task 5. Final Report document

The team developed a very detailed project management plan and schedule and executed to that plan. They next developed the high-level assessment and implementation plan combining technical, managerial, and institutional recommendations. At a technical level, the EEMS Feasibility Study delivers the information the PEA needs to determine its national-level EEMS functional and non-functional requirements, including hardware, software, geographic information systems (GIS), a Relational Database Management System, network management tools, security solutions, and communications equipment. Further the study provides detailed information on the potential cost and potential funding sources for this system.

### **Conclusions of the study - Benefits of Implementing the EEMS**

The implementation of the EEMS system will benefit the PEA by streamlining the management of records and communication between all who participate in the electoral process. As a result of a more streamlined process in the day-to-day operation of the PEA, the Government will realize costs savings.

The EEMS will provide various communication tools including video conferencing with their regional branches. These types of meetings can include other election



officials such as mayors or prefects. This function will ensure a more efficient method of exchanging information. There have been cases in the past, where it was physically impossible for the PEA to visit a branch location due to weather or other conditions. The use of this tool will ensure a meeting can go forward. Video conferencing within EEMS can be integrated with other existing solutions used by other institutions that will provide timely exchange of information between institutions. There will also be reduction in travel; therefore, providing for another cost reduction in the budget.

The election data records management system (EDRMS) will be a powerful tool and will provide efficiency to various workflows. The EDRMS will improve the information workflow by automating much of the processes and procedures of the day-to-day workflow. Every department within the PEA will benefit from the requirements of the EDRMS. It will provide multiple functions including record location, records reporting, producing statistical reports including voting history and voting trends and managing workflow processes.

One of the functions that will assist the PEA with various reports will be the ease of the design of the report and the flexibility to change parameters for a report. This function will simplify reporting and allow the PEA to provide reports and information as required or requested by other people involved in the process, political parties or interested citizens of Romania. It will provide citizens the opportunity to view voting history from past elections based on report consolidation of election results. The system will also manage record retention of various documents and produce record destruction reports.

Another function will allow the PEA to redact information in the files that are not in the public record. Tracking of possible legislation or proposed legislation can be accomplished with the EDRMS. The EDRMS will also provide security for the detection of unauthorized users attempt to gain access to the system.

Improved communication between institutions can be accomplished through the EDRMS using such tools as instant messaging. Other institutions having election-related duties will have access to the system through rolls and permissions which will improve their process dealing with election duties.

Improving workflow and efficiency of the PEA and providing a mechanism to make information readily available is good governance.

The election configuration element of the EEMS will provide uniformity in dealing with various processes of the election. The PEA will use the EEMS to track political party activity including financing and automate information regarding campaign regulation information such as advertising and the areas where signs can be posted. The political parties may be assigned limited use of the system, i.e. to enter directly into the system all relevant data regarding the candidate and the political party. Once the data is entered and proofed, there will be no need to enter it again in any part of the EEMS. As a result, when a ballot generation report is produced, the candidate's information will be correct. It will be correctly printed on the ballot and on various reports. This will reduce any possibility of mistakes being made with the parties and candidates. The fewer the mistakes made in the election process results will increase confidence level of process by the citizens.



The polling location management will provide a tool to maintain attributes of the polling location. This will include such information such as address, contact information for the polling station, any special supplies needed for that location. If the data is stored in an electronic format, the EEMS will be configured to import that data. The NIS will continue to be the owners of the GIS system, but will see benefits in the workflow using the enhancements brought by the EEMS.

With the GIS system, a complete address or description of the location will be available. Using information provided by the GIS will assist in determining new locations for polling stations as areas of Romania grow in population. The voter registration data will also be imported into this section of the EEMS. The polling location for each voter will be provided and the system will allow a search for that data. If a voter calls the PEA or other institutions that have access to this function, the employee will be able to quickly respond to the voter as to where to vote. If the voter name is not found, the worker can inform the voter so they can contact the sheriff of the local to resolve the issue. This function will provide a valuable service to the voter. With some 18,000 polling stations to manage, this tool will be essential both at the local level and the PEA for communication purposes and budgetary purposes.

It is estimated that 100.000 people are involved in the organization and the conduct of elections (of whom about 40.000 represent polling station election officials while 60.000 represent members of political parties). Managing the poll workers at the various 18,000 locations is burdensome; however, with the EEMS, the process will be automated. The named president of each polling station has to be submitted for approval by the PEA. This function will make this process much easier with information readily available. At each level of the election bureaus, the names of the members have to be maintained. EEMS will assist in this manner can provide a complete list of workers for an election to the PEA. Once the names of workers are entered into the system, they can be assigned for future elections if chosen by the political formation they represent.

The election management function of the EEMS will provide a tool to generate an election calendar for each election. The MAI together with the PEA currently determine a calendar of events based on law and decisions of the government for a specific election. With the use of the EEMS, events will be input into the system and the system will generate the date or last day to perform an event. The date or day will be based on time lapse between events and Election Day. Dates can be determined with respect to the date of the decision to call the election or Election Day. Once the calendar has been defined, it will ensure the accuracy of the calendar for each election and eliminate the process of re-creating a calendar for each election and streamline the process. Only when legislative changes or decisions change a time line will the calendar need to be changed. This improves the flow of the process and reduces the possibility of making an error.

One of the major functions of the PEA is to monitor the election functions. This tool will allow the PEA to perform such tasks in a more efficient and effective manner reducing the possibility of making an error. With direct communication with the managers at the 8 branch locations or the prefects or other electoral officials at the bureaus, electoral management in the area of monitoring will be improved.



Romanian citizens will benefit from a call center that will be provided in the EEMS. They can ask general questions about election law file complaints or incidents occurring at their polling location or even inquire as to the location of their polling location. (It is noted that election challenges are proper if filed with the president of the polling place, not the call center).

Romanians abroad will also have the web portal to obtain information about the election, i.e. polling locations, dates, hours the polls are open in the country of their temporary residence. The election workers will also benefit from the call center because there will be immediate access to a person should a question arise in the process or there is a questions regarding the voting machine.

The e-Learning platform will be of utmost importance to the overall success of EEMS and future elections. The training needed for a successful implementation of this system will improve the confidence of the Romanian citizens when exercising their right to vote. The training that is developed by the PEA will be used throughout the country; therefore, ensuring the Romanian people uniformity in implementation and transparency in the election process.

Training will include all aspects of the election process, both technical skills needs, qualifying the voter with the new electronic voter registration system, polling place set up and Election Day processes, tabulating election results in a timely manner, submitting various reports at the close of the election to name just a few possibilities. The mayors and the prefects will have the advantage of using this tool for training the local election officials. They will have the advantage to scheduling the training that will be convenient for the people because e-learning will be on a web platform and is available at all times. The training is not limited to only election workers. The MAE can use the training for the workers in foreign countries through the web portal. The PEA will have the opportunity to develop various training manuals to target interested markets, i.e. political parties, candidates, various bureaus, and citizens. The sharing of training materials between election workers, election bureaus, party activists, monitors of the election and other interested parties will be beneficial because everyone will be receiving the same information, eliminating any fear that one group is being treated different than any other group. This will eliminate in any duplication of materials distributed by other organizations outside of the PEA.

This is not to say political parties will not have their own documentation and training on various issues because they will. However, with uniform documentation being presented by the PEA, the profession independent election experts will result in confidence in the information. One theory is that the more people understand the voting process, the more comfortable they are will the process and the more likely they will participate in the election by voting.

The PEA has several voting initiatives in place. Good government practices in many areas provide for programs often referred to as Project VOTE. (Voters of Tomorrow through Education). This is a curriculum developed by election experts for teachers to begin educating students at an early age about the election process. With E-Learning, the development of this program or other programs by the PEA could prove beneficial to the citizens of Romania.



With the adoption of an electronic voter registration system, ensuring that only qualified persons are entitled to vote, will increase the integrity of the election. The EEMS system will receive imports from the voter registration system prior to an election. Access to the real-time, on-line permanent system by workers at the polling station will allow the processing and verification of the voter to be instantaneously. The voters identify card will have a barcode or similar electronic means for a scanner to read the data and locate the voter on the rolls. Once a voter is qualified, the EEMS will record voting history for that person. While the voter registration system is not a direct product of the EEMS, the EEMS will be integrated with the new system and the Romanians will experience more confidence in a permanent electoral list. One master list for the country will be a reliable and effective mechanism for crosschecking for possible duplicate names on the lists. This will provide integrity to the election process and instill one of the basic concepts of democracy, one man - one vote.

With the automation of the voter registration and integration of the GIS tool in the EEMS, citizens are more likely to be assigned to the correct polling location for their residence. Automatic updating of the rolls, elimination of duplicates on the rolls and more efficient method of assigning citizens to polling stations will have a positive effect on the democratic process of voting.

With an automated voter registration system, permanent elector rolls should be continually updated with corrections, additions and deletions throughout the year and during the “in-between” intervals of the elections. This would reduce last minute changes needed prior to the election reducing the risk of error. Because the new voter registration system will be managed by PEA, the functions performed currently by the MAI with regard to maintaining and providing voter lists to the mayors prior to an election should be transferred to the PEA. The mayor will have access to the voter registration system through rolls and permissions to update and maintain voter records on a real-time basis or through imports as determined by PEA.

One of the most obvious changes brought by the EEMS will be the implementation of an electronic voting system. There are several configurations discussed in the requirements. Once a system is implemented throughout the country, every Romania citizen will have the same opportunity as the next citizen. The system will present to the voter in user-friendly manner instructions for using the machine, how many candidates the voter is entitled to vote in a race, a notification prior to casting the ballot that the voter either under-voted their ballot or over-voted their ballot. This allows the voter to correct the ballot before casting the ballot and avoid mistakes. Most important, the ballot will be counted electronically in equipment designed to perform that function. This will also allow vote reporting in a faster more reliable manner. The accumulation of encrypted votes from all polling stations will be automated; therefore, allowing the CEB the advantage of reporting accurate and final votes. These systems will be very secure and well tested prior to an election.

The promise of electronic voting machines is not only the ability to accurately count votes, but also to provide a means of effectively making selecting voter choices



easier, flagging or disallowing voting mistakes. All voters will have uniform instruction and voting procedures regardless of any outside influence, Voting machines also have purchasing options that would provide a person with a physical disability the opportunity to vote a secret ballot.

The EEMS will provide a method for inventory tracking of the new voting machines as well as other election equipment such as scanners and computers. The EEMS will provide an accountability to verify that all inventories were returned. Assigning specific machines to a polling location is imperative to ensure the correct ballot style is provided for that location. The inventory control will also include maintenance schedules for the machines and whether there were any issues during the general maintenance. EEMS will provide the means that will result in a more streamlined, accurate, and manageable function.

Overall, the EEMS system will promote transparency in all stages of the management of election processes, provide tools for the PEA and other election officials who have election responsibilities to be accountable to the citizens and to the government, provide tools to disseminate voter information and educational training materials. The PEA and therefore, the government will see cost-effective measures created by the implementation of the EEMS. The EEMS will also provide tools to maintain uniformity in the application, and operation of the election laws. In performing this duty, the PEA can prepare detailed and comprehensive written directives and instructions relating to election processes. The EEMS will provide a cost effective and efficient way to distribute these materials to the appropriate local authorities having duties in the administration of elections. They will have the tools to better plan for elections and better planning results in cost saving measures. And finally, with the professional subject matter experts of the PEA and implementation of the EEMS, the citizens of Romanian will enjoy the enhancement of democratic governance.

Complete result of the study can be found on:

<http://www.roaep.ro/ro/section.php?id=27&l2=58>